THE MANAGER AT WORK —

DETERMINING HIS ACTIVITIES, ROLES,

AND PROGRAMS BY STRUCTURED OBSERVATION

by

HENRY MINTZBERG

B. Eng., McGill University (1961)
B.A., Sir George Williams University (1962)
S.M., Massachusetts Institute of Technology (1965)

SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE

DEGREE OF DOCTOR OF PHILOSOPHY

at the

MASSACHUSETTS INSTITUTE OF

TECHNOLOGY

January 1968

Signature of Author.......................... Alfred P. Sloan School of Management

January 18, 1968

Certified by.................................................. Thesis Supervisor

Accepted by........................................................ Chairman, Departmental Committee on Graduate Students
Restricted Distribution Statement

This thesis has been given limited reproduction with the permission of the Alfred P. Sloan School of Management. However, this copy is issued with the understanding that none of the data resulting from this investigation will be used for advertising or publicity purposes, and that the thesis is solely for the confidential use of the organization or individual to whom it is addressed.
THE MANAGER AT WORK —
DETERMINING HIS ACTIVITIES, ROLES,
AND PROGRAMS BY STRUCTURED OBSERVATION

by

HENRY MINTZBERG

Submitted to the Alfred P. Sloan School of Management in January, 1968, in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Management.

ABSTRACT

Despite the growing need for a better understanding of the manager's role in complex organizations, and despite a great body of literature relating to the manager, there exists very little comprehensive theory based on empirical investigation of managerial activity. This research was designed to answer a number of basic questions about the work of managers, and about their relationship to organizational information processing and organizational strategy-making.

It was necessary to design a methodology uniquely suited to this research. "Structured observation" combined the flexibility of observation with the discipline of seeking certain types of structured data. During observation, three records were kept. The chronology record maintained data on activity patterns, the mail record maintained data on each piece of mail, and the contact record maintained data on each verbal contact.

Five chief executives of large organizations were each observed for one week. Despite the brevity of the periods of observation, the data for each of the five men are remarkably similar. These data — derived from 659 pieces of input mail, 231 pieces of output mail, and 368 verbal contacts — together with the anecdotal materials provide the basis for three levels of analysis:

(1) Based on the quantitative data, a number of distinguishing characteristics of managerial work are noted: The manager performs a great quantity of work at an unrelenting pace; his activities are varied and brief, and there is little continuity between successive activities; he exhibits a preference for issues that are current, specific and ad hoc; and a preference for the verbal means of communication; he is able to control his own activities despite what appears to be the predominance of obligations.
ABSTRACT (Continued)

(2) From an analysis of the reasons for the manager's involvement in each activity, a set of thirteen basic managerial roles are defined. Four of these roles — formal authority, figurehead, activator, and contact man — stem from the status of holding managerial office. Five others — nerve center, spokesman, disseminator, expert, and value determiner — relate to the manager's central role in the organization's information system. The remaining four roles — resource allocator, crisis-handler, bargainer, and entrepreneur — describe the manager's control over the strategy-making process. The analysis of managerial roles indicates that the manager is a generalist in the organization of specialists; that he is the basic informational link with the organization's environment; that he deals largely with uncertain information that must be transmitted quickly; that the organizational strategy he is responsible for guides involves as the result of a variety of day-to-day decisions.

(3) Managers appear to operate a number of "programs." To the extent that these programs are explicit and to the extent that they can be formally learned, management can be called a science. It appears, however, that few of these programs are explicit. An initial step in the development of a science of management is to identify the manager's programs. Thus, nine programs are identified and described briefly. It is believed that this kind of description provides the strongest base on which to develop meaningful normative conclusions. Thus, a series of recommendations are made on "reprogramming" four areas of managerial work — the scheduling of activity, the reporting of information, the disseminating of information, and the making of strategy.

Finally, a number of general conclusions on the future of managerial work are drawn. The process of managing will continue, for the foreseeable future, to be based largely on innate skills as opposed to skills that can be learned in a formal way; the student of the school of management must have greater opportunity to develop an analytical understanding of the complex process of managing; the management analyst must develop a more realistic understanding of managerial work and of the individual manager's information; the researcher must focus more attention on managerial work and managerial programs, and it is likely that he will find "structured observation" a useful methodology.

Thesis Supervisor:  Donald C. Carroll  
Title:  Associate Professor
January 18, 1963

Professor E. Neal Hartley
Secretary of the Faculty
Massachusetts Institute of Technology
Cambridge, Massachusetts 02139

Dear Professor Hartley:

In accordance with the requirements for graduation, I herewith submit a thesis entitled The Manager at Work -- Determining His Activities, Roles, and Programs by Structured Observation

Sincerely

Henry Mintzberg
ACKNOWLEDGEMENTS

The first formal stimulus for this research was provided by William Pounds of the M.I.T. Sloan School, who suggested that I might consider analyzing the work of the chief executive of a large governmental agency in Washington. I remained wary of embarking on such an open-ended project until I attended the conference on the impact of computers on management held at M.I.T. in April, 1966. There I listened to hours of, what I believed to be, fruitless debate about the nature of the work of the manager. It was clear that the progress of management science would be stifled until a more realistic description of managerial work was developed. Thus, I came to believe that the study of an issue of such breadth was warranted.

I enjoyed doing the research and I remain enthusiastic about it. In part, I must attribute this to the nature of the topic and the methodology used to research it. However, I must also attribute this to a number of people who contributed both by enhancing my enthusiasm with their own, and by trying in various ways to make this a meaningful document.

I must begin by thanking Edward Bowman who volunteered to advise me through a rather unconventional doctoral program, and who provided the kind of support I required. When he left M.I.T. to take an administrative post at Yale University, James Hekimian assumed the position of advisor. It is he, more than any other person, whom I must thank for guiding this research. He never lost sight of the basic objective -- the completion of a meaningful thesis. Toward this end, he selflessly maintained his support and freely gave of his time, even after he left M.I.T. to take an administrative post at Northeastern University. The thesis committee, consisting of James Hekimian, Donald Carroll, and Charles Myers, was above all else empathetic and enthusiastic, and I thank them for this. Donald Carroll considerably suggested in toward the end to assume formal role of supervisor when James Hekimian could no longer sign on behalf of M.I.T.

The success of this thesis depended on those managers who allowed me to study their work. First, I would like to express my appreciation to Jack Mintzberg of Ever Ready Tag and Label Co., Ltd., to William Pounds of the Sloan School, and to Irving Rabb of Stop and Shop, Inc., for participating in the preliminary research and thereby enabling me to develop the methodology. Of course, my great debt is to the five men who allowed me to watch their every move for one week. I thank James M. Gavin of Arthur D. Little, Inc., Bernard J. O'Keefe of EG&G, Inc., John H. Knowles of the Massachusetts General Hospital,
ACKNOWLEDGEMENTS (Continued)

Harry B. Henshel of the Bulova Watch Co., and Charles E. Brown of the Newton School System, both for their participation and for their consideration during the weeks of observation.

To the extent that this document is readable, the reader must join me in thanking Billy Litwack, who spent many evenings translating my ill-expressed thoughts into understandable and acceptable prose. Various members of my family — wife, mother, cousin (George Mintzberg) — also contributed in this regard. I must also thank Jane Bryant who created with her typewriter a neat whole from some rather messy parts. Bob Ente of Peat, Marwick, Livingston, and Co., also helped with some of the problems associated with printing the thesis.

Fellowship money also helps, and for this assistance over the years I thank the Quebec Department of Education, the M.I.T. Sloan School, and the Ford Foundation.

Finally, I must express my love and my appreciation to Yvette, who never thought it abnormal that she should suspend her career and leave her contact with the reality of city life in Boston for an extended period of hibernation in the "cabin by the Lake" in Ste. Agathe des Monts, while her husband gradually wrote a four hundred page thesis.

Thus, even a doctoral thesis is not really "independent" research. Without the faculty that guides the student, and without those who give analytical, technical, material, and personal support, the research would not be possible. I thank these people both for helping to see me through this research, and for the effect their support of me will have on my career in the study of management.
BIOGRAPHICAL NOTE

A native on Montreal, Canada, Henry Mintzberg received his Bachelor's degree in mechanical engineering from McGill University in 1961. He then joined the Operational Research Branch of the Canadian National Railways, where he remained for two years. At the same time, he enrolled in the engineering division of Sir George Williams University, and received the degree of Bachelor of Arts in 1962.

In 1963, he entered the Master of Science program of the M.I.T. Sloan School of Management. After receiving the S.M. degree in 1965, he continued at the Sloan School for the degree of Doctor of Philosophy, with a major in Policy, and minors in Organizational Studies, Information and Control Systems, and Political Science. While at M.I.T., he received fellowship awards from the Quebec Department of Education, the M.I.T. Sloan School, and the Ford Foundation.

Mr. Mintzberg has engaged in consulting studies, primarily in the areas of planning and organization, for the Canadian Government, for state and local governments in the United States, and for businesses of various sizes both in Canada and in the United States. He is the author of "The Science of Strategic Planning," which appeared in the Spring, 1967, issue of the Industrial Management Review, and co-author, with James S. H. Potamkin, of "The Planning Dilemma," which is scheduled to appear in the May, 1968, issue of the AMA Management Review.

He has recently been appointed to the post of Assistant Professor, Faculty of Management, McGill University.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>THE NEED TO STUDY MANAGERIAL WORK</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>II</td>
<td>MANAGERIAL WORK IN THE LITERATURE</td>
<td></td>
</tr>
<tr>
<td>2.1</td>
<td>Classical View: POSDCORB</td>
<td>18</td>
</tr>
<tr>
<td>2.2</td>
<td>Anecdotal View: The Case Study</td>
<td>22</td>
</tr>
<tr>
<td>2.3</td>
<td>Data View: The Background of the Manager</td>
<td>28</td>
</tr>
<tr>
<td>2.4</td>
<td>Leadership View: Power and Personality</td>
<td>30</td>
</tr>
<tr>
<td>2.5</td>
<td>Strategy View: Managerial Decision-Making</td>
<td>31</td>
</tr>
<tr>
<td>2.6</td>
<td>Empirical View: Managerial Time Allocation</td>
<td>32</td>
</tr>
<tr>
<td>2.7</td>
<td>Missing Views: Managerial Activity</td>
<td>40</td>
</tr>
<tr>
<td>III</td>
<td>A METHOD TO STUDY MANAGERIAL WORK</td>
<td></td>
</tr>
<tr>
<td>3.1</td>
<td>Four Research Premises</td>
<td>51</td>
</tr>
<tr>
<td>3.2</td>
<td>Collecting and Coding the Data</td>
<td>55</td>
</tr>
<tr>
<td>3.3</td>
<td>Reducing the Data</td>
<td>71</td>
</tr>
<tr>
<td>3.4</td>
<td>Choosing Five Managers</td>
<td>79</td>
</tr>
<tr>
<td>3.5</td>
<td>Success of the Field Work</td>
<td>81</td>
</tr>
<tr>
<td>3.6</td>
<td>Hawthorne Effects</td>
<td>90</td>
</tr>
<tr>
<td>IV</td>
<td>CATEGORIZING MANAGERIAL WORK</td>
<td></td>
</tr>
<tr>
<td>4.1</td>
<td>The Chronology Record:</td>
<td>95</td>
</tr>
<tr>
<td>4.2</td>
<td>Profile of the Managerial Day</td>
<td>100</td>
</tr>
<tr>
<td>4.3</td>
<td>The Mail Record: Flow of Documented Information</td>
<td>106</td>
</tr>
<tr>
<td>4.4</td>
<td>The Contact Record: Nature of Verbal Interaction</td>
<td>124</td>
</tr>
<tr>
<td>4.5</td>
<td>A Note on the Design of the Working Day</td>
<td>144</td>
</tr>
<tr>
<td>4.6</td>
<td>A Note on the Secretary's Role</td>
<td>148</td>
</tr>
<tr>
<td>4.7</td>
<td>A Note on the Difficulties in the Coding Process</td>
<td>151</td>
</tr>
<tr>
<td>V</td>
<td>SOME DISTINGUISHING CHARACTERISTICS OF MANAGERIAL WORK</td>
<td></td>
</tr>
<tr>
<td>5.1</td>
<td>Great Quantity of Work and Unrelenting Pace</td>
<td>163</td>
</tr>
<tr>
<td>5.2</td>
<td>Variety, Discontinuity, and Brevity of Activity</td>
<td>164</td>
</tr>
<tr>
<td>5.3</td>
<td>Preference for the Current, the Specific, the Ad Hoc</td>
<td>166</td>
</tr>
<tr>
<td>5.4</td>
<td>Between the Organization and a Network of Contacts</td>
<td>171</td>
</tr>
<tr>
<td>5.5</td>
<td>Preference for Verbal Media</td>
<td>174</td>
</tr>
<tr>
<td>5.6</td>
<td>Self Control Despite Obligations</td>
<td>178</td>
</tr>
<tr>
<td>5.7</td>
<td>A Note on Manager Differences</td>
<td>187</td>
</tr>
<tr>
<td>VI</td>
<td>REDEFINING THE MANAGER'S ROLES</td>
<td></td>
</tr>
<tr>
<td>6.1</td>
<td>The Status Roles</td>
<td>208</td>
</tr>
<tr>
<td>6.1.1</td>
<td>Manager as Formal Authority</td>
<td>215</td>
</tr>
<tr>
<td>6.1.2</td>
<td>Manager as Figurehead</td>
<td>215</td>
</tr>
<tr>
<td>6.1.3</td>
<td>Manager as Activator</td>
<td>217</td>
</tr>
<tr>
<td>6.1.4</td>
<td>Manager as Contact Man</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td></td>
<td>221</td>
</tr>
</tbody>
</table>
# Table of Contents (Continued)

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2</td>
<td>The Information Processing Roles</td>
<td>224</td>
</tr>
<tr>
<td>6.2.1</td>
<td>Manager as Nerve Center</td>
<td>224</td>
</tr>
<tr>
<td>6.2.2</td>
<td>Manager as Disseminator</td>
<td>234</td>
</tr>
<tr>
<td>6.2.3</td>
<td>Manager as Spokesman</td>
<td>236</td>
</tr>
<tr>
<td>6.2.4</td>
<td>Manager as Expert</td>
<td>237</td>
</tr>
<tr>
<td>6.2.5</td>
<td>Manager as Value Determiner</td>
<td>238</td>
</tr>
<tr>
<td>6.3</td>
<td>The Strategy-Making Roles</td>
<td>242</td>
</tr>
<tr>
<td>6.3.1</td>
<td>Manager as Resource Allocator</td>
<td>243</td>
</tr>
<tr>
<td>6.3.2</td>
<td>Manager as Crisis Handler</td>
<td>260</td>
</tr>
<tr>
<td>6.3.3</td>
<td>Manager as Bargainer</td>
<td>267</td>
</tr>
<tr>
<td>6.3.4</td>
<td>Manager as Entrepreneur</td>
<td>268</td>
</tr>
<tr>
<td>6.4</td>
<td>Generalizing the Manager's Roles</td>
<td>270</td>
</tr>
<tr>
<td>6.5</td>
<td>A Note on Strategy-Making in the Organization</td>
<td>273</td>
</tr>
<tr>
<td>VII</td>
<td>Programming Managerial Work</td>
<td>287</td>
</tr>
<tr>
<td>7.1</td>
<td>Description: The Programmed Manager</td>
<td>290</td>
</tr>
<tr>
<td>7.1.1</td>
<td>Scheduling Program</td>
<td>294</td>
</tr>
<tr>
<td>7.1.2</td>
<td>Program to Process Requests</td>
<td>296</td>
</tr>
<tr>
<td>7.1.3</td>
<td>Information Filtering and Switching Program</td>
<td>297</td>
</tr>
<tr>
<td>7.1.4</td>
<td>Revise Storage Program</td>
<td>297</td>
</tr>
<tr>
<td>7.1.5</td>
<td>Information Disseminating Program</td>
<td>298</td>
</tr>
<tr>
<td>7.1.6</td>
<td>Program to Define Entrepreneurial Programs</td>
<td>299</td>
</tr>
<tr>
<td>7.1.7</td>
<td>Program to Execute Entrepreneurial Programs</td>
<td>300</td>
</tr>
<tr>
<td>7.1.8</td>
<td>Choice of Program</td>
<td>302</td>
</tr>
<tr>
<td>7.2</td>
<td>Prescription: Reprogramming Managerial Work</td>
<td>303</td>
</tr>
<tr>
<td>7.2.1</td>
<td>Reprogramming Scheduling Activity</td>
<td>308</td>
</tr>
<tr>
<td>7.2.2</td>
<td>Reprogramming the Information Reporting System</td>
<td>312</td>
</tr>
<tr>
<td>7.2.3</td>
<td>Reprogramming the Information Disseminating System</td>
<td>314</td>
</tr>
<tr>
<td>7.2.4</td>
<td>Reprogramming Strategy-Making</td>
<td>318</td>
</tr>
<tr>
<td>VIII</td>
<td>A Study of Managerial Work in Review</td>
<td>336</td>
</tr>
<tr>
<td>8.1</td>
<td>A Summary of the Research</td>
<td>336</td>
</tr>
<tr>
<td>8.2</td>
<td>The Future of Managerial Work</td>
<td>365</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>374</td>
<td></td>
</tr>
</tbody>
</table>
# LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diary Recording Form Designed by Carlson for Use by the Managers</td>
<td>61</td>
</tr>
<tr>
<td>2</td>
<td>Collecting and Reducing the Data</td>
<td>82</td>
</tr>
<tr>
<td>3</td>
<td>Analysis of the Chronology Record</td>
<td>101</td>
</tr>
<tr>
<td>4</td>
<td>Frequency Distribution of Managerial Activities by Duration</td>
<td>102</td>
</tr>
<tr>
<td>5</td>
<td>Distribution of Activities by Media</td>
<td>103</td>
</tr>
<tr>
<td>6</td>
<td>Analysis of the Mail Record: Input</td>
<td>107</td>
</tr>
<tr>
<td>7</td>
<td>Analysis of the Mail Record: Output</td>
<td>108</td>
</tr>
<tr>
<td>8</td>
<td>Analysis of Each Type of Input Mail</td>
<td>109</td>
</tr>
<tr>
<td>9</td>
<td>Distribution of Input Mail</td>
<td>112</td>
</tr>
<tr>
<td>10</td>
<td>Distribution of Output Mail</td>
<td>113</td>
</tr>
<tr>
<td>11</td>
<td>Flow of Documented Information</td>
<td>123</td>
</tr>
<tr>
<td>12</td>
<td>Analysis of the Contact Record</td>
<td>125</td>
</tr>
<tr>
<td>13</td>
<td>Analysis of Each Type of Contact</td>
<td>126</td>
</tr>
<tr>
<td>14</td>
<td>Distribution of Number of Verbal Contacts by Number of Participants</td>
<td>129</td>
</tr>
<tr>
<td>15</td>
<td>Distribution of Verbal Contacts by Nature of Participants and Form of Initiation</td>
<td>130</td>
</tr>
<tr>
<td>16</td>
<td>Distribution of Verbal Contacts by Location</td>
<td>131</td>
</tr>
<tr>
<td>17</td>
<td>Distribution of Verbal Contacts by Purpose</td>
<td>132</td>
</tr>
<tr>
<td>18</td>
<td>Nature of Verbal Interactions</td>
<td>145</td>
</tr>
<tr>
<td>19</td>
<td>The Manager's Roles</td>
<td>213</td>
</tr>
<tr>
<td>20</td>
<td>The Manager in the Information Flow</td>
<td>243</td>
</tr>
<tr>
<td>11</td>
<td>The Manager's Programs</td>
<td>302</td>
</tr>
</tbody>
</table>
"What does a manager do?" I once asked a group of foremen. Here are two typical answers I received:

"He's the guy who gives orders to people."
"He sits in a plush office at the corner of the building and drives a large automobile."

Naturally, when I related such answers to the top officials of the company, they were derisive. However, when I asked the executives to answer the question themselves, they did not do nearly as well. At least the foremen based their responses on reliable first-hand observation. The managers themselves could only provide responses that were nothing more than second-hand clichés. For example, they said that —

They "organize things" — but not one could remember who designed the existing structure, or explain how it contributed to the achievement of corporate objectives.

Their job is "getting things done," but there was little agreement concerning which things were meant.

At the end of the discussion, we were no closer to solving the riddle of the manager's job than when we began.

Seymour Tilles

---

To the manager falls the enormous responsibility of guiding the formal organizations of society, organizations that are continually becoming larger and more complex. Now, more than ever before, we must be able to understand the work of managing, so that managers may derive the benefits of scientific investigation and so that we may train in a meaningful way those who are to assume managerial positions.

Yet the literature on managerial work, although very extensive, is often surprisingly superficial. The manager is generally viewed from a distance, in vague terms that emphasize his potency and authority. The literature tells much of the giants of industry and government making decisions that change the course of history; it tells very little of what ordinary managers do between 9 AM and 5 PM, or, indeed, why they are there in the first place.

When this research was first undertaken, a number of guiding questions were posed:

What kinds of tasks, such as exception handling, problem finding, authorizing, and reviewing, does the manager perform?

To what extent can his work be called "programmed"?

To what extent is his work ceremonial?

How does he find problems and opportunities?

To what extent does he react to external stimuli?

How does he act as a medium of communication between various organizational groups, and between his organization and outside influences?
What kinds of data does he receive and in what forms?

What can be concluded about his role in the development of organizational values and organizational strategy?

In fact, there was one all-encompassing question: What does the manager do? Its answer should underlie the efforts of all management scientists, yet the question has never been answered in the literature of management science.

At a recent conference, a number of America's foremost researchers in the field investigated the impact that the computer would have on the manager. After many hours of debate, a participant commented:

I'd like to return to an earlier point. It seems to me that until we get into the question of what the top manager does or what the functions are that define the top management job, we're not going to get out of the kind of difficulty that keeps cropping up. What I'm really doing is leading up to my earlier question which no one really answered, and that is: Is it possible to arrive at a specification of what constitutes the job of a top manager?²

His question remained unanswered.

In one decade, we have witnessed the acceptance of the computer, and of concepts such as formal strategic planning and operations research. Yet, today, if one looks for a description of managerial

work, one finds the same words used by Henri Fayol at the turn of the century. The following is from a recent book:

The manager, then, plans, organizes, motivates, directs, and controls. These are the broad aspects of his work. He adds foresight, order, purpose, integration of effort, and effectiveness to the contributions of others. That is the best use of the word "manage". That is the work of the manager.\(^3\)

Sometimes other words are used. The reader is told that managers should plan and delegate more frequently, that the leader is isolated from his organization, hearing only what subordinates wish him to hear, that the chief executive's time horizon is measured in years, that managers do the unstructured work in their organizations. Yet most of these words have only been superficially defined, usually without regard to empirical evidence.

As the management scientist at the conference found, there can be little growth in the science of management until there is an adequate and realistic description of managerial work. Planners, information technologists, and operations researchers, among others, build systems to be used by the manager. Can these systems succeed if they are built for managers who "plan" and "organize"? For as long as the management analyst's models of the man he works for are based on vague generalities and inaccuracies, the relevance of his systems must be open to question.

---

For these reasons, this research focuses directly on the work of the manager. The objective is to use the process of induction to build descriptive theory of managerial work. This is not a study of one specific aspect of managerial work, such as decision-making, leadership style, innovation, or power. Rather, these are of concern only as they enter into the set of actual activities in which managers engage.

Seven chapters follow. In Chapter II, the arguments presented above are developed with reference to a survey of six views of the manager in the literature. In Chapter III, the design of a particular methodology ("structured observation") is discussed, and the reasons for its choice as well as the implications of its use are described. Then, in Chapter IV, the research data are presented in detail in a number of forms.

Three levels of theory are presented in Chapters V, VI, and VII. First, from an analysis of the quantitative data, a number of the distinctive characteristics of managerial work are discussed. Then, from an analysis of the reasons for the manager's participation in activities, a set of basic managerial roles are defined. Finally, a concentrated analysis in Chapter VII provides some insight into the basic set of programs used by the manager to perform his work.

At the end of this section, a number of normative conclusions are reached. Here, an attempt is made to avoid the generalized lecturing (e.g., managers should plan) that is so common in the literature and that is so seldom heeded. Rather, the conclusions are
reached in the manner of Frederick W. Taylor. From an adequate description of actual procedures (or programs), the analyst is able to study and redesign (or reprogram) the work.

In Chapter VIII, this research is summarized, and the implications of the research for the manager, the management school, the management analyst, and the researcher are discussed.
CHAPTER II

MANAGERIAL WORK IN THE LITERATURE

We know more about the motives, habits, and most intimate arcana of the primitive peoples of New Guinea or elsewhere, than we do of the denizens of the executive suites in Unilever House...

Roy Lewis and Rosemary Stewart

A comprehensive report of the writings on the manager would likely take a team of researchers many years to develop. One man would be assigned to read the management science periodicals — Administrative Science Quarterly, The Industrial Management Review, The Journal of Management Studies, and so on. At the other extreme, another might concentrate on the popular periodicals — Fortune, Business Week, Forbes, etc. A study of autobiographies, biographies, and novels about the manager would require a number of man-months, and there would still be left the many hundreds of empirical, theoretical, and quasi-theoretical books which analyze managerial personality and work.

---

By sampling much of the peripheral literature, and by discussing at length the works that treat in more depth the nature of managerial work, I propose to show that all these man-years of effort would not result in success if the reader were trying to find out what managers actually do.

Despite early recognition, this situation has persisted. In 1951, introducing his famous study of nine Swedish managers, Sune Carlson claimed:

The literature is more concerned with general speculations regarding the functions of executives than with actual descriptions of their work.

A number of studies followed that of Carlson, but the calls for a description of managerial work did not cease. Haire, in 1959, and Dubin, in 1962, pointed to the lack of theory:

Attention still falls largely on the behavior and motives of hourly paid and clerical workers in the organization. When management is studied, it is almost exclusively in terms of decision-making. Surprisingly, there has been relatively little interest in either the motives or the behavior of management outside this one area...we have virtually no studies of what management actually does.

---


3See Section 2.6.

It is astonishing that our allegedly activist society — the society of doers ("the difficult we do immediately; the impossible takes a little longer") — is one in which most of the public and the academic thinking about management of enterprises rests on subjective data. We use attitude data both to discover and to justify management practices. We have relatively little data on the actual behaviors of managers.5

Even such simple facts as the kinds of activities that managers engage in and the time distributions among them are not a matter of general knowledge in the literature.6

Why, then, is there still no accepted description of managerial work? Two theorists have offered suggestions. Chester Barnard argued:

[The executive process] is a matter of art rather than science, and is aesthetic rather than logical. For this reason it is recognized rather than described and is known by its effects rather than by analysis.6

and David Braybrooke suggested:

Three possibilities offer themselves: (a) an executive may be described as exercising a special faculty or talent, highly developed in some human beings, but hardly present at all in others; (b) his activities may be described as being of a particular kind


(whether or not there is any special faculty expressed in them); (c) he may be credited with a special kind of accomplishment (even if the other two possibilities fail). The trouble with all three ways is that as one investigates, one seems to discover that an executive can be said to be doing something clearly identifiable only when he is doing something that in a larger or more perfect organization would be done by a subordinate, or, in other words, it would seem that the more specialized the role of leadership becomes, the more difficult it is to say what a leader does.

For in a perfect organization, would not every specialized power be delegated to some specialized functionary? The man at the top would be left with nothing, or what seemed to approach nothing, to do.7

These two arguments -- that there can be no science to management and that there are no truly managerial functions -- are certainly disputable. They can be refuted by the kind of research undertaken here, which is designed to show, simply, that managers perform distinct functions that are subject to analysis. However, at this point the argument is made that no acceptable description of managerial work exists, not for the reasons stated by Barnard and Braybrooke, but because the research method used in previous studies have been inappropriate.

Except for the studies of the styles and strategies of individual men or of specific aspects of the job (e.g., leadership, decision-making), the reader is left with a preponderance of unsubstantiated works of "wisdom". The writers describe the manager's functions from a distance, either by expressing vague generalities -- managers set objectives and coordinate -- or by quoting managers who express the same generalities. Those who have conducted empirical research have tended to use indirect methods, such as recording by diary, and have been unable to determine inductively what managers do.

To demonstrate the points stated in the paragraph above, the literature of the manager has been sorted into six views that are presented in subsequent sections.

2.1 Classical View: POSDCORB

The word "classical" has been chosen to label the traditional view of managerial work in the literature. This view -- describing activity in terms of general, composite functions -- has dominated the literature of and for the manager to the present day.

The classical view of managerial functions as planning, organization, command, coordination, and control was first published by Henri Fayol in 1916. By the middle 1930's Luther Gulick had

---

developed the popular acronym POSDCORB to epitomize this view:

"What is the work of the chief executive? What does he do?"

The answer is POSDCORB.

POSDCORB is, of course, a made-up word designed to call attention to the various functional elements of the work of a chief executive because "administration" and "management" have lost all specific content. POSDCORB is made up of the initials and stands for the following activities:

Planning, that is working out in broad outline the things that need to be done and the methods for doing them to accomplish the purpose set for the enterprise;

Organizing, that is the establishment of the formal structure of authority through which work subdivisions are arranged, defined and co-ordinated for the defined objective;

Staffing, that is the whole personnel function of bringing in and training the staff and maintaining favorable conditions of work;

Directing, that is the continuous task of making decisions and embodying them in specific and general orders and instruction and serving as the leader of the enterprise;

Co-ordinating, that is the all important duty of interrelating the various parts of the work;

Reporting, that is keeping those to whom the executive is responsible informed as to what is going on, which thus includes keeping himself and his subordinates informed through records, research and inspection;
Budgeting, with all that goes with
budgeting in the form of fiscal
planning, accounting and control.

This statement of the work of a chief executive
is adapted from the functional analysis elaborated
by Henri Fayol in his "Industrial and General
Administration." It is believed that those who
know administration intimately will find in this
analysis a valid and helpful pattern, into which
can be fitted each of the major activities and
duties of any chief executive.9

While there has been no attempt to validate this final statement
of Gulick, his view of managerial work has remained the predominate
one, as evidenced by the following citations, drawn from diverse
sources:

-Writing in 1965, the Assistant Dean of a large
American business school stated: "The manager,
then, plans, organizes, motivates, directs, and
controls... That is the work of the manager."10

-In France, in 1961, writing for an academic
audience, Abbé Courtois discussed the managerial
functions in similar terms, with a few interest-
ing additions: training and educating, organizing,
directing, controlling, reprimanding, punishing,
neutralizing resistance, encouraging and rewarding,
delegating, creating a team.11

---

9Luther H. Gulick, "Notes on the Theory of Organizations" in
Gulick, et al., Papers on the Science of Administration (New York:

10Strong, op. cit., p. 5.

11Abbé G. Courtois, L'art d'être chef (Paris: Editions Fleurus,
1961).
Perhaps the most widely read student of management, Peter Drucker, has written:

There are...five basic operations in the work of the manager. Together they result in the integration of resources into a living and growing organism... A manager, in the first place, sets objectives... Secondly, a manager organizes... Next a manager motivates and communicates... The fourth basic element in the work of the manager is the job of measurement... Finally, a manager develops people.12

Managers, themselves, have adopted the same vocabulary:

-Fortune Magazine circulated a questionnaire among a large number of top managers, and was able to distill the following from their responses:

In the ninety-nine definitions of an executive turned up by Fortune's survey, there were described no fewer than 115 executive actions, but these fell roughly into ten categories, in the following order of frequency:

1. Achieving the company's over-all objectives.
2. Planning, and setting policies and objectives.
3. Making decisions, thinking, analyzing,
4. Coordinating functions and people,
5. Organizing and developing subordinates, advising other executives and managers,
6. Handling subordinates, controlling operations,
7. Improving own capacities, leading, setting an example.

8. Delegating, giving orders, working through others.
10. Dealing with the public.\textsuperscript{13}

—Ralph J. Cordiner, former Chairman of the Board of the General Electric Company, stated the particular duties of the chief executive were:

to generate...a 'vision of the business',...to organize all the resources of the company in order to make his program a profitable reality...to generate an entrepreneurial spirit throughout the organization...to take the leadership in manpower development...[to act as] the company's most important spokesman...[to take] the responsibility for personal leadership and example.\textsuperscript{14}

Thus, POSDCORB has gained wide acceptance, in America and abroad, by those writing for managers and those writing for academics, and by managers as well as students of management. However, POSDCORB has also proven to be an easy target for criticism. Among the well-known writers who have taken the opportunity to criticize has been Sune Carlson:

If we ask a managing director when he is coordinating, or how much coordination he does during a day he would not know, and even the most highly skilled observer would not know either. The same holds true of the concepts

\textsuperscript{13}Editors of Fortune, The Executive Life (Garden City, New Jersey: Doubleday, 1956), p. 21.

of planning, command, organization, and control, and also for most of the concepts used by Barnard\textsuperscript{15} in his analysis of executive functions.\textsuperscript{16}

Hodgson, Levinson, and Seiznick, in their study reported in \textit{The Executive Role Constellation}, refer to the managerial functions in the following way:

...the written formulations of the duties of the [executives'] positions -- their job descriptions -- did not enter into any of their talking or behaving. It seemed futile to seek to delineate the superintendency, for example, in terms such as, "to direct, to supervise, and to coordinate."\textsuperscript{17}

Rosemary Stewart has written:

...we know so little about what managers actually do, hence the generalizations are not the end result of research into how managers work. So far the gap between the general statement 'all managers plan, organize, motivate and control', and the detailed description of what they do, has only the flimsiest of trial bridges across it.\textsuperscript{18}

\textsuperscript{15}In \textit{The Functions of the Executive}, op. cit., Barnard defined the executive functions as, "first, to provide the system of communication; second, to promote the securing of essential efforts; and, third, to formulate and define purpose." (Page 217.)

\textsuperscript{16}Carlson, op. cit., p. 24.

\textsuperscript{17}Richard D. Hodgson, et al., \textit{The Executive Role Constellation: An Analysis of Personality and Role Relations in Management} (Boston: Harvard University Graduate School of Business Administration, 1965), p. 230.

And David Braybrooke has presented the most articulate argument:

"Making policy" and "coordinating" are perhaps equally distinctive descriptions, or even more distinctive of the executive's role than "making decisions," but they are just ways of indicating what we need to explain. "Coordinating," for example, is a technical term which has been introduced to cover a felt gap but which has not expelled the local mystery.\textsuperscript{19}

Thus, it is clear that POSDCORB fails because it is too vague, because it is not possible to relate this set of words to the set that would result from watching a manager at work. The classical words of POSDCORB delineate certain vague objectives of managerial work, rather than the work itself.

2.2 Anecdotal View: The Case Study

Although the management functions have not had any empirical investigation, there does exist a great number of writings on individual managers. Personal assistants and historians, among others, provide this information. The following, taken from a cursory survey of the current literature, is a sampling of case study views:

"A Business Week article, entitled "Pitchoy for NASA's trip to the moon," describes the personal style and current problems of James E. Webb, Administrator of NASA.\textsuperscript{20}

\textsuperscript{19} Braybrooke, op. cit., p. 537.

A Fortune article, entitled "The 4 Billion Dollar Business Garfield Weston Built", details the strategy of the Canadian who created an industrial empire.\(^{21}\)

A U.S. News & World Report interview with Bill D. Moyers, at that time "top aide to the President", gives insight into Lyndon B. Johnson's personality, eating habits, scheduling filters, advisers, choice procedures, health, and preoccupations.\(^{22}\)

An autobiography by Alfred P. Sloan tells of his basic strategy as he took control of General Motors and built it into the stable giant that it is today.\(^{23}\)

A book by William W. Kaufmann describes The McNamara Strategy and McNamara's methods for implementing drastic changes in the Department of Defense.\(^{24}\)

These works make fascinating reading, but unfortunately they provide little insight into the question posed in Chapter I. They seldom tell the reader what the managers actually do. Instead, they concentrate on the man's style and strategy, building their descriptions on anecdotes. Often they are devoid of generalization. The reader is occasionally told about the manager's working hours, his methods of obtaining information and making decisions, and, perhaps, some details

\(^{21}\) (June 1, 1967), pp. 116-121, 140, 142.

\(^{22}\) (June 13, 1966), pp. 78-85.

\(^{23}\) Alfred P. Sloan, My Years With General Motors (Garden City, New Jersey: Doubleday, 1963).

of one working day. But this data is generally too sketchy to be used in the construction of a general framework to understand managerial work.

2.3 Data View: The Background of the Manager

When one begins to look for data on the manager, one quickly finds that the data that have been collected focus primarily on the background of the men, rather than on their activities. These studies enforce the mystique that surrounds the manager, particularly the chief executive, by looking from a distance at parameters such as age, salary, educational background, and so on. In most of these studies, questionnaires were used; in some, personal interviews.

For example, Fortune reports in The Executive Life\textsuperscript{25} on a survey of 900 top executives. The reader learns about areas of birth, salaries, ages, years with the company and in the current position, first job in the company, age when hired, and so on.

It is an interesting commentary on the literature that data of this type are far more readily available than data on the work of managers. No doubt, part of the answer is that data of the first sort are more easily obtainable.

\textsuperscript{25}Editors of Fortune, op. cit.
2.4 Leadership View: Power and Personality

To many theorists, a manager "works through people." A large number of the scholarly writings have come from researchers with this point of view. Basically, they focus on the manager's interactions with those around him, filtering out the non-behavioral aspects of his activity, and focusing on power or personality.

The students of power, many of them political scientists, concentrate on the power relations between the leader and others, and focus on the leader's ability to manipulate people for his own or organizational ends. Prime examples are Richard Neustadt's study of three American Presidents, in which he analyzes the problems of influence -- getting decisions implemented;\textsuperscript{26} Max Weber's famous analysis of legal, traditional, and charismatic authority;\textsuperscript{27} and Melville Dalton's account of managerial intrigue and pressure in four firms.\textsuperscript{28}

It is perhaps in their own objectives that the students of personality most clearly differ from those who study power. As a group, these researchers have strong normative traditions, specifically, a


desire to improve the lot of the organization man. "Most of the literature on leadership styles...deals with the atmosphere created by a leader's actions and especially with the atmospheres generated by 'authoritarian' behavior as distinct from authoritative behavior."\(^{29}\)

These normative ends are achieved through analysis of the personalities and styles of leaders in their interpersonal relationships. Well-known examples are the works of Douglas McGregor\(^{30}\) and Rensis Likert.\(^{31}\)

These works shed little light on the actual activities of managers. Since the research is biased in the direction of interpersonal relations, much managerial activity is ignored, and the reader is left with an incomplete picture of the workings of the manager.

2.5 Strategy View: Managerial Decision-Making

To another large group of theorists, the term "manager" is synonymous with "decision-maker". This school focuses on the methods by which managerial decisions are determined. During this century, there have been three parallel developments in this area which have

---

\(^{29}\)Robert Dubin, \textit{op. cit.}, p. 47.


recently begun to merge. Described below, they are (1) economic
decision theory, (2) programmed decision theory, and (3) unprogrammed
decision theory.

1) Economic Decision Theory: The economists have tended to
emphasize the "rational" aspects of decision-making, describing both
the executive's role as entrepreneur in the organization, and an
idealized view of his decision-making procedure. In the entrepreneurial
role, the manager is characterized as risk-bearer and innovator:
"...the entrepreneur and his function are not difficult to conceptualize:
the defining characteristic is simply the doing of new things or the
doing of things that are already being done in a new way (innovation)",
said Schumpeter.\textsuperscript{32} The entrepreneurial function was always clearly
distinguished from the administrative function:

The typical industrial entrepreneur of the
nineteenth century was perhaps the man who put
into practice a novel method of production by
embodying it in a new firm and who then settled
down into a position of owner-manager of a
company, if he was successful, or of stockholding
president of a company, getting old and
conservative in the process.\textsuperscript{33}

\textsuperscript{32}Joseph A. Schumpeter, "The Creative Response in Economic
History", \textit{The Journal of Economic History} (VII:2, November, 1947),
p. 151.

\textsuperscript{33}\textit{Ibid.}, p. 33.
The economists never really delved into the operational meanings of the entrepreneurial function. They preferred instead to view this function in composite form, as a role that must somehow be carried out in any viable organization. Nevertheless, the concept of entrepreneurship is an important one, and will be used in this research.

To the economist, decision-making proceeds in an idealized and well-defined series of steps: goals (that is, a preference or utility function) are stated a priori and explicitly; alternative courses of action are then listed; the consequences of each alternative are determined; each consequence is considered in terms of the goals; alternatives are ranked in terms of goal achievement; the highest ranked alternative -- the maximum -- is chosen. In an industrial context, the economist usually considers the goal system to be profit maximization.

Again, little empirical research was undertaken to demonstrate that such a procedure did in fact occur in practice. Nevertheless, this procedure became the dominant one in the literature of management science.

Before leaving the discussion of the economists' views, one additional theory merits attention. Andreas Papandreou has argued that the manager, as the highest ranking level of authority, integrates

---

all the influences which are exerted upon the firm. As a result, the manager, or "peak coordinator" in Papandreou's terms, expresses the values or preferences which are used in the selection of an organizational strategy. The work of Papandreou provides a useful conceptualization, which is helpful in developing the theory of this research.

2) Programmed Decision Theory: Those who have studied the "programmed" (i.e., routine and delineative) decision have concentrated their efforts largely in the production area. Their work is an outgrowth of the work and urgings of Fredrick W. Taylor, 35 who, at the turn of the century, argued that the scientist could study the work of the laborer, understand his procedures, and then reprogram the work to further routinize it and thereby increase efficiency. Today, industrial engineers formed in Taylor's image abound, and their natural successors, operations researchers, who systematize the making of informational decisions, are firmly established as a management science group. They have chosen the economists' rational approach to decision-making as a procedural framework.

3) Unprogrammed Decision Theory: Theorists have only recently concentrated their efforts on the study of the "unprogrammed" (i.e., non-routine or ad hoc) decision, thought by many to be more typically characteristic of the general manager. Martin has argued from empirical research, for example, that the decisions of higher-level,

---

35 Fredrick W. Taylor, Scientific Management (New York: Harper and Brothers, 1911; first published 1911).
as opposed to lower-level, management are characterized by greater
uncertainty with respect to time horizon, availability of data, cause-
effect relationships, and so on.

It is up to the executive himself to determine
whether the situation warrants a change. He must
search for and construct possible alternative
courses of action; he must work out administrative
procedures to implement his decision. Such situ-
atations may be termed "unstructured". 36

One can easily trace the development of unprogrammed decision
theory. The initial impetus came from a practicing manager, Chester I.
Barnard. 37 Herbert A. Simon became interested in Barnard’s speculations,
and wrote Administrative Behavior, 38 in part, to develop an appropriate
vocabulary. With James G. March, he wrote Organizations, 39 to list a
large number of hypotheses related to managerial decision-making theory.
Finally, March collaborated with Richard M. Cyert to develop an
integrated model of organizational decision-making, in The Behavioral
Theory of the Firm. 40

36 Norman H. Martin, "The Levels of Management and their Mental
Demands", in Warner and Martin (Editors), Industrial Man: Businessmen

37 Barnard, op. cit.

38 Herbert A. Simon, Administrative Behavior (New York: Macmillan,
1947).

39 James G. March and Herbert A. Simon, Organizations (New York:

40 Richard M. Cyert and James G. March, A Behavioral Theory of the
In essence, these writers have attempted to view decision-making, not in the economists' terms of rational choice from known alternatives, but in terms which they feel more accurately depict actual managerial behavior. They argue that managers do not have explicit goal systems or preference functions; that the most important decision is the one to define a "problem"; that alternatives and their consequences are seldom known with clarity; and, finally, that choices are made to satisfy constraints, not to maximize objectives (i.e., managers "satisfice", not maximize).

Extending their framework, these writers depict the organization as a loosely coupled set of programs, arranged in hierarchical order so that higher-level programs construct and modify the lower-level programs which perform the work. Thus, to these theorists, executive work is that of programming — designing and modifying the programs to be used by the organization. To program, the executives use "satisficing" procedures.

This view of the organization as a set of programs is developed in a rather interesting way by Klahr and Leavitt who draw an analogy between organizational tasks and structures and computer programs. Describing complex computer programs as a set of closed routines that are tied together by an "executive program", these writers attempt to define executive work in terms of the functions of this executive program:
1. [Executive programs, or executives] look outside the program [organization], receiving information from the environment in one form and transmitting it back to the environment in another form. They observe what kinds of work has piled up, what needs to be done next, etc.

2. They look inside the program [organization] and they maintain control over its subprograms.

(a) They detect, checking what is done and what still needs to be done.
(b) They interpret. They command one subprogram to stop and another to start.
(c) They monitor, making sure that no errors or intolerable conditions have occurred or are imminent.
(d) They allocate resources, assigning computer time, space, and computational facilities [money, space, personnel, etc.] to the appropriate routines [departments], and they assign processes to problems.
(e) They coordinate. They make sure that when subparts of the activity are completed, the results are properly fed to the next part of the process. They schedule things in appropriate sequences and make sure the subparts are gradually put together into a meaningful entity.
(f) They do housekeeping. They inspect and clean up their own over-all working areas. They clean out unused areas and make them available for new information. The housekeeping routines initialize and finalize the loose ends that the subprograms may have neglected. They keep the total program [organization] in fighting trim.\textsuperscript{41}

\textsuperscript{41}David Klahr and Harold J. Leavitt, "Tasks, Organization Structures, and Computer Programs", in Myers, \textit{op. cit.}, pp. 114-115.
One basic weakness of much of the unprogrammed decision theory is that it emphasizes the single decision to the exclusion of the system of decisions that the manager faces over a period of time. The theory tells little about the interrelationships of decisions, and about the emergence of strategies (i.e., sets of organizational precedents or guides) from series of decisions.

One political scientist provides an interesting theory to fill this gap. Charles Lindblom presents "disjointed incrementalism" (more simply called "The Science of 'Muddling Through'" in his earlier article) as the appropriate strategy-making system for the manager.42 Arguing in the same manner as Simon, et al., Lindblom creates a straw man — the economist's rational or "synoptic" approach. In Lindblom's opinion, this approach fails because it does not recognize man's inability to cope with complex problems, the usual lack of information, the cost of analysis, the problems of timing, and the difficulties of stating realistic goals. Lindblom's manager acts in remedial fashion, moving away from illis rather than toward goals. Only marginal alternatives — those which will not result in unanticipated change — are considered for implementation, and few consequences are investigated. Goals are flexible, being revised continually to adjust to the means

available. Most significantly, the manager acts in serial, or stepwise fashion, making a small change, interpreting the feedback, making another change, and so on.

Lindblom's views, although not substantiated by empirical investigation, are very thought-provoking. With the great activity on the part of synoptic analysts (e.g., operations researchers, strategic planners), these views deserve further attention. Specifically, the view of the manager "muddling through" must be married to the view of the manager as entrepreneur, so that a realistic picture of strategy-making as a combination of problem-solving and innovating activity can be developed.

From the managerial decision theorists, particularly those who have studied the unprogrammed decision, this research borrows a vocabulary and a set of concepts. However, it must be noted that each of these three schools of decision-making (economic, programmed, unprogrammed), while presenting interesting theories of certain aspects of managerial work, does not describe the work of the manager. Viewing the manager as decision-maker is, in one sense, much like viewing him as a leader -- too biased to give much insight into the nature of his working habits.

2.6 Empirical View: Managerial Time Allocation

From time to time, empirical studies of managerial activities have been undertaken, but with one exception, they have not generated wide interest.
The exception is the study of nine Swedish managing directors, published in 1951. Its author, Sune Carlson, used a methodology which was to become the popular one in subsequent studies. He asked the managers to fill out time "diaries" describing each activity. Into the diaries went data on (1) place of work, (2) contact with people and institutions, (3) technique of communication, (4) nature of question handled (function, current or development, policy or application), and (5) kind of action (getting information, systematizing information, taking decisions, confirming or correcting the decisions of others, giving orders, advising and explaining, executing, personal development).  

Interspersed with a number of charts dealing in detail primarily with communication patterns (contact, frequency of interaction, length of interaction), were various unrelated comments on executive work, a sampling of which follows:

- Executives have an excessively heavy work load.
- Executive work is characterized by very frequent interruption by telephone calls and visitors.
- The number of letters initiated (2–3 per day) is much lower than the number received.
- Internal communication is usually direct and in the executive's office; he receives more information inside; much of the information that he generates is for sources outside the organization.

---

43 Sune Carlson, op. cit.

44 The recording form that Carlson used is reproduced in Section 3.1.
Median time spent with visitors is three and one-half hours per day.

To some extent, the layout of offices determines whom the executive sees and how often.

Production questions are more common than organization and planning questions; sales questions are usually defined as policy while financial questions are usually defined as application.

"Getting information" is the most common kind of action.

The executive has very little control over the design of his working day.

Carlson's emphasis was on the manager's "relationship with people" but he was also concerned with the shape of the working day as described by the allocation of time to meetings, telephone calls, etc.

Carlson also attempted to collect data on the kinds of actions in which executives engage. Unfortunately, this category, the only one which describes the actual content of the work, drew little comment from Carlson. He offered only one finding:

The main problem for the chief executive in dealing with questions brought up is to keep himself informed. Of the various headings on the questionnaire, "getting informed" was used at least twice as often as any of the others.\textsuperscript{45}

Thus it may be concluded that the most well-known empirical study of the manager tells of the time spent in meetings, of contacts, of the flow of mail, but not of the actual content of activities. In

\textsuperscript{45}Ibid., p. 108.
other words, we know who the man was with, where they located themselves, and how long they talked, but not why they were there or what they talked about. Carlson's was a study of managerial media, not of managerial activity.

Carlson's study was repeated by other researchers, a surprisingly large number of whom were British. In each case, the conclusion was the same. Much useful data was generated on working hours, contacts, flow of mail, and so on, but little could be concluded about the content and purpose of activities. In the next chapter, this failure is attributed to the methodology used — the diary.

In brief form below, three of the studies that used the diary method are listed with their major conclusions:

1) Tom Burns asked four departmental executives to estimate the allocation of their time, and then he used the diary method of recording for a five week period. He concluded:

---

46 His method was also adopted by the head of a prominent French concern to study and redefine management work habits. This man argued that there was no reason for his managers to resist such a project when the factory worker's every motion was being studied by industrial engineers. See Rolf Nordling, "Work Simplification at the Level of the General Manager of a Company" (translated by the Management Consulting Services of General Electric from Revue Mensuelle de l'Organisation, June, 1954).

They tend to underestimate the time they spend on personnel matters, overestimate time spent on production.

Eighty percent of their time is spent in conversation.

Twenty-five to forty percent of their time is spent interacting with the executive group; there was a tendency to work inside the offices.

"'Lateral' communication assumes rather larger proportions than is commonly supposed."

A greater proportion of downward interaction is self-initiated.

Although Burns tried to collect data on the content of activities, he presented no conclusions in this area; he did, however, discuss at length the discrepancies between accounts by people attending the same meeting.

2) Dubin and Spray asked eight men to record their activities for two week periods. They concluded:

There is no unique functional pattern of work, although lower-level executives are more likely to concentrate on a single activity (e.g., accounting).

The level of activity is constant throughout the day.

---

48 Ibid., p. 88.

- Face-to-face discussion is the dominant mode of interaction, and "working alone" ranks second.

- Executives spend much time with peers.

- Contacts were initiated more often by the executives themselves.

3) Horne and Lupton\(^50\) studied sixty middle managers for one week using diaries and "communications records" kept by secretaries and assistants. In this study, an attempt was made to have the managers classify activities into one of "FOUR" functions — formulating, organizing, unifying, and regulating. The authors argued that the managers spent the "great bulk" of their time on the non-formulating activities. However, the tables seemed to indicate wide discrepancies between companies, and the only possible conclusion that could be drawn was that managers list "regulating" somewhat more frequently and "organizing" somewhat less frequently. Considering these results with the earlier comments concerning the vagueness of these words,\(^51\) it must be concluded that the managers were unable to relate the FOUR to their actual activities. Some of the authors' conclusions were:

- Managers spend little time in solitary reflection, and about one-fifth of their time reading.

- Choosing between "information", "advice", "decisions", "instructions", "plans", and "explanations", managers spend the greatest share of their time dealing with "information".


\(^51\) See Section 2.1 on POSDCORB.
Forty-five to sixty percent of their time is spent in their own offices.

Little homework is done.

Managers at higher levels spend more time at external locations.

Managers are not overworked.

While the diary technique has been the most popular, empirical researchers have used a number of other approaches, including interviewing, work sampling, and observation:

**Interviewing**

Jerdee and Mahoney\(^{52}\) asked 241 managers, ranging in position from first line supervisor to president, to divide their workload between planning (20%),\(^{53}\) investigating (11%), coordinating (15%), evaluating (12%), supervising (25%), staffing (5%), negotiating (10%), and representing (2%). The authors concluded that there is no one typical manager, but six. Depending on how a manager weighs his time allocation, he may be a supervisor, planner, supervisor/evaluator, planner/evaluator, investigator/negotiator, or negotiator/representative. The worth of this study is open to question on two previously discussed counts -- the words used are not very meaningful, and managers are

---

\(^{52}\) Factory, "New Way to Look at the Manager's Jobs" (December, 1957), pp. 110-112.

\(^{53}\) Percentages in parentheses refer to average estimated time spent on the activity.
poor estimators of their own time allocation. This has been
demonstrated in the Burns' studies, and will be discussed in more
detail in the next chapter.

George Copeman<sup>54</sup> drew together a large number of interviews — about 300 preliminary and 30 concentrated — into a very interesting book on the manager. Basically, Copeman made great use of the anecdote, following short paragraphs of theory with anecdotes, which by far comprise the bulk of the book. Among other things, he discussed: settling into the job, authority, choosing the organization structure, checking operations and results, coordination and arbitration, relations with outside directors. This book reinforces the hypothesis that managers are far more able to discuss specific anecdotes than abstract classifications. There is no discussion of managerial time allocation related to activities.

Work Sampling

Joe Kelly<sup>55</sup> used activity sampling (or work sampling) to study four section managers. With 2800 observations at random times over a three week period, he concluded, for example, that two-thirds of their


time was spent in contact with others, and of this one-third was with peers. One-half of their total time was spent on programming; one-quarter on technical work; one-tenth on personnel.

While this methodology is effective in furnishing data on time allocation, it does not enable the researcher to uncover the purpose of activities. In effect, he is photographing the action, and is, therefore, able to perceive only visual factors such as location and medium. He is unable to trace an activity to its cause.

**Observation**

A book by Walker, Guest, and Turner\(^56\) described a study involving (a) the interviewing of fifty-five foremen in one plant, with the emphasis on their problems, and (b) the minute-by-minute observation of one day in the life of a foreman. He was observed in 387 "separate observable incidents", 227 in interactions with other people and 114 with his own men. Among other things, the authors noted that in certain emergency situations, he was forced to leave his supervisory duties to perform the work himself.

In his recent book, *Managerial Behavior*, Leonard Sayles\(^57\) discussed the results of several years spent among lower- and middle-level managers in a large American corporation. Sayles makes infrequent


reference to the field work and presents no hard (i.e., quantitative) data. The book is, however, useful for its typologies and its theory. Defining the administrator's primary purpose as "to maintain the regularity or the sequential pattern of one or more of the work processes underlying the division of labor", 58 Sayles proceeds to discuss him as a participant in external work flows, with seven operating relationships: work flow, trading, service, advisory, auditing, stabilization, and innovation. The manager operates on a contingency basis; he monitors his environment informally, looking for problems and instituting short-term corrections to bring back stability; when these problems recur, the administrator introduces long-term or structural changes. Leadership involves (1) getting subordinates to respond to the leader's actions, (2) the leader's responses to subordinate requests for aid or support, and (3) representing and intervening for subordinates. Throughout the book, the point is stressed that managerial work is not neatly defined, and that the classical principles of management (e.g., chain of command, compartmentalized responsibility, line/staff dichotomy) are erroneous. Rather, managerial work is characterized by informality, adaptability, bargaining and system balance.

58 Ibid., p. 49.
Finally, a recent study by John Radomsky\textsuperscript{59} deserves mention, in part because of its unique methodology. Radomsky wished to understand how managers choose their next activity, in his terms, "the problem of choosing a problem". Using a sample of three executives at the middle and upper levels of a large manufacturing firm, he recorded on videotape all their activities at their desks for a single day. While they worked, they produced protocols -- verbal statements of their thoughts at the moment of taping. One day later, Radomsky interviewed each man while playing back the tapes. He discovered that this aided substantially in the man's recollections, for each subject was able to recall very detailed thoughts about each event.

Basically, Radomsky described how the manager chooses the next task to execute, and in terms of the following steps:

- determining the inventory of tasks
- deciding to dispatch those which apply to others
- sequencing the remaining tasks
- executing the first task after setting interruption rules.

Tasks are sequenced according to slack time and the degree to which they satisfy organizational and personal values, with the exception that short operation tasks are used to start the day and to fill in time gaps. Tasks which expedite the functioning of the organization

and those already identified are assigned higher values, new tasks and self-development tasks receive lower values. The process is depicted as "dynamic, intendedly rational, satisficing and heuristic."\(^\text{60}\)

While the sum total of all these empirical studies provides some insight into the nature of managerial work, in no case is the reader given a comprehensive description of what managers actually do. Carlson and those who used his diary method really skirted the issue, being more concerned with media than with actual task structure. The studies by Sayles and Radomsky are useful for purposes of this research, but not because they provided comprehensive descriptions. Sayles was largely concerned with interactions, and provided an interesting framework within which to view problem-solving behavior. Radomsky described in very complete terms only one (albeit an important one) of the many managerial activities -- scheduling his own time.

2.7 Missing View: Managerial Activity

In summary, the following views of the manager in the literature have been discussed:

Classical View:

Theorists and managers themselves use terms such as "planning", "organizing", and "coordinating" to describe the management "functions", but these describe the very general objectives of the work rather than the work itself.

\(^\text{60}\)Ibid., p. 4.
Anecdotal View:

Biographers and others describe the style and strategy of the individual manager; usually, no attempt is made to describe the work itself.

Data View:

Data gatherers provide information on managers' backgrounds — their careers, ages, salaries, and so on.

Leadership View:

Scholars analyze power and personality, focusing solely on interpersonal relations.

Strategy View:

Economists and operations researchers view the manager as a rational, innovative decision-maker; unprogrammed-decision theorists replace this view with one of the manager as programmer and satisficer, but emphasize the individual decision to the exclusion of the stream of decisions.

Empirical View:

Researchers investigate managerial media (e.g., meetings, contacts, locations) and time allocation, without drawing conclusions about the actual content and purpose of activities.

Thus, the reader of the literature can learn much about the manager, but not what he does. He will find a tendency to glorify managerial work; to discuss it in terms of vague generalities, devoid of substantiation; to discuss in empirical terms managerial backgrounds and managerial media, but not managerial activities. He will find that to some theorists a manager is a motivator of people, to others a
decision-maker. But viewing the manager in any one of these contexts is much like viewing the elephant as a device to grow ivory or to move teak logs. An elephant is both of these things, and it is a large, gray mammal as well.

The need for research has now been demonstrated. The actual activities performed by managers must be carefully studied as to their content and purpose. Then the management work functions must be redefined so that they relate realistically to the actual activities that managers perform. Only then will the mysteries of managerial work be dispelled. The accomplishment of this aim necessitates the development of a unique research methodology, and this is the subject of Chapter III.
CHAPTER III

A METHOD TO STUDY MANAGERIAL WORK

It was six men of Indostan
To learning much inclined,
Who went to see the Elephant
(Though all of them were blind),
That each by observation
Might satisfy his mind

John Godfrey Saxe¹

This chapter deals with the work of the researcher, taking as the point of departure the conclusion of the previous chapter -- that there is a need to redefine the managerial "functions" by focusing research on the actual content and purpose of managerial activity. First, four premises which underlie the choice of a research methodology are stated; then, the methodology is described, and the process of collecting, reducing, and analyzing the data is detailed (a typical day is described and coded to facilitate understanding); finally, the choice of research subjects, the success of the field work, and the "Hawthorne effects" are discussed.

¹The Blind Men and the Elephant, Stanza I.
3.1 Four Research Premises

The following four premises underlie the choice of research methodology:

A. One basic set of work activities are common to all managers; only the proportion among them and the style used while engaging in them may vary.

The manager is defined simply as that person in charge of a formal organization. If the organization is one that is concerned with operating production machines within the context of a larger organization, the manager is called a "foreman". If the work of his organization is relatively unspecialized, he may be called a "general manager". The term "executive" usually refers to a high-ranking manager in an organization that has many managers, and the "chief executive" is the man who heads a relatively autonomous organization. This research is designed to study the work inherent in the running of formal organizations, and it matters little whether the organizations are government departments, conglomerate companies, or machine shops contained in conglomerate companies.

The term "activity" cannot be defined easily. An industrial engineer calls the physical act of grabbing a machine tool an activity; others may see the execution of NASA's Apollo Program as an activity. In this research, the term "activity" will be used to refer to a managerial event with a particular stimulus and particular participants, such as a meeting, a telephone call, a plant tour, or the receipt of a piece of mail.
The first premise states that all managers engage in the same basic set of activities. It is further implied that the set is finite and determinable, that we can realistically categorize all managerial work into one set of activities and then show that all managers do these things. For example, all managers engage in ceremonial and information gathering activities, among other things.  

However, the premise further states that managers differ in two ways. First, they engage in these activities to different degrees. That is, the mix of activities varies, and it likely depends largely on the type of organization being managed. For example, one would expect the president of a university to engage in more purely ceremonial work than does a factory foreman. Second, managerial style -- "predictable ways of coping with the reality of the work environment" -- differs. Depending on the personality of the particular manager, he will approach an activity in a particular way. Thus, for example, all managers must resolve personnel conflicts in their organizations, but their methods of reaching solutions will vary widely.

---

2 It is difficult to support this premise without drawing on the theory developed in later chapters. In other words, to accept the notion that all managers engage in the same set of activities, the reader will want to know what that complete set is. But the definition of that set is one of the objects of this research. Thus, I return to this premise, to offer support for what at this stage might be accepted intuitively as plausible at the end of Chapter VI.

In effect, the first premise draws the distinction between the man and his office, by suggesting that the office --- the effects of formal authority --- define the activities in which the man must engage.

Thus, this research is unconcerned with managerial style, and only marginally concerned with the mix of activities. The emphasis is on defining the kinds of activities in which managers engage, and the reasons for their involvement.

It follows from the first premise that any activity which can be found to be common to all managers must be defined as a managerial activity. And a thorough attempt must be made to relate any work that a manager is found doing to his position as manager before that work can be dismissed as non-managerial. This view is in direct conflict with one stated by Peter Drucker, and found frequently in the literature:

Every manager does many things that are not managing. He may spend most of his time on them. A sales manager makes a statistical analysis or placates an important customer. A foreman repairs a tool or fills in a production report. A manufacturing manager designs a new plant layout or tests new materials. A company president works through the details of a bank loan or negotiates a big contract --- or spends dreary hours presiding at a dinner in honor of long-service employees. All these things pertain to a particular function. All are necessary, and have to be done well.

But they are apart from that work which every manager does whatever his function or activity, whatever his rank and position, work which is common to all managers and peculiar to them.  

4Drucker, op. cit., p. 343.
This attitude reflects the long-standing attempts to glamorize the work of the manager, and reflects the traditional biases. Drucker was attempting to find managerial activities which fit into the POSDCORB framework, and he was forced to reject many that did not. No arbitrary omissions will be made in this research for encountered work activity.

B. To achieve the research objectives, it will be necessary to use an inductive approach.

In the previous chapter, it was argued that the descriptions of managerial work in the literature are generally vague and unrelated to the actual activity performed. In fact, this suggests that these writers did not use inductive reasoning. Instead, they preferred to state the functions of the manager in the abstract, and then, perhaps, they attempted to go back and categorize observable activity as 'planning,' 'coordinating,' etc.

But what can be expected from such a procedure? It is a truism that the total job of the manager is no more and no less than the sum of all the individual activities. Since we know nothing of these individual activities, what can we know about the composite? Thus, the research methodology must provide the opportunity to start at the beginning, to generate hard data on the particular activities of particular managers so that theory can be constructed on empirical foundations.
Thus, it is necessary to use an inductive approach. Deduction is only possible once a phenomenon has been categorized and understood. Other researchers who have attempted to study managerial work empirically have reached the same conclusion:

We have hewed close to an inductive procedure. Given our desire to describe executive action accurately, we sought to let the descriptive materials speak loudly to the theory. We think this is fundamentally necessary if organization theory is to be grounded in the study of organizational behavior.⁵

C. **To collect the necessary data, the method of "structured observation" must be used.**

A number of methodologies were considered, but it was felt, at a very early stage, that each of them was inappropriate for inductive research. The methodologies that were considered are discussed below:

1. **Interview and Questionnaire:** To ask the manager what he does is to make him the researcher. There is the danger that the description will be expressed in normative rather than in descriptive terms. In the previous chapter, it was demonstrated that managers tend to use the words of POSDCORB when generalizing about their work. It is indeed strange to imply that managers should be unable to provide generalized insight into their own activities, but this implication is reinforced by the words of Douglas McGregor:

⁵Dubin and Spray, *op. cit.*, p. 108.
The manager's verbal statements about his style are after-the-fact generalizations that involve considerable rationalization. Often what he says about his style appears to others to be inconsistent with his day-to-day behavior.\(^6\)

Furthermore, there are the research findings of Burns,\(^7\) who asked managers to guess at their time allocations and then asked them to keep diaries. He noticed specific discrepancies.

Thus, interviews and questionnaires could only be considered as research aids.

2. **Diaries:** The most popular method to date has been recording by diary — an activity-by-activity tabulation of a number of parameters recorded by the manager. To ease the time pressures on the participants, the researchers have used precoded pads, listing the set of words from which the managers were to choose. Figure 1 shows the form used by Sune Carlson in his study.

In an article entitled "The Use of Diaries to Study Managers' Jobs", Rosemary Stewart explained that diaries were chosen instead of observation because they made it possible to study many managers for extended time periods, with recording done "by the man who knows what


\(^7\) See Section 2.6.
FIGURE 1: Diary Recording Form Designed by Carlson for Use by the Managers

Date: 3/4 49  
Time: 10:45-11:05

Place (other than own office):

Person:

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Works man.B</td>
<td>Sales dir. Swed.</td>
<td>Assistant</td>
</tr>
<tr>
<td>Organ. dir.</td>
<td>Sales dir. exp.</td>
<td>Secr.</td>
</tr>
</tbody>
</table>

### A. Question handled

<table>
<thead>
<tr>
<th>Finance, legal</th>
<th>Accounting</th>
<th>Kind of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Getting information</td>
<td>Systematizing information</td>
<td></td>
</tr>
<tr>
<td>Taking decisions</td>
<td>Confirming or correcting decisions of others</td>
<td></td>
</tr>
<tr>
<td>Giving orders</td>
<td>Advising, explaining</td>
<td></td>
</tr>
<tr>
<td>Executing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### B. Question handled

<table>
<thead>
<tr>
<th>Development</th>
<th>Current operations</th>
<th>C. Question handled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy</td>
<td>Application</td>
<td></td>
</tr>
<tr>
<td>Personal development</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Carlson, op. cit., p. 46)
he is doing. However, she made the choice recognizing the diary's disadvantages:

(a) There are great limitations on what can be studied if one is aiming at comparability. The limitations are not quite as great if one is studying a homogeneous group of managers.

(b) It is probably impossible to get a random sample, especially in different companies, as one is relying on volunteers or members of courses. (This is probably also true, though perhaps to a lesser extent, of observation.)

(c) However great the care and however restricted the objectives, there will still be some unreliability in recording. This will mean the exclusion of some diaries and will probably invalidate conclusions based on small percentage differences.

Other users of diaries have discussed what Rosemary Stewart called "unreliability in recording" in stronger terms. Tom Burns and Horne and Lupton have commented:

First, and most important, the records are in no way objective; they are statements made by individuals about what they thought -- or thought I ought to know -- they were doing. Secondly, the records vary greatly in precision and accuracy.

---


9Ibid., p. 235.

It will have become clear that we are not working with objective data gathered by direct observation of the activities of managers minute by minute. The data are rather a description of the manager's activities as he himself sees them, using the limited vocabulary provided by the recording device but checked against the observation of others. Data like these are commonly found in similar studies. They have obvious shortcomings. A method which gives complete, objective, and accurate data and which is economical of research resources has yet to be designed. ¹¹

Two further criticisms, which become apparent during the research are that (1) the neat categories required for diary recording are not characteristic of managerial work, and (2) the manager is far too busy to record properly. During my research, one meeting of two people lasting eighteen minutes covered fifteen distinct topics; often the manager had a number of chance and very brief contacts in the hall; in a number of cases, managers went through more than thirty items of mail in periods of one hour or less; once, the following sequence of events occurred: a one-minute unscheduled meeting, a one-minute telephone call, five minutes of desk work, a two-minute call. Imagine one of these managers faced with Carlson's pad! Managing is a complex, full time job, and, as I was to learn, so is recording.

Inconsistency, difficulty of recording complex data, lack of objectivity, and the problems with brief contacts and the mail flow, are serious weaknesses of the diary method, but they are not the most

serious ones. Rather, the diary method was rejected because it would have made it impossible to use inductive procedures to draw the required conclusions.

The point has been made that the literature does not tell the reader what managers actually do. But in order to design the recording form, one must develop unambiguous categories, few in number, to be checked off by the manager.

The use of a simplified diary schedule of this kind means that the amount of information contained in each is extremely limited; it amounts to a description of one's behaviour in a language of less than fifty verbs and nouns... 12

Thus, the researcher must first know what managers do before he can design the form. Then, all he will learn is the distribution of the activities he already believes the manager is performing. My objective was to find the words that should go on the form, so, obviously, I could not use the form. Hodgson, et al., drew the same conclusion:

To construct questionnaires, we had to know the salient dimensions of the situations we were studying. It took us about a year of field work to find them out, and by that time we were already obtaining so much data that questionnaires would have been of no incremental value... 13

---

12 Burns, 1957, op. cit., p. 46.

13 Hodgson, et al., op. cit., p. 481.
It is for the preceding reasons that those who used the diary method were unable to draw meaningful conclusions about the content and purpose of managerial activities, and why Rosemary Stewart was forced to conclude:

The most important conclusion that I reached was that it is impossible to design a diary of kinds of action... This conclusion imposes a very important limitation on the possible scope of analyzing managers' jobs by means of diaries, since it means that if one wants comparable results -- and that surely must be the aim -- one is severely restricted in analyzing what the manager does, as distinct from where, how, or with whom he does it. [Underlining mine.]\(^{14}\)

3. Observation: The proposed field work is such that much depends on the researcher's ability to probe into and interpret the manager's activities. In this regard, much can be learned from the methodology developed and used by the students of unprogrammed decision-making, such as Geoffrey P. E. Clarkson.\(^{15}\) They focus on observable process, and the researcher studies activities by means of the subjects' verbalizations. In this way, the researcher can discern the nature of the activity and the information that the man uses.


One productive approach to observational research, used, for example, by William F. Whyte$^{16}$ and Melville Dalton$^{17}$ in their widely known studies, is, what will be called, "unstructured" observation. In effect, the researcher lives in an organization, either as a participant or as an objective observer. This is how Sayles described his study:

The field work was conducted by techniques of anthropological studies: the researcher endeavors by living within the culture for extended periods of time to comprehend significant relationships and attitudes — even those which may depart from his predispositions and expectations.$^{18}$

While there is every reason to take advantage of the flexibility of this approach, it is necessary, for the reasons outlined below by Carlson, to structure the observation:

"...before we go out in the field in order to make our observations we must know what to look for and how to describe and measure the things we observe... Without such a conceptual framework, there would be no way of selecting among the infinite number of factual observations which can be made about any concrete phenomena. ...in reporting our fact finding, we must state the operations by which our data are arrived at."$^{19}$

---

$^{16}$This study is discussed in George C. Homans, *The Human Group* (New York: Harcourt, Brace, 1950).

$^{17}$Men Who Manage (New York: Wiley, 1959).

$^{18}$Sayles, op. cit., p. vii.

$^{19}$Carlson, op. cit., p. 19.
Thus, I found it necessary to walk a tightrope between using structure and excluding it. Too little structure would result in an inability to record much of the important data and tabulate the findings and reproduce the research. Too much structure would lead to the problems of diaries -- an inability to develop an understanding of the things we know nothing about.

"Structured observation" came to mean that data would be collected and reduced in two forms. For each activity, there would be the categorization of a number of features (e.g., place, purpose of activity), as in the diary method, but with one important distinction -- the categories would be developed as the observation took place. Second, there would be the recording, without any particular structural framework, of detailed notes on any anecdote that was of interest. Theory would then be developed from these categorizations and anecdotes.

During observation, the researcher functions as a kind of "black box". He observes events taking place and somehow translates them into abstract categories and theories. Understanding his coding and theorizing procedures is a job for another researcher. All that can be said here is that he is bound to be influenced somewhat by his own biases. As Churchman has pointed out, the researcher may be objective in his use of data, but he invariably builds his own biases into the system which generates the data.¹⁰ I was interested in drawing

conclusions about communication and strategy-making, as opposed, for instance, to interpersonal behavior, so it was natural for me to see more of, and therefore code more of, this type of action.

It should be noted, however, that the biases in observational research, as opposed to diary research, are, at least, consistent. In other words, the activities of each man studied were recorded in one manner by the same researcher.

Before leaving this discussion, some disadvantages of the observational method as discussed by Rosemary Stewart should be noted:

1) difficulties of understanding action: "It is hard for an observer to follow all that is being done, without interrupting the manager, even if he is familiar with the job he is observing. The difficulties become much greater when observing an unfamiliar, and especially a highly technical, job."\(^{21}\)

2) confidentiality: "...an observer may be excluded from confidential discussions."\(^{22}\)

3) comprehensiveness: The sample size is severely constrained.

The circumvention of the first two difficulties is discussed later in this chapter. The third problem could not, of course, be overcome. It should be noted, however, that this research was designed primarily


\(^{22}\) Ibid., p. 235.
to define the management functions, not to compare managerial jobs or
to find the proportion of different activities. Discussion of the
third advantage is continued below.

D. In any pragmatic sense, it is not possible to choose a
representative sample of managers to study.

It cannot be argued realistically that research on the management
activities must deal with a representative sample of managers. Such a
sample will simply be too large. It is not difficult to demonstrate
that there are many thousands of kinds of managers. Managers may come
from public or private organizations, manufacturing or service organiza-
tions, organizations of varying size and of varying rates of growth.
They may fill positions at the level of chief executive, upper or
middle management, first-line supervisor. The manager himself may have
varying years of experience in his job; he may have been educated at a
business school, an engineering school, or he may not have attended
university; he may be experienced in few or many managerial positions;
he may or may not be an owner in addition to being a manager.

No study could claim to include all types from the managerial
population. It became clear that any general research on the manager
would have to be exploratory in the sense that conclusions would have
to be based on the study of only a few types of managers. However,
given that all managers engage in the same basic set of activities
(the first premise), the theory could then be extended to all types
of managers.
Thus, it was clear that time would be spent more productively in probing deeply into the activities of a relatively few managers, and careful control of most of the variables defining a managerial type was not considered to be a worthwhile exercise.

Initially, I felt that one manager should be studied for a one-month period, and a second manager for a one-week period to verify the conclusions. However, at the suggestion of my advisors, five men were studied for one week periods. This proved to be both a more feasible and a more rewarding approach. One week was enough of an imposition on any manager, and five weeks could be spent more productively in studying five men than in studying two.

Although any mix of managers could have been studied, it was decided to limit the research to chief executives because:

- It would be easier to understand the work of a man who relates his organization to the outside society than it would be to understand the work of one who relates his organization to others within a larger organization.

- There would be no problems in explaining my presence to peers and superiors.

- In terms of drawing conclusions, there is considerable interest in the role of computers and planners at the chief executive level.

- Any published information concerning the organization would provide direct insight into the chief executive's job.

- The more significant the position, the more interesting it is to the researcher and the reader.
3.2 Collecting and Coding the Data

The steps leading up to the finalization of the data collection routine were as follows:

1) First, I developed some preliminary thoughts on the subject, and I supplemented them with brief literature search.

2) There followed a three-day period of unstructured observation of the president of a small manufacturing firm, at which time the choice of variables to be studied was made; this was followed by interviews with two executives about one month of their scheduled activity.

3) The next stage was the development of the thesis proposal and planning for the field work, at which time the data collection forms were designed.

4) Finally, during the first week of observation, the forms were redesigned. (No matter how much "homework" one has done, only under conditions of actual observation could one properly design the forms.)

A conscious attempt was made to avoid preconceived categorizations for data. Rather, the category that seemed appropriate for one particular activity was noted at the time of observation. To cite a simple example, I wanted to categorize the means by which contacts were initiated, but only by observing activities could I decide that it would be appropriate to categorize initiation as "self" (i.e., the manager), "opposite" (i.e., the contact), "mutual", or "clock" (i.e., regularly scheduled). Thus, as the work progressed, patterns formed, and a categorization scheme emerged by induction. Certain categories
were quickly established (e.g., initiation of activity as described above), while the more important categories — "purpose" of activity, for example — were not finalized until well into the field work.

Three types of data were collected — preliminary data, structured data, and anecdotal data.

**Preliminary Data**

Once a man had agreed to participate in the research, the following data were collected before the actual observation began:

**One month of scheduled appointments**: From the calendar pad, usually with the help of the manager’s secretary, I collected information on all scheduled meetings (place, duration, participants) that took place during one month. I used this information to ensure that the work week under study was not atypical.

**Information about the organization**: Information collected included the organizational chart, reprints of appropriate articles, speeches by the manager, annual reports, books about the organization. This information was used to develop an understanding of the environment of the manager, to give insight into some of the strategy questions that might arise during observation, and to become familiar with the names of members of management who might interact with the manager during observation.

**Information about the manager**: I collected information on his background, personality, approximate working hours, work-related activity at home, managerial style, and so on. To get this information, I obtained a copy of his personal résumé and other published information, and I interviewed him, his secretary and/or his personal assistant. I used this information to familiarize myself with the man and to prepare for the actual week of observation.
Structured Data

To give the reader a better understanding of the kind of data and the process of coding, a typical morning of managerial work, based on encountered experiences, is described in detail:

As Mr. M. enters his office at 8:20 A.M. and greets Janice, his secretary, the telephone rings. It is the manager of the local manufacturing operation and the call is put through. "We had a fire in the plant last night," Mr. M. is told, "and the damage amounted to $30,000; we should be back in operation by next Wednesday."

As he hangs up, Janice enters and reminds him of the 11 A.M. appointment and of his intention to call the company lawyer. "Joe dropped by and would like to see you, and, oh yes, that flight to Paris is booked, so I put you on the 4 P.M. leaving on the fifth. Here's the mail. Nothing much except for that letter from Antwerp." The seven pieces of mail are processed immediately:

-The invitation to speak to the trade organization is declined with a note to Janice to reply that Mr. M. will be abroad.

-The advertisement for a magazine on mergers and acquisitions, clipped from a newspaper by a salesman, is thrown away.

-The notice tells Mr. M. the date of the educational foundation board meeting which is noted in the calendar pad.

-*Business Week* is skimmed, and an advertisement for certain production equipment is clipped.

-The head of the organization's Antwerp office has written to complain that the Treasurer will not release funds for his tenth anniversary celebration. Mr. M. calls to Janice to ask the Treasurer to drop by today.

-The internal financial statement for the month is glanced at and put in the "out" basket for filing.
Without reading it, Mr. M signs a document received from his head of Research and Development. It is a request for funds under a federally supported program, and Mr. M must sign it before it goes to Washington.

The time is 8:40 and Mr. M's assistant looks in: "It looks like there will be trouble at the meeting -- they think Mike was forced out, and they are prepared to make a stink about it." They proceed to discuss the situation.

At five minutes before nine, Mr. M calls the Chairman of the Board. "There'll be trouble at the meeting, George," and Mr. M goes on to repeat the information he has just received.

The conversation ends precisely at nine, and a Mr. Jamison is ushered in with a member of the Personnel Department. Mr. Jamison is introduced to Mr. M who asks: "Well, what will you do when you leave us?" After some discussion about Mr. Jamison's camp in New Hampshire, he is presented with a plaque commemorating thirty years of service to the organization.

At 9:30 the Treasurer, who has been waiting at the door, enters. "John, look at this," says Mr. M as he hands him the Antwerp letter. "What's the story?" The Treasurer explains his side to Mr. M's satisfaction, for, when he leaves at 10 A.M., Mr M immediately writes a letter to Antwerp explaining that he cannot interfere with the decision of the Treasurer.

Ten minutes later, Janice is called in: "Now who are these people coming at 11?" Once told, he asks Janice to ensure that his assistant join them in the meeting.

At 10:10, Mr. M walks through the executive offices toward the plant. On the way he passes the medical center and seems to note something. Once in the plant, he stops by various machines to watch the operations and chat with the workers. He drops by the office of the production superintendent, who is not in. He hands the Assistant Superintendent the advertisement clipped from Business Week, commenting: "Jerry may find this worthwhile to use for production scheduling."

Back in his office at 10:45, Mr. M finds a message to call the Executive Vice President, who is in Los Angeles. "They are asking thirteen million? Tell them we won't go a penny over ten, but, Joe, let's be prepared to settle for twelve instead of eleven."

This call is followed by a call to the Controller. "Have you been through the medical department lately? They don't need that new wing -- they are not using the space they have now."
The eleven o'clock meeting, which carries on over lunch, is held in the Board Room, with Mr. M, his assistant, and two members of a consulting firm in attendance. These meetings are held monthly for the duration of a consulting contract. After brief pleasantries, it becomes clear that there is friction here. The consultants are trying to explain their fees, while the assistant questions them. Mr. M, who has been silent, suddenly asks: "What about the charge for reprogramming? I don't think it should be borne by us." After some negotiation, a settlement is reached at lunch.  

As the recording system finally evolved, structured data were coded in three forms -- "the chronology record," "the mail record," and "the contact record."  

The chronology record, noting times and basic activities, and cross-referenced with the other two records, would look as follows:

<table>
<thead>
<tr>
<th>TIME</th>
<th>MEDIUM</th>
<th>REFERENCE</th>
<th>DURATION (IN HOURS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:20</td>
<td>Call</td>
<td>A</td>
<td>0.02</td>
</tr>
<tr>
<td>8:22</td>
<td>Desk Work</td>
<td>1-7</td>
<td>0.3</td>
</tr>
<tr>
<td>8:40</td>
<td>Unscheduled Meeting</td>
<td>B</td>
<td>0.2</td>
</tr>
<tr>
<td>8:55</td>
<td>Call</td>
<td>C</td>
<td>0.1</td>
</tr>
<tr>
<td>9:00</td>
<td>Scheduled Meeting</td>
<td>D</td>
<td>0.5</td>
</tr>
<tr>
<td>9:30</td>
<td>Unscheduled Meeting</td>
<td>E</td>
<td>0.5</td>
</tr>
<tr>
<td>10:00</td>
<td>Desk Work</td>
<td>(5)</td>
<td>0.2</td>
</tr>
<tr>
<td>10:10</td>
<td>Tour</td>
<td>G</td>
<td>0.1</td>
</tr>
<tr>
<td>10:40</td>
<td>Tour</td>
<td>H</td>
<td>0.2</td>
</tr>
<tr>
<td>10:45</td>
<td>Call</td>
<td>I</td>
<td>0.1</td>
</tr>
<tr>
<td>11:00</td>
<td>Scheduled Meeting</td>
<td>J</td>
<td>2.0</td>
</tr>
</tbody>
</table>

The chronology record was designed to provide basic data on the design of the working day, and to provide a reference to the other two records. It shows, at a glance, the distribution of media -- calls,  

23 In terms of quantity of work, this morning is not atypical. If anything, it is on the light side.
scheduled and unscheduled meetings, tours, desk work. Meetings, calls and tours are annotated with sequential letters, and pieces of mail are numbers as they are processed.

Meetings are defined as **unscheduled** if they are arranged hastily, as when someone just "drops in". "Tour" refers to a chance meeting in the hall, or to the promenades taken by the manager to see what is going on and to deliver information. "Desk work" refers to the time the manager spends at his desk, processing mail, scheduling activities, writing letters, or communicating with the secretary. "Duration" is recorded to the nearest tenth on an hour; actions lasting less than three minutes are recorded as lasting 0.02 hours.

The **mail record**, detailing the nature of the mail received and generated by the manager, would look as follows:

<table>
<thead>
<tr>
<th>#</th>
<th>FORM</th>
<th>FROM</th>
<th>PURPOSE</th>
<th>ATTENTION</th>
<th>ACTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Letter</td>
<td>Trade org.</td>
<td>Request to speak</td>
<td>Read</td>
<td>Reply: decline</td>
</tr>
<tr>
<td>2</td>
<td>Clipping</td>
<td>Salesman</td>
<td>Solicitation</td>
<td>Skim</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>Letter</td>
<td>External board</td>
<td>Notice of mtg.</td>
<td>Read</td>
<td>-</td>
</tr>
<tr>
<td>4</td>
<td>Periodical</td>
<td>-</td>
<td>Business news</td>
<td>Skim</td>
<td>Forward advert.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>to prod. super.</td>
</tr>
<tr>
<td>5</td>
<td>Memo</td>
<td>Foreign VP</td>
<td>Request resolve</td>
<td>Read</td>
<td>Reply: explain</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>staff conflict</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Report</td>
<td>Controller</td>
<td>Financial data</td>
<td>Skim</td>
<td>-</td>
</tr>
<tr>
<td>7</td>
<td>Letter</td>
<td>R&amp;D VP</td>
<td>Request signature</td>
<td>-</td>
<td>Sign</td>
</tr>
</tbody>
</table>

Each of these classifications is explained below:
Form: refers to the format of the correspondence.

From: the sender (if manager received a copy of correspondence not addressed to him, the addressee was noted as well).

Purpose: the reason for the mail (discussed in detail in Chapter IV).

Attention: skim, read, or study.

Action: immediate action taken by the manager (if action was delayed, it was often not possible to catch it in the one-week period).

(Note that mail originated by the manager was recorded in the same way.)

The contact record, providing detail on meetings, telephone calls, and tours, would look as follows:

<table>
<thead>
<tr>
<th>#</th>
<th>MEDIUM</th>
<th>PURPOSE</th>
<th>PARTICIPANTS</th>
<th>INITIATION</th>
<th>DURATION</th>
<th>PLACE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Call</td>
<td>Informed-event</td>
<td>Mfg., mgr.</td>
<td>Opposite</td>
<td>0.02</td>
<td>Office</td>
</tr>
<tr>
<td>B</td>
<td>Unsch., mtg. 2</td>
<td>Informed-I.C.</td>
<td>Assistant</td>
<td>Opposite</td>
<td>0.2</td>
<td>Office</td>
</tr>
<tr>
<td>C</td>
<td>Call</td>
<td>Informing-I.C.</td>
<td>Chairman</td>
<td>Self</td>
<td>0.1</td>
<td>Office</td>
</tr>
<tr>
<td>D</td>
<td>Sch., mtg. 3</td>
<td>Ceremony</td>
<td>Retiring emp., pers., staffer</td>
<td>Personnel</td>
<td>0.5</td>
<td>Office</td>
</tr>
<tr>
<td>E</td>
<td>Unsch., mtg. 2</td>
<td>Informed-action taken</td>
<td>Treasurer</td>
<td>Self</td>
<td>0.5</td>
<td>Office</td>
</tr>
<tr>
<td>F</td>
<td>Tour</td>
<td>Observation</td>
<td>Plant emps.</td>
<td>Self</td>
<td>0.5</td>
<td>Medical, plant</td>
</tr>
<tr>
<td>G</td>
<td>Tour</td>
<td>Informing-idea</td>
<td>Ass't., Super.</td>
<td>Self</td>
<td>0.1</td>
<td>Plant</td>
</tr>
<tr>
<td>H</td>
<td>Call</td>
<td>Strategy</td>
<td>Exec., VP</td>
<td>Opposite</td>
<td>0.2</td>
<td>Office</td>
</tr>
<tr>
<td>I</td>
<td>Call</td>
<td>Informing-decision</td>
<td>Controller</td>
<td>Self</td>
<td>0.1</td>
<td>Office</td>
</tr>
<tr>
<td>J</td>
<td>Sch., mtg. 4</td>
<td>Negotiating</td>
<td>Ass't., consultants</td>
<td>Clock</td>
<td>2.0</td>
<td>Board Room</td>
</tr>
</tbody>
</table>
Each of these classifications is explained below:

Medium: as in chronology record, except that number of people attending meeting is also noted.

Purpose: the reason for the activity (discussed in detail in Chapter IV); "ed" suffix refers to passive action (e.g., informed means manager received information); "ing" suffix refers to active action (e.g., requesting means manager made the request); I.C. means "instant communication" (see Chapter IV).

Participants: actual contacts.

Initiation: ostensible initiator ("clock" if event takes place regularly).

Duration: as in chronology record.

Place: location of manager during activity.

A final category, "role" — the reason for the manager's involvement — was added during the analysis and is the subject of Chapter VI.

Anecdotal Data

Finally, anecdotal data were recorded. These comprised:

- detailed notes, including relevant quotations, on activities of particular interest

- exhibits of actual correspondence, when available and relevant

- background information, obtained from discussions with the managers (usually at the end of the day)

These data were used (1) to facilitate coding, (2) in the development of the theory, and (3) as examples to support the choices of categories.
3.3 Reducing the Data

In *The Human Group*, George Homans talks of three levels of descriptive theory — a straight recounting of observation, abstract recording of this activity, and the development of hypotheses. In the previous section, the development of abstraction from observation was treated. In this section, the development of hypotheses and theories is discussed.

The theory is developed as follows: First, all the coded data of the three records are drawn together, and categories are developed to describe all of the observed activity. These are the categories that tended to evolve during the recording process. Thus, for example, each person with whom the manager deals is categorized as a client, a director, a peer, a subordinate, and so on; every contact is categorized as to its location — manager’s office, office of subordinate, board or conference room, hall or plant, away from organization; and, most important, every contact and piece of mail is categorized as to purpose.

Using these categorizations, it is possible to do some quantitative analysis of the data. While this analysis is not a primary objective of the research, the data are available and this kind of an analysis can no doubt lead to some useful conclusions. First, quantitative distributions are developed for every category. For example, an analysis is made of the proportion of time the managers spent with each type of person, and an analysis is made to determine

---

24 Homans, *op. cit.*
the proportion of contacts that took place in the managers' office, the offices of subordinates, and so on. Second, a multidimensional analysis is undertaken, to relate the various categories of "purpose" to the other factors. Such analysis indicates, for example, what types of people send printed information to the manager, how long strategy meetings tend to last as contrasted with meetings for other purposes, what types of mail the manager reacts to, who participated at ceremonial events, and who initiates contacts for purposes of scheduling time.

From this body of quantitative data, two sets of conclusions are drawn. Where the numbers lead to conclusions that are marked or do not meet with preconceptions, they are discussed as "the distinguishing characteristics of managerial work". Second, some conclusions are drawn from an analysis of the differences between the five men.

The primary objective of the research -- to describe the manager's working roles -- is achieved by analyzing the "purpose" categories. Specifically, the reasons for the manager's involvement in each activity are analyzed, and these reasons are collected together into a set of roles. Anecdotal materials are used to demonstrate and develop this theory. From this theory, a description of what appears to be the basic set of programs used by the manager in performing his work is presented. The interrelationships of these programs are depicted in visual form as well.
The research ends with a set of normative comments, which are derived from an analysis of the programs performed by the manager. In effect, it is argued that the manager's working habits can only be improved -- reprogrammed -- if the programs he currently uses are fully understood.

Figure Two summarizes the process of collecting and reducing the data.

3.4 Choosing Five Managers

Four factors entered into the choice of the five research subjects:

1. Position: chief executive (see section 3.1),

2. Experience: New managers were specifically excluded because their activities might have differed from managers whose work patterns had stabilized (e.g., duties of previous position might have remained temporarily),

3. Type of organization: Given that broad conclusions were sought, it was decided to choose a diversified sample, at least with respect to the organizations involved. The sample included one public organization, one non-profit service organization, one business service organization, one business technological organization, and one consumer goods manufacturing organization,

4. Reputation of organization: An attempt was made to study men from well-known organizations because (1) the field work would be more interesting, and (2) published information, giving direct insight to the man and his organization, would be readily available.
FIGURE 2: Collecting and Reducing the Data

RAW DATA
- Preliminary Data
  - one month of scheduled activity
  - the organization
  - the man

OBSERVATION
5 man-weeks

ANECDOCTAL DATA
- activity notes
- and quotations
- exhibits
- background from discussions

ANECDOCTAL DATA
- activity notes
- and quotations
- exhibits
- background from discussions

CODED DATA
- Chronology Record
  - medium, reference, time, duration
- Mail Record
  - form, from, purpose, attention, action
- Contact Record
  - medium, purpose, participants, initiation, duration, place

CATEGORIZING MANAGERIAL WORK
- categorizing work factors
- quantitative analysis
  (Chapter 4)

THEORY
- Characteristics of Managerial Work
  (Chapter 5)
- Differences in Managerial Work
  (Chapter 5)

MANAGERIAL ROLES
- analysis of reasons for manager's involvement in activities
  (Chapter 6)

MANAGERIAL PROGRAMS
(Chapter 7)

REPROGRAMMING MANAGERIAL WORK
(Chapter 7)
Three executives, Jack Mintzberg of Ever Ready Tag and Label Company Limited of Montreal, William F. Pounds of the M.I.T. Sloan School of Management, and Irving W. Rabb of Stop & Shop, Inc., of Boston, participated in the early stages of the research by allowing me to observe in the first case, and discuss, in the other two, their work activities.

Finally, a number of chief executives were asked to participate in the observational search. Of those asked, a few declined the invitation to participate. The others either accepted immediately, or wished to meet with me before accepting. All of those with whom I met agreed to take part. In general, I found that chief executives were quite interested in this type of research and were often willing to take part, even when approached by an unfamiliar student who did not work through an intermediary.

The five men who participated in the actual research, in order of acceptance, were:

General James M. Gavin, Chairman of the Board and Chief Executive Officer, Arthur D. Little, Inc.

General James M. Gavin is widely known for two recent appearances before the U.S. Senate Foreign Relations Committee hearings on the Vietnam war. The invitations to appear reflect his background — graduate of West Point, Major General and Commander of the 82nd
Airborne Division during World War II, Army Chief of Research and Development, author of three books and several articles on warfare, and U.S. Ambassador to France from March 1961 to October 1962.

General Gavin joined Arthur D. Little (ADL) in 1958, was elected President in 1960, and became Chairman of the Board in 1964.

Recent feature articles in The New York Times\textsuperscript{25} and Forbes\textsuperscript{26} describe ADL as a "think tank", the largest profit-making research organization in the United States, with 1500 employees and annual sales of thirty million dollars. Currently, there is emphasis on developing the foreign operations, with subsidiaries now located in London, Zurich, Toronto, and Mexico. Headquarters are in "six of the hundreds of plain, square buildings that make up the huge technological community clustered around Cambridge."

The popular press enjoys emphasizing the unique characteristics of many of the ADL projects, for example "the development of products as different as fiberglass and Cap'n Crunch breakfast cereal."

\textsuperscript{25}Richard Reeves, "Think Tanks: One Concern's Work Ranges from Submarine War to Cap'n Crunch", The New York Times (June 16, 1967), p. 31.

\textsuperscript{26}Forbes, "Consultant of All Trades" (November 15, 1966).

\textsuperscript{27}Reeves, op. cit.

\textsuperscript{28}Ibid.
Unique, as well, is the ownership of the company. With all the shares held by Memorial Drive Trust, a pension fund of the company's employees, the organization is best described, not as a true business firm, but as a mutual benefit organization.  

Mr. Bernard J. O'Keefe, President, EG&G, Inc.

An engineer by training and experience, Bernard J. O'Keefe was a member of the group that formed EG&G, Inc., in 1947. Before he became President in 1965, he held the positions of Chief Engineer, Vice President, and Executive Vice President. Mr. O'Keefe maintains affiliations with a number of professional engineering and technological societies, and currently holds the positions of President of the Greater Boston Chamber of Commerce, and Vice Chairman of the Massachusetts Board of Higher Education.

EG&G is a large, rapidly growing firm, an example of the technological corporations that dot the environs of Boston's Route 128. Sales grew 20% in 1966 to $65 million, partly as a result of extensive acquisition activity. In 1959, sales were less than ten million dollars.  

---

29 In Formal Organizations (San Francisco: Chandler, 1962), Blau and Scott distinguish organizations according to their prime beneficiaries. In addition to "mutual benefit" organizations (where employees are prime beneficiaries), they describe business organizations (owners), service organizations (clients), and commonweal organizations (the public).

The company sells various measuring equipment, including energy switching devices, picammeters, and sonar systems. Active operations are conducted in such fields as oceanography and nuclear weapon testing. Most of this activity is oriented to research and development, with extensive work done under the direction of the AEC, DOD, and NASA. The company takes an interest in peaceful uses of nuclear energy.

Dr. John H. Knowles, General Director, Massachusetts General Hospital

Dr. John Knowles first joined the Massachusetts General Hospital as an intern in 1951. He returned in 1955 as a resident in medicine, and in 1962, at the age of 35, he was appointed General Director of the Hospital. He has held various positions at the Harvard Medical School in conjunction with his stay at the hospital, and his list of publications includes fifty items, the earlier ones dealing with technical issues, the later ones with hospital administration and the role of the hospital. His latest book consists of a collection of papers on the teaching hospital.\(^\text{31}\) In addition, Dr. Knowles actively pursues his interests in the general educational process, and he sits on the board of the Educational Services Incorporated.

\(^{31}\)John H. Knowles (Editor), The Teaching Hospital (Cambridge, Massachusetts: Harvard University Press, 1966).
Founded in 1811, the "MGH" developed its worldwide reputation through early uses of anesthesia, contributions to antiseptic surgery, and the discovery of the nature of appendicitis.\textsuperscript{32} Due to its connection with the Harvard Medical School, the MGH evolved as a leading research and teaching hospital, as is indicated by its choice as the number one hospital in the United States in a recent magazine poll.\textsuperscript{33} The Hospital is a large one, comprising a number of buildings in downtown Boston and a mental hospital in suburban Belmont. In 1966, there were 364,000 patient days, expenses totaled $31 million, and some 6,000 people were employed.\textsuperscript{34}

\textbf{Mr. Harry B. Henshel, President, Bulova Watch Company, Inc.}

Mr. Harry Henshel, grandson of the Bulova Watch Company's founder, entered the company from the Harvard Business School and worked up to the Presidency through the marketing department. He became President in 1959, after "20 years of preparation".\textsuperscript{35} The company was in the

\begin{itemize}
\item \textsuperscript{32}Joseph E. Garland, \textit{Every Man Our Neighbor: A Brief History of the Massachusetts General Hospital, 1811-1961} (Boston: Little, Brown, 1961).
\item \textsuperscript{33}The poll, conducted by the \textit{Ladies Home Journal}, aroused considerable controversy in the medical profession, in part due to the composition of the panel that made the choice.
\item \textsuperscript{34}The Massachusetts General Hospital \textit{Annual Report of the Trustees} (Boston, 1966).
\item \textsuperscript{35}From a speech made by Mr. Henshel to the Boston Security Analysts Society, entitled \textit{'Transition of Generations' - A New Era for Bulova Watch}, November 7, 1966.
\end{itemize}
midst of a crisis at the time — the Timex revolution had coincided with general recession in the industry — and Bulova sales were down 17% from 1954. The revitalization of the company — effected by the introduction of new lines and the enforcement of fair trading — was then begun, and recently a number of magazine articles have attested to Bulova's success.

In 1875, a 23 year old immigrant started a small jewelry store in New York. It was his son, Arde Bulova, who built the organization, through the 1920's and 1930's, into the largest watch producer in the world. Bulova's sales volume for 1965 was $100 million, with plants in the United States, Canada, and Switzerland, and selling efforts in 89 countries. Three watch lines — Caravelle, Bulova, and Accutron — account for the bulk of the sales, but the company also markets electric products (radios, clock-radios, portable record players) and conducts industrial and defense activities.

Dr. Charles E. Brown, Superintendent, Newton Public Schools

Dr. Brown took his bachelor's degree in physical education, and later returned to Harvard University to take a master's degree and a

---

36 Ibid.


38 Much of this information, and the information that follows, is documented in public relations material produced by the company, and in its annual report for the year ended March 31, 1966.
doctorate in education. He began teaching in Newton in 1954, and after moving into the administration, assumed the superintendency at the age of 35, in 1960.

The Newton School System has certain things in common with the Massachusetts General Hospital. It is an outstanding and innovative organization, with close ties to Harvard University (in this case, the Graduate School of Education), and has been ranked among the best school systems in the country. A recent book on seven school systems in various parts of the country devoted a chapter to the Newton System. The author commented in part:

Depending on the list consulted — assuming such lists mean something — the Newton school system is either the best, the second best, or one of the top ten in the country. If you ask the seventeen-year old bellboy at the Charter House motel about the schools, he will quote you the most recent educational survey or the latest thinkpiece in Time... If you read James B. Conant, you will learn that Newton's schools "are said by many to be representative of the lighthouse schools that point the way to excellence in education".

... Newton operates on the university model. Its teachers are faculty members, not "staff". Superintendent Brown, who began his Newton career as a teacher in 1954, said he tries "to create a climate to make improvement possible. We want to be open for ideas from any place, and to create a sense of dissatisfaction about what we're doing." The desire to be "open for ideas" illustrates Newton's passion to be relevant, to be "with it".

The article goes on to point out the strengths of the system: an apolitical school board and interested community, autonomous superintendency, and a strong sense of intellectual inquiry; and its weaknesses: overemphasis on intellectual pursuits, growing religious conflicts, and excessive pressures on the student to succeed.

The system has about 18,000 students, housed in thirty-three schools and a junior college. The annual budget amounts to $15 million. 40

Common to all these men are (1) their position: each is clearly the chief executive in his organization; (2) the basic environment: in each case, a large line and staff organization reports to the chief executive, and there exists, by one name or another, an active board of directors; (3) the success of their organizations: on commonly used criteria, each organization is judged highly successful -- the commercial ones are profitable, are growing rapidly, and are among the largest in their fields; the hospital and school system are judged to be among the best in the country; all are working at the frontiers of modern scientific development; and each of the four in Boston has a deeply-rooted tie to either Harvard or M.I.T.; (4) certain basic aspects of their backgrounds: all are experienced chief executives, all worked in their own organizations before assuming their present positions, all are college educated.

40 Much of this information is documented by the system in its various annual statements.
Certain personality traits are common to the live, notably a love of their work, a basic confidence in themselves, and a deep concern for their organizations. Beyond this, their personalities differ as much as would the personalities of men selected randomly from the population at large. The range is from flamboyant to sedate, from urgent to reflective, from empathetic to demanding.

3.5 Success of the Field Work

"Structured observation" produced all the results expected of it. Induction was possible and facilitated by the structuring, and there were some problems in data collection. The following points are worthy of mention:

1. "Structured observation" is a full-time job, and a very demanding one at that. There was an immense amount of data to be collected, and it frequently came in short, dense bursts. In effect, the researcher is tied to the schedule of the chief executive, which is usually a hectic one. Related to one particular week of observation, 334 pages of notes were collected, comprising 124 pages of preliminary data (magazine articles, speeches, and public relations releases, etc.), 5 sheets of chronology records, 72 sheets of mail records (60 raw data, 12 coded), 119 sheets of contact records (111 raw data, 8 coded), and 14 pages of general notes. In this case, I observed 111 contacts during the week, while in another case, 132 pieces of correspondence were processed in less than four hours. At times it was particularly difficult to keep up with the flow of correspondence, because the
manager knew at a glance what was contained in a piece of mail and I did not. In all, 890 pieces of mail and 368 verbal contacts were encountered in the 5 weeks of observation.

Nevertheless, I was able to satisfy myself that no contact or piece of mail went unrecorded due to time pressures. It will be remembered that much of the data collected during observation were structured, and the rest were anecdotal. It was possible to react to the lack of slack time by temporarily eliminating the recording of anecdotal data, hoping to recall the events when there was time to record them.

I found it necessary to code the observations, and to type my impressions as general notes during the evening that followed observation. By doing so, I ensured that there would be no later problems in interpreting what I had written and seen.

2. In general, the one week period was representative. In a job where crises occur frequently, and where a constantly changing environment makes new demands on the manager, no one week (indeed, no one year) can be called truly "typical". Nevertheless, there was reason to believe that the observational periods were representative of the usual mix of work. In each case, a comment such as the following was made:

This has been a dizzy day. One thing you can't let it do is worry you... You got a pretty good cross-section of the business though.

You've had an especially good week.
The secretaries also commented that the weeks under study were representative.

It is interesting to note that, in addition to commenting on the fact that the week was typical, each man commented on the pace of activity. It soon became clear that every week was "a particularly active one". In only one case was a reservation expressed. Dr. Brown was observed during the final week of the school year, and he commented that his mail was particularly light.

There were two more important factors to encourage me to argue that the observational periods were representative. First, I had collected information on the scheduled meetings of a previous month. I compared this set of meetings with the set studied during the week of observation. The frequency of meetings, the nature of participants, and the duration of meetings appeared to be similar for the two samples. Second, as will be seen in the next chapter, there was surprising consistency between the data collected during the five separate observation periods. Five separate men in five distinct organizations were involved, yet the men clearly engaged in the same kinds of activities, and in the same approximate proportions.

There was one clear bias in the choice of observational period. Although much of the chief executive's time is often spent in long-distance travel, it was obviously necessary for me to choose a week in which intercity travel was minimal. Nevertheless, there was some travel, the appropriate data were recorded, and I was satisfied that
no activity which differed in kind from that recorded was undertaken
during periods of travel. Obviously, the mix of activities would vary
during travel periods as would the quantity of correspondence processed.

3. A different methodology had to be improvised for certain
kinds of activities. Five kinds of activities presented recording
problems:

Telephone calls: It was not possible to hear the other
end of the conversation.

Evening work: Working at the manager's home could not be
observed.

Activities away from the organization: It was frequently
not possible for me to accompany the manager to
meetings at other organizations (e.g., board meetings).

Missed meetings: From time to time, I was asked to miss
a meeting. Interestingly, it was seldom because the
meeting was confidential. Rather, these were
meetings involving sensitive personal issues (e.g.,
an employee explaining his departure). The chief
executives had no qualms about my being exposed to
strategically sensitive issues. It is also worth
noting that only in one case, to my knowledge, was
correspondence withheld from me, and that, because
it was officially designated as "secret" by the
U.S. government.

Complex meetings: At times, a meeting was one of a series
that took place over many months, involving intricate
negotiations or problem-solving. Part of what took
place was not understandable to me as an outsider.
Only the highly structured data (e.g., duration,
participants) could be recorded. It was difficult
to infer the purpose of the meeting, and impossible
to record meaningful anecdotal notes. The same
problem occurred, although less frequently, with
telephone calls and mail.
One procedure was used to circumvent these five problems. The executive was asked to summarize, in a sentence or two, the information that was needed. After a short period of time, each man came to understand what kinds of data I was seeking, and he had little trouble briefing me. For example, after a telephone call in which the chief executive did little talking, I was told (1) who called, and (2) the purpose of the call. For missed meetings, distant meetings, and complex meetings, a short, general résumé sufficed, while evening work was discussed during the next day.

In general, only a few specific questions could be asked during the day, but, very frequently, between 5 and 6 P.M. we would converse for periods of one-half hour or more. At these times, I could ask for details on missed or confusing contacts and mail, and could review the previous evening's activities. This was also a time to learn about the chief executive's thoughts -- impressions of his job and its related problems, his strategies and aspirations, and so on. These were very candid discussions, and ones that seemed to be enjoyed by the chief executives.

(A fourth factor associated with structured observation -- the difficulty of coding certain kinds of observations -- is discussed in detail in Chapter IV, after the quantitative data are presented.)
3.6 Hawthorne Effects

Can a researcher sit in a manager's office and not influence the events that take place in his presence? There is no reason to believe so, but the important issue is -- to what extent do these influences significantly change the factors being studied?

The unanticipated consequences of observational research in the social sciences -- the "Hawthorne Effects" -- were present in this study, but I believe it can be demonstrated that they did not appreciably influence the elements of the work under study.

The basic events of any manager's week are not subject to these kinds of changes. Scheduled meetings are set up well in advance, and incoming telephone calls and mail are not influenced by the presence of an observer. Perhaps it could be argued that fewer unscheduled meetings and originated calls would take place, but given the kinds of information I was exposed to at various times, there was no reason to believe that events were delayed to avoid my being exposed to them.41

---

41 There was one amusing incident when my presence caused an activity to occur. On the last day at Bulova, the President quickly disappeared and reappeared a few minutes later with his two key deputies. They had a gift, and a request: "Now, tell us what you've learned this week." This was not the time to theorize about the differences between descriptive and normative research, so I quickly recalled my impressions of the week. When the meeting ended, I had to note:

Unscheduled meeting
Purpose: Informed -- own managerial activities
Participants: Executive VP and Legal Counsel,
VP Personnel and Public Relations,
thesis-writing student.
By my estimations, the only Hawthorne Effects of note occurred during scheduled meetings. Clearly, the manager could get used to my presence as the week progressed, but to most participants at meetings, with the exception of a small band of deputies who had frequent unscheduled contacts, my presence was unexpected. In almost every case (the exceptions being very large meetings where my presence would not be noticed), introductions were necessary. At times, when the manager was unsure whether the opposite party would agree to my presence, he was asked during the introduction. This, of course, put him on the spot and one chief executive would meet the man in the hall and put the question to him before the introduction. In no case, to my knowledge, did anyone express misgivings about my presence. Most of the time, the only questions asked reflected an interest in the research being undertaken.

It is interesting to note how a manager introduces a student who is observing him for a week. At various times, I was referred to as "my shadow", "an efficiency expert", "a sociologist", "a time study man", and, once, "an observer from M.I.T." This last title was particularly interesting because it was used by a man who, each time but one, introduced me as a doctoral student studying the activities of five managers. This exception occurred during a meeting with two computer consultants, who were being put under pressure due to a cost disagreement. It seemed likely that my presence and my academic institution were used to imply a certain expertise, and thereby increase the pressure on the consultants.
One man could never decide how to introduce me and, each time, he asked me to do it. Once, before meeting a visitor from Japan, he commented: "You explain what you're doing... I want to see how you're going to handle this one!"

Once introductions were accomplished, various patterns set in. A few people (for instance, the computer consultants) were self-conscious, and would steal quick glances in my direction as if they did not believe the expressed explanation for my being there. Others sympathized with my mission and would direct some comments to me, particularly for purposes of clarification. Even one chief executive made a habit of this procedure. In more than one case, Dr. Knowles would interrupt a meeting, turn to me with a comment such as, "see what I'm trying to do now...", and then explain the process taking place. However, in the vast majority of meetings, my presence was quickly forgotten. Interestingly enough, though, I felt that in order to effect this I had to reflect the mood of the meeting. If the conversation was light and humorous, a researcher engrossed in his work would stand out; if the mood was one of conflict, a smiling researcher might upset it. Thus, in one sense, I had to become part of the proceedings in order not to influence them.

In spite of all the adjustments that took place during meetings, the main subjects of research interest -- purpose of the activity and the reasons for the manager's involvement -- were generally unaffected. The presence of an observer will not change the basic purpose of a
meeting, although it may change the style that the manager uses
during the meeting. Since this was a study of activity rather than
of style, I concluded that the Hawthorne Effects were inconsequential.

Given the detailed description of the methods of collecting and
reducing the data, it is now possible to turn to the analysis of
these data.
CHAPTER IV

CATEGORIZING MANAGERIAL WORK

"In this life, we want nothing but Facts,  
Sir; nothing but Facts!"

Charles Dickens¹

To build a theory of managerial work, it is necessary to begin by describing, in a rigorous way, the actual activities of managers. Five managers were observed for one-week periods, and, in this chapter, their activities are described and categorized in detail. No attempt is made, at this point, to explain why the manager does what he does; the objective in this chapter is simply to recount what the manager can be seen to do, when and where he does this work, and with whom.

Much data must be presented. During the five weeks, 659 pieces of mail reached the managers' desks, 231 pieces were sent out, and 368 distinct verbal contacts were made. In total, 1258 records were

¹Charles Dickens, Hard Times, "Book the First, Sowing", Chapter 1.

- 99 -
collected. For ease of understanding, four means are used to present the results of this research: (1) A number of tables display the data derived from the chronology, mail, and contact records. In addition to the totals and averages, breakdowns are shown for each of the five men studied. This is done in part to allow the reader to assess the generality of the results.\(^2\) (2) As an aid to the reader, one graph, seven pie charts, and two diagrams are used to display the data of the tables. (3) The information of the tables is explained in verbal form in a set of numbered paragraphs, which follow the figures. (4) Following the presentation of the basic data, three "notes" are included which present the non-quantitative information. Included are notes on evening work and the design of the workday, the role of the secretary, and the difficulties of the categorizing process.

The presentation of the data collected in each of the three records follows:

4.1 The Chronology Record: Profile of the Managerial Day

The Chronology Record indicates the density and pattern of activities throughout the workday. This information provides insight into such factors as the length of the work week, the scheduling of activities over the course of the day, the total and average time spent on basic activities, and the density of the mail flow. Figures 3, 4, and 5, which follow, present the data of the Chronology Records.

\(^2\)The discussion of the differences between the men studied is presented at the end of Chapter V. At this point I would like to draw the reader's attention to what I believe are remarkable similarities in the great majority of categories among each of the five men studied.
### FIGURE 3: ANALYSIS OF THE CHRONOLOGY RECORD

Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Gavin</th>
<th>O'Keefe</th>
<th>Knowles</th>
<th>Henshel</th>
<th>Brown¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hours Worked</td>
<td>202 hours</td>
<td>28²</td>
<td>36</td>
<td>45</td>
<td>53</td>
<td>40</td>
</tr>
<tr>
<td>Hours in travel to outside meetings</td>
<td>18 hours</td>
<td>5.4</td>
<td>7.1</td>
<td>4.5</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>(excl.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hours of evening meetings</td>
<td>24 hours</td>
<td>-</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>(included)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total amount of mail</td>
<td>890 pieces</td>
<td>161</td>
<td>165</td>
<td>230</td>
<td>222</td>
<td>112³</td>
</tr>
<tr>
<td>Average amount of mail processed per day</td>
<td>36 pieces</td>
<td>32</td>
<td>33</td>
<td>46</td>
<td>44</td>
<td>22</td>
</tr>
<tr>
<td>Total number of activities</td>
<td></td>
<td>547</td>
<td>101</td>
<td>86</td>
<td>96</td>
<td>160</td>
</tr>
</tbody>
</table>

#### Desk Work

| Number of sessions                    | 179     | 36    | 31      | 25      | 54      | 33     |
| Time on desk work                    | 44 hours| 10.6  | 8.3     | 8.3     | 10.7    | 6.4    |
| Average duration                      | 15 min. | 18    | 16      | 20⁴     | 12      | 12     |
| Proportion of time                   | 22%     | 38%   | 23%     | 18%     | 20%     | 16%    |

#### Telephone Calls²

| Number of calls                       | 133     | 27    | 27      | 30      | 22      | 27     |
| Time on telephone                     | 13 hours| 2.4   | 3.2     | 3.0     | 1.9     | 2.4    |
| Average duration                      | 6 min.  | 5     | 7       | 6       | 5       | 5      |
| Proportion of time                    | 6%      | 9%    | 9%      | 7%      | 4%      | 6%     |

#### Scheduled Meetings

| Number of sch. meetings               | 105     | 16    | 14      | 27      | 18      | 30     |
| Time in sch. meetings                 | 120 hours| 10.6  | 20.6    | 29.1    | 29.5    | 29.8   |
| Average duration                      | 68 min. | 40    | 88      | 55      | 98      | 50     |
| Proportion of time                    | 59%     | 38%   | 57%     | 65%     | 55%     | 75%    |

#### Unscheduled Meetings

| No. of unsch. meetings                | 101     | 10    | 14      | 10      | 55      | 12     |
| Time in unsch. meetings               | 20 hours| 1.7   | 3.5     | 4.0     | 9.6     | 1.2    |
| Average duration                      | 12 min. | 10    | 15      | 24      | 10      | 6      |
| Proportion of time                    | 10%     | 6%    | 10%     | 9%      | 18%     | 3%     |

### Tours

| Number of tours                       | 29      | 12    | -       | 4       | 11      | 2      |
| Time on tours                         | 5 hours | 2.9   | -       | 0.5     | 1.5     | 0.2    |
| Average duration                      | 11 min. | 14    | -       | 8       | 8       | 6      |
| Proportion of time                    | 3%      | 10%   | 0%      | 1%      | 3%      | 1%     |

#### Proportion of Activities

- **last less than 9 min.**
  - 49% | 44% | 40% | 45% | 56% | 51%
- **Proportion lasting longer than 60 minutes**
  - 10% | 5%  | 12% | 13% | 9%  | 12%

**Notes:**

1. James M. Gavin is Chairman and Chief Executive Officer of Arthur D. Little, Inc.; Bernard J. O'Keefe is President of EG&G, Inc.; John H. Knowles is General Director of the Massachusetts General Hospital; Harry B. Henshel is President of Bulova Watch Co.; and Charles E. Brown is Superintendent of the Newton Public Schools.

2. It was decided to exclude a seven hour trip that General Gavin took to Washington in connection with the Fulbright Hearings (see Section 1.7).

3. Dr. Brown commented that his mail was significantly lighter at the time of observation — the last week of classes.

4. Dr. Knowles spent Saturday processing much of his mail. He was largely uninterrupted, spending one 3.1 hour session and one 0.7 hour session. Excluding these, the average duration of his desk work sessions would have been 12 minutes.

5. Telephone calls screened or made by the secretary are excluded.
Figure 4: FREQUENCY DISTRIBUTION OF MANAGERIAL ACTIVITIES BY DURATION (in Hours)

Based on Five Weeks of Observation

- Desk Work: Average = 15 minutes
- Telephone Calls: Average = 5 minutes
- Scheduled Meetings: Average = 68 minutes
- Unscheduled Meetings: Average = 12 minutes
- Tours: Average = 11 minutes

Hours
Figure 5: DISTRIBUTION OF ACTIVITIES BY MEDIA

Distribution of Hours

- Unscheduled Meetings
- Tours
- Desk Work
- Telephone Calls
- Scheduled Meetings

Average for 5 weeks of observation

Distribution of Number of Activities

- Desk Work
- Tours
- Unscheduled Meetings
- Telephone Calls
- Scheduled Meetings
The following information is drawn from an analysis of the chronology records:\(^3\)

1. **Working Hours:** During the five weeks of observation, the chief executives spent perhaps 15% more time at work than did their 35 hour-per-week subordinates. Some of this time was spent in evening meetings. In addition, they averaged another 4 hours of work-related travel each week, primarily in the vicinity of their own offices. Also, many hours were spent at home, reading and thinking about the work.\(^4\) In general, the office hours were the same as those of the organization, except that lunch hours were usually devoted to business. It appears that, in general, these managers often stay a few minutes beyond official closing time, and may spend the occasional Saturday at the office.

2. **Frequency of Activities:** The frequency of his activities was extremely high. There was a steady flow of mail averaging 36 pieces per day, and, on the average, 22 distinct activities each day.

3. **Distribution of Activities:** These activities were distributed on the average as follows: Each day, there were 7 sessions of desk work (periods when the manager works alone, or with his secretary, in the confines of his office, sorting and processing mail, reading reports, originating and replying to correspondence, signing letters and forms, writing and editing reports and speeches, reading notes from his secretary regarding telephone messages, and scheduling his time). These sessions were interspersed with 5 telephone calls, 4 scheduled meetings (that is, formal, prearranged meetings, and

\(^3\)Note that only averages and totals are discussed in this chapter. The differences between the men studied are discussed in Chapter V.

\(^4\)See Section 4.5.
4. **Scheduled Meetings**: Although less than one-fifth of the activities were scheduled meetings, they consumed a full 59% of the managers' time, averaging over one hour each (68 minutes). They lasted from 6 minutes to 7 hours, with about one-half lasting longer than 1 hour.

5. **Unscheduled Contacts**: The unscheduled contacts were generally of short duration. Most telephone calls lasted less than 10 minutes, and many were completed in about 1 minute. No telephone call in the 25 workdays lasted as long as 30 minutes; the average call took 6 minutes, and 6% of the manager's time was spent on the telephone. Unscheduled meetings averaged 12 minutes, but a few of them took from 30 to 90 minutes. In total, they consumed 10% of the manager's time. Tours were perhaps of shorter duration than would be expected, averaging 11 minutes, and taking only 3% of the time.

6. **Desk Work**: The chief executive had 22% of their time to themselves, to process mail and schedule arrangements with the secretary. These periods were only of 18 minutes average duration, and seldom lasted longer than 45 minutes, unless the executive was willing to do this work during off-hours.

7. **Duration of Activities**: It was surprising to find that close to one-half of all activities lasted less than 9 minutes, while only 10% lasted longer than 1 hour.

An analysis of the individual records produced two additional sets of conclusions:
8. Speed of Mail Handling: The mail was usually processed at very rapid rates. In each case, there were long periods when processing speeds exceeded 30 pieces per hour, and in one case, a large number of magazines were processed at 2 per minute. In all, well over half the mail was processed at at least the former rate, and on one Saturday, when there were few interruptions, Dr. Knowles read 97 pieces of mail and reacted to 45 in a period of just over three hours.

9. Maximum Levels of Activity: The managers were capable of accomplishing huge amounts of work when necessary. The busiest day was spent by President Heshel who engaged in 14 sessions of desk work, during which there were 66 pieces of mail processed, 3 telephone calls, 3 scheduled meetings, 17 unscheduled meetings, and 5 tours, in all, 42 activities. Dr. Brown, in one day, had 8 scheduled meetings; Dr. Knowles processed 168 pieces of mail on the Saturday he came in; and General Gavin engaged in the maximum number of telephone calls in any one day, 10.

4.2 The Mail Record: Flow of Documented Information

The mail record captures the essence of the flow of documented information. Figures 6, 8, and 9 deal with the 659 pieces of mail that the managers received during the five weeks, and Figures 7, 8, and 10 deal with the 231 pieces of mail that they generated. At the end of this section, Figure 11 depicts in visual form the flow of documented information. Figures 6-10 follow:
FIGURE 6: ANALYSIS OF THE MAIL RECORD: INPUT
Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Gavin</th>
<th>O'Keefe</th>
<th>Knowles</th>
<th>Henshel</th>
<th>Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td># Pieces Received</td>
<td>659</td>
<td>112</td>
<td>142</td>
<td>164</td>
<td>172</td>
<td>69</td>
</tr>
<tr>
<td>Form of Input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter</td>
<td>29%</td>
<td>28</td>
<td>15</td>
<td>40</td>
<td>26</td>
<td>43</td>
</tr>
<tr>
<td>Memo</td>
<td>10%</td>
<td>14</td>
<td>1</td>
<td>9</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Report</td>
<td>25%</td>
<td>12</td>
<td>28</td>
<td>32</td>
<td>23</td>
<td>28</td>
</tr>
<tr>
<td>Periodical</td>
<td>16%</td>
<td>13</td>
<td>41</td>
<td>6</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Copy of Letter</td>
<td>9%</td>
<td>16</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>Copy of Memo</td>
<td>6%</td>
<td>11</td>
<td>4</td>
<td>2</td>
<td>10</td>
<td>2</td>
</tr>
<tr>
<td>Clipping</td>
<td>4%</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Book</td>
<td>1%</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skim</td>
<td>31%</td>
<td>32</td>
<td>63</td>
<td>34</td>
<td>13</td>
<td>6</td>
</tr>
<tr>
<td>Read</td>
<td>63%</td>
<td>65</td>
<td>33</td>
<td>57</td>
<td>80</td>
<td>94</td>
</tr>
<tr>
<td>Study</td>
<td>6%</td>
<td>4</td>
<td>4</td>
<td>9</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Sender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subordinate</td>
<td>39%</td>
<td>49</td>
<td>21</td>
<td>30</td>
<td>47</td>
<td>62</td>
</tr>
<tr>
<td>Director</td>
<td>1%</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Peer</td>
<td>16%</td>
<td>17</td>
<td>9</td>
<td>31</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Trade Organization</td>
<td>9%</td>
<td>2</td>
<td>10</td>
<td>20</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Client</td>
<td>5%</td>
<td>11</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Supplier or Associate</td>
<td>8%</td>
<td>2</td>
<td>14</td>
<td>4</td>
<td>13</td>
<td>4</td>
</tr>
<tr>
<td>Independent</td>
<td>6%</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>10</td>
<td>3</td>
</tr>
<tr>
<td>Publisher</td>
<td>11%</td>
<td>10</td>
<td>27</td>
<td>2</td>
<td>13</td>
<td>3</td>
</tr>
<tr>
<td>Government</td>
<td>5%</td>
<td>3</td>
<td>9</td>
<td>4</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td>Purpose of Input Mail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>5%</td>
<td>7</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Status Requests</td>
<td>12%</td>
<td>10</td>
<td>5</td>
<td>15</td>
<td>8</td>
<td>30</td>
</tr>
<tr>
<td>Solicitations</td>
<td>5%</td>
<td>4</td>
<td>9</td>
<td>3</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Authority Requests</td>
<td>5%</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>12</td>
</tr>
<tr>
<td>Total Requests</td>
<td>21%</td>
<td>17</td>
<td>18</td>
<td>23</td>
<td>16</td>
<td>45</td>
</tr>
<tr>
<td>Reference Data</td>
<td>14%</td>
<td>8</td>
<td>11</td>
<td>20</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>General Reports</td>
<td>8%</td>
<td>6</td>
<td>5</td>
<td>18</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Periodical News</td>
<td>15%</td>
<td>12</td>
<td>42</td>
<td>5</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Events</td>
<td>8%</td>
<td>4</td>
<td>6</td>
<td>12</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Reports on Operations</td>
<td>18%</td>
<td>30</td>
<td>12</td>
<td>8</td>
<td>25</td>
<td>12</td>
</tr>
<tr>
<td>Advice on Situations</td>
<td>6%</td>
<td>7</td>
<td>2</td>
<td>3</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>Problems and Pressures</td>
<td>2%</td>
<td>4</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Ideas</td>
<td>2%</td>
<td>4</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Total Information</td>
<td>74%</td>
<td>76</td>
<td>80</td>
<td>70</td>
<td>78</td>
<td>51</td>
</tr>
</tbody>
</table>

Note:
1. Periodicals received and read at the managers' homes were not included.
2. Includes buyer of consumer goods or service, patient in hospital, parent associated with school system.
FIGURE 7: ANALYSIS OF THE MAIL RECORD: OUTPUT
Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Gavin</th>
<th>O'Keefe</th>
<th>Knowles</th>
<th>Henshel</th>
<th>Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td># Pieces of Mail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reacted to</td>
<td>206</td>
<td>34</td>
<td>20</td>
<td>65</td>
<td>49</td>
<td>38</td>
</tr>
<tr>
<td>Self-initiated</td>
<td>25</td>
<td>15</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Total Output</td>
<td>231</td>
<td>49</td>
<td>23</td>
<td>66</td>
<td>50</td>
<td>43</td>
</tr>
<tr>
<td>Proportion of Input</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reacted to</td>
<td>1:3</td>
<td>1:3</td>
<td>1:7</td>
<td>1:2\frac{1}{2}</td>
<td>1:3\frac{1}{2}</td>
<td>1:2</td>
</tr>
<tr>
<td>Self-initiated as Percent of Output</td>
<td>11%</td>
<td>31%</td>
<td>13%</td>
<td>2%</td>
<td>2%</td>
<td>12%</td>
</tr>
<tr>
<td>Form of Output Mail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Letter</td>
<td>47%</td>
<td>53%</td>
<td>39%</td>
<td>56%</td>
<td>30%</td>
<td>51%</td>
</tr>
<tr>
<td>Memo</td>
<td>19%</td>
<td>14%</td>
<td>22%</td>
<td>9%</td>
<td>30%</td>
<td>26%</td>
</tr>
<tr>
<td>Report</td>
<td>2%</td>
<td>4%</td>
<td>9%</td>
<td>-</td>
<td>-</td>
<td>2%</td>
</tr>
<tr>
<td>Forwarded Letter</td>
<td>18%</td>
<td>22%</td>
<td>30%</td>
<td>8%</td>
<td>28%</td>
<td>9%</td>
</tr>
<tr>
<td>Forwarded Memo</td>
<td>5%</td>
<td>2%</td>
<td>-</td>
<td>9%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Forwarded Clipping, Report, Periodical, Book</td>
<td>9%</td>
<td>4%</td>
<td>-</td>
<td>18%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>Target of Output Mail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subordinate</td>
<td>55%</td>
<td>41%</td>
<td>57%</td>
<td>45%</td>
<td>68%</td>
<td>67%</td>
</tr>
<tr>
<td>Director</td>
<td>2%</td>
<td>6%</td>
<td>4%</td>
<td>-</td>
<td>-</td>
<td>2%</td>
</tr>
<tr>
<td>Peer</td>
<td>17%</td>
<td>22%</td>
<td>22%</td>
<td>24%</td>
<td>12%</td>
<td>2%</td>
</tr>
<tr>
<td>Trade Organization</td>
<td>5%</td>
<td>-</td>
<td>-</td>
<td>12%</td>
<td>6%</td>
<td>-</td>
</tr>
<tr>
<td>Client</td>
<td>7%</td>
<td>22%</td>
<td>4%</td>
<td>3%</td>
<td>-</td>
<td>5%</td>
</tr>
<tr>
<td>Supplier or Associate</td>
<td>3%</td>
<td>4%</td>
<td>4%</td>
<td>-</td>
<td>8%</td>
<td>-</td>
</tr>
<tr>
<td>Independent</td>
<td>5%</td>
<td>2%</td>
<td>4%</td>
<td>9%</td>
<td>6%</td>
<td>-</td>
</tr>
<tr>
<td>Government</td>
<td>7%</td>
<td>2%</td>
<td>-</td>
<td>6%</td>
<td>-</td>
<td>23%</td>
</tr>
<tr>
<td>Purpose of Output Mail</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledge Mail</td>
<td>12%</td>
<td>12%</td>
<td>9%</td>
<td>17%</td>
<td>10%</td>
<td>7%</td>
</tr>
<tr>
<td>Reply to Written Requests</td>
<td>33%</td>
<td>20%</td>
<td>39%</td>
<td>33%</td>
<td>26%</td>
<td>51%</td>
</tr>
<tr>
<td>Reply to Information Received</td>
<td>10%</td>
<td>4%</td>
<td>4%</td>
<td>14%</td>
<td>18%</td>
<td>7%</td>
</tr>
<tr>
<td>Forward Information to Subordinate</td>
<td>23%</td>
<td>24%</td>
<td>13%</td>
<td>27%</td>
<td>34%</td>
<td>9%</td>
</tr>
<tr>
<td>Forward Request to Subordinate</td>
<td>7%</td>
<td>2%</td>
<td>13%</td>
<td>8%</td>
<td>6%</td>
<td>12%</td>
</tr>
<tr>
<td>Write to 3rd party re Mail</td>
<td>3%</td>
<td>6%</td>
<td>9%</td>
<td>-</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>Ack- or Reply to Verbal Contact</td>
<td>6%</td>
<td>18%</td>
<td>4%</td>
<td>-</td>
<td>-</td>
<td>9%</td>
</tr>
<tr>
<td>Write Report</td>
<td>2%</td>
<td>4%</td>
<td>9%</td>
<td>-</td>
<td>-</td>
<td>2%</td>
</tr>
<tr>
<td>Originate Letter or Memo</td>
<td>3%</td>
<td>8%</td>
<td>-</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
</tr>
</tbody>
</table>

Note:
1. That is, delegate task of handling the request to a subordinate.
**FIGURE 8: ANALYSIS OF EACH TYPE OF INPUT MAIL**  
Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>PURPOSE OF MAIL</th>
<th>Frequency</th>
<th>% of Total</th>
<th>Senders</th>
<th>Form</th>
<th>% Acted on</th>
<th>Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS: expressing thanks or formal recognition</td>
<td>1.5</td>
<td>5%</td>
<td>Most from variety of outsiders; often peers</td>
<td>All letters and memos</td>
<td>23%</td>
<td>Most acknowledged; some forwarded to subordinates</td>
</tr>
<tr>
<td>STATUS REQUESTS: non-significant requests made because of manager's status</td>
<td>3</td>
<td>12%</td>
<td>Peers, subordinates, independents</td>
<td>Most letters</td>
<td>89%</td>
<td>Sign, reply, forward to subordinates</td>
</tr>
<tr>
<td>SOLICITATIONS: approaches made to sell something to the manager or his organization</td>
<td>1.5</td>
<td>5%</td>
<td>Consultants, trade organizations, suppliers, universities</td>
<td>Letters</td>
<td>67%</td>
<td>Reply, forward to subordinates</td>
</tr>
<tr>
<td>AUTHORITY REQUESTS: requests to have the manager approve or authorize an action</td>
<td>1</td>
<td>5%</td>
<td>Subordinates</td>
<td>Most memos, some copies of letters (i.e., forwarded letters), reports</td>
<td>73%</td>
<td>Most replied to; a few forwarded to subordinates</td>
</tr>
<tr>
<td>REFERENCE DATA: information sent to manager primarily for reference</td>
<td>4</td>
<td>14%</td>
<td>Subordinates, associates, trade organizations</td>
<td>Half reports (most skinned), rest various</td>
<td>18%</td>
<td>Various: forwarded to subordinates, acknowledged, reply</td>
</tr>
<tr>
<td>GENERAL REPORTS: lengthy documents analyzing issues of general interest</td>
<td>2</td>
<td>8%</td>
<td>Subordinates, trade organizations, contacts, etc.</td>
<td>Most reports, rest clippings, books, etc. (most skimmed)</td>
<td>19%</td>
<td>Half forwarded to subordinates, rest acknowledged, reply</td>
</tr>
</tbody>
</table>
### FIGURE 8: ANALYSIS OF EACH TYPE OF INPUT MAIL (CONTINUED)

<table>
<thead>
<tr>
<th>PURPOSE OF MAIL</th>
<th>Frequency #/day</th>
<th>% of Total</th>
<th>Senders</th>
<th>Form</th>
<th>% Acted on</th>
<th>Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>PERIODICAL NEWS:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>periodical literature</td>
<td>4</td>
<td>15%</td>
<td>Most from publishers, some from trade organizations, some commercial newsletters</td>
<td>Periodicals (62% skimmed, 4% studied)</td>
<td>4%</td>
<td>Various: write 3rd party, write to author</td>
</tr>
<tr>
<td>EVENTS: ad hoc information on current happenings</td>
<td>2</td>
<td>8%</td>
<td>Subordinates, trade organizations, variety of personal contacts</td>
<td>Letters, copies of letters, reports (most skimmed, clippings, memos</td>
<td>16%</td>
<td>Forward to subordinates and acknowledge</td>
</tr>
<tr>
<td>REPORTS ON OPERATIONS:</td>
<td></td>
<td></td>
<td>Most from subordinates, some from clients</td>
<td>Most reports (42% skimmed, 15% studied), rest copies of letters, memos, clippings, letters</td>
<td>12%</td>
<td>Half forwarded to subordinates, rest various</td>
</tr>
<tr>
<td>ADVICE ON SITUATIONS:</td>
<td></td>
<td></td>
<td>Most from subordinates, rest from retained experts, peers, etc.</td>
<td>Memos, copies of letters and memos, reports (all read)</td>
<td>16%</td>
<td>Half forwarded to subordinates, half replied to</td>
</tr>
<tr>
<td>IDEAS: unsolicited ideas sent as such</td>
<td>0.7</td>
<td>2%</td>
<td>Subordinates, peers, independents, others</td>
<td>Most letters, some copies of memos, clippings, reports</td>
<td>69%</td>
<td>Acknowledge, forward to subordinates, reply, write third party</td>
</tr>
</tbody>
</table>
### FIGURE 8: ANALYSIS OF EACH TYPE OF INPUT MAIL (CONTINUED)

<table>
<thead>
<tr>
<th>Purpose of Mail</th>
<th>Frequency #/day</th>
<th>% of Total</th>
<th>Senders</th>
<th>Form</th>
<th>% Acted on</th>
<th>Reactions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems and Pressures: correspondence explicitly defining problems or demands for action (i.e., requests of a strategic nature)</td>
<td>0.7</td>
<td>2%</td>
<td>Most from subordinates, rest from clients, charity organizations, supplier, lawyer</td>
<td>Letters, memos, copies of letters and memos</td>
<td>50%</td>
<td>Half forwarded to subordinates, half replied to</td>
</tr>
</tbody>
</table>

**Self-Initiated Correspondence:**
- Output not generated as reaction to input; 25 pieces classified as follows:
  - Acknowledging verbal contact - 7 pieces
  - Writing to retiring employee - 2 pieces
  - Scheduling - 2 pieces
  - Sending information requested verbally - 3 pieces
  - Other correspondence (external board work, formal request to join committee, etc.) - 6 pieces
  - Report (expense account, transcript of telephone conversation with client, report on trip, annual statement of President, meeting docket) - 5 pieces
  - To: Most to subordinates, clients, some to peers, and directors
  - Most letters, some memos and reports
Figure 9: DISTRIBUTION OF INPUT MAIL

Distribution by Purpose

Distribution by Sender

Distribution by Form
Figure 10: DISTRIBUTION OF OUTPUT MAIL

Distribution by Purpose

- Reply to Written Request
- Acknowledge Correspondence
- Write Report
- Obtain or Authorize
- Contact or Question
- Delegate Request to Subordinate
- Forward Information to Subordinate
- Forward Information Sent

Distribution by Target

- Peer
- Subordinate
- Government
- Trade Organization
- Independent Associate
- Director

Distribution by Form

- Memo
- Forwarded Letter
- Forwarded Newspaper Article
- Forwarded Report
The following information is drawn from an analysis of the mail records:

1. **Form of Input:** Of the average of 26 pieces of mail received per day, about 10 came to the managers as direct correspondence — 7 as letters from outsiders and 3 as memos from subordinates. Printed information accounted for another 11 pieces, comprising reports (average of 6.5 per day), periodicals (4 per day), and books (0.3 per day). The remaining five pieces were secondhand information, made up of copies of letters forwarded to the managers (2 per day), copies of memos (2 per day), and clippings from periodicals (1 per day). Most of the forwarded mail came from subordinates.

2. **Attention to Mail:** A small proportion of the mail — only 6% — was studied in depth. Most was processed at normal reading speeds, and about one-third was skimmed.

3. **Senders of Mail:** Mail came from a variety of groups. **Subordinates** accounted for 39%. The organizations maintained a working relationship with a number of groups, including customers, suppliers and business associates (e.g., lawyers, firms being acquired), and trade organizations, and these accounted for another 22% of the managers' input mail. **Peers,** that is, executives of organizations that have no direct relationship with the organization of the manager (e.g., personal contacts, competitors, university executives, co-directors on external boards) originated another 16% of the mail. **Publishers** sent 11%, and **government** people sent another 5%. Another 6% of the mail came from **independents,** people with no relevant organizational affiliation who often had never met the manager and whose mail was usually unsolicited. Included in this category were people seeking employment, students doing research, those...

---

5Includes patients in hospitals and parents in school system.
who wrote because they had seen the manager or his products on television, people seeking free merchandise, and so on. Finally, and perhaps most surprisingly, only 1% of the mail -- in all 7 pieces -- came from directors of the managers' organizations.

4. **Density of Output**: On the average, about 9 pieces of mail left the managers' desks each day. Thus, the managers generated about 1 piece for every 3 received.

5. **Initiation of Output Mail**: An unexpected finding was that 9 out of every 10 pieces of mail sent out were in reaction to pieces of mail received. In other words, the manager initiated without written stimulus only 1 piece of mail for every 26 received. In all, only 25 pieces were initiated in the 5 weeks. Four of the managers initiated only 10 pieces of mail -- an average of 2 per week as compared with 137 received.

6. **Kinds and Targets of Output Mail**: About half of the managers' output mail was in letter form, destined for outsiders. Some of this acknowledged mail that the managers received; the greater part was sent in reply to written (and occasionally verbal) requests received by the managers; and, some of this output was in reply to information that the managers received. Peers received 16% of the output, about the same proportion of mail they sent to the managers, but in absolute terms, only about one-third what they sent. Clients, suppliers and associates, and trade organizations received 15% of the managers' output, again far less than they sent to him. Independents and government people received about the same proportion that they sent. Finally, directors of the organizations, who sent only 7 pieces of mail during the five weeks, received only 5, an average of 1 per week.

The other half of the output mail was destined for the managers' subordinates. Some of this was in the form of memos, but most of it was mail received by the managers and forwarded into their organizations. Forwarded letters accounted for 18% of the output, forwarded memos, 5%, and forwarded documents in printed form (clippings, reports, periodicals, and books),
another 9%. In total, then, 32% of the managers' output consisted of forwarded mail. Three-quarters of this mail was forwarded for purposes of information, often with comments such as, "Would you agree?" Another one-quarter of the forwarded mail consisted of requests received by the managers in the mail and sent to subordinates for purposes of delegation, with comments such as, "Please prepare a reply for my signature." or, "I do not think we should attend." Most of this forwarded mail was received from the outside, although an occasional internal request or piece of information was forwarded from one subordinate to another. In only two cases was forwarded mail sent outside the organization.

The managers wrote only 5 reports (2% of all output), and originated only a few letters and memos without written stimulus (3% of output).

In general, the managers received far more documented information than they generated or forwarded, and their organizations received by virtue of their switching far more documented information from the environments than the environments received from the organizations.

7. **Purposes of Mail**: One piece of input mail in five carried a request, and a much smaller proportion dealt with formal acknowledgements. The rest, 74% of the total input, carried information of varying degrees of importance and urgency. This input mail has been sorted into 12 categories which are described below in points numbered 8 to 19.

8. **Acknowledgements**: Letters formally acknowledging a visit, a favor, some information received, a completed job, and so on, made up 5% of the mail received. It was with outsiders, most often with peers, that this formal correspondence was traded. Some of these acknowledgements were, in turn, acknowledged (e.g., "It is I who should thank you.") and a few were shown (i.e., forwarded) to subordinates.
9. **Status Requests:** One-eighth of the manager's mail brought inconsequential\(^6\) requests made of him because of his position. These were of three types: (a) Peers made half of these requests — for him to speak, to send information, to donate funds, and so on. (b) Letters and reports, prepared for the manager's signature by subordinates, constituted another one-third of this mail. Some of this was done as formality (e.g., Dr. Brown signed all letters offering teaching appointments), some because of the manager's prestige (General Gavin was asked to sign a letter to a client), and, some because of legal restrictions (Dr. Brown signed a statement of expenditures: "I hereby certify under penalties of perjury that the statements set forth in this payroll for $X are true to the best of my knowledge and belief.").

(c) Finally, independents made a number of requests of the managers: Dr. Knowles was asked by a girl who saw him on television to explain why she was having difficulty in becoming a nurse, and President Henshel received a number of requests for free watches.

Surprisingly, the managers reacted to almost all of this mail, and these reactions accounted for nearly one-third of all their output. In a number of cases, the manager simply signed a form or letter; in others he replied, basically with a "yes" or "no" answer (that he will or will not attend, for example); in a few cases, he delegated the work of replying to a subordinate, often with a comment on what action he was to take.

10. **Solicitations:** Similar to status requests were solicitations. One-third of solicitations came from trade organizations, universities, and consultants who requested that the organizations participate in seminars; another third from manufacturers, lawyers, publishers, etc., who attempted to sell products or services; and one-fifth came from people seeking employment. Of the 33 solicitations received, only two were judged to be consequential — an offer to sell a nearby piece of property to the hospital, and

---

\(^6\)"Inconsequential" means that no important information was contained and the issue was unrelated to any strategic decision.
an offer of financing which came on the heels of a discussion calling for just such an arrangement. In these cases the managers reacted frequently (the reactions to solicitations and to status requests, taken together, accounted for a full 40% of the managers' output). Letters were often forwarded to subordinates, usually for their information rather than for purposes of delegation.

11. **Authority Requests:** An average of once per day, the managers received a written authority request from a subordinate (a) seeking authorization for an exception to normal operating procedures (e.g., to show a client an internal report, to change the time of a weekly meeting, to allow a teacher to take a leave of absence), (b) seeking approval for a new program or procedure (e.g., to approve a new job description, new industrial relations policy manual, new pay scale), or (c) seeking acceptance for a decision or report, usually associated with a resource or policy commitment (e.g., to give the go-ahead on construction, to bring in a consultant, to provide more space for a department, to approve a draft of an annual report). In essence, the manager was presented with one alternative, and was asked to give a "yes" or "no" answer. As would be expected, most of these received replies, half containing immediate affirmations.

12. **Reference Data:** A large proportion of mail — one piece in 7 — contained information which was to be used for reference only. (a) Some came from the organization; for example, meeting agendas, minutes of meetings that the manager attended, resumes of new employees, lists of holidays. (b) Another large group comes from outside organizations, as information that the organization should have had; for example, annual reports of clients, address changes, government policies on security, statements of industrial policy by trade organizations. (c) Finally, trade organizations and external boards of directors sent correspondence concerning scheduling arrangements. This reference mail received cursory attention; much of it was skimmed, and only one-fifth stimulated a response.
13. **General Reports:** Each day, an average of 2 reports, clippings, or books of general interest crossed the managers' desks. (a) More than one-third of these come from subordinates and were related to topics in which the manager had expressed an interest. In effect, the manager, intentionally or unintentionally, had left a message in the organization that he wished to see any available information on these topics. For example, shortly after General Gavin had stopped by the office of a subordinate and had commented on the technology gap, this subordinate sent him a clipping from *Time* magazine on the subject. President O'Keefe's strong interest in nuclear testing explained why he received an article on Swedish attempts to clean the hydrogen bomb.

(b) The remaining two-thirds of the general reports were received without direct or indirect solicitation. They came either as internal reports which a subordinate felt the manager should have seen, or as external reports which an outsider felt the manager or his organization should have had. These included a clipping about a company on whose board the manager sat, a report on the client-consultant relationship from a trade organization, a report on nursing wages from a trade organization, and a report on optimum advertising expenditures from a trade organization.

About half of this information was skimmed, and 19% was studied in depth. One piece in 5 elicited a reaction; most often, information was forwarded to a subordinate.

14. **Periodical News:** A large amount of mail consisted of periodical literature, in the form of magazines and of commercial newsletters from trade organizations and private services. These were classified as: (a) general news (e.g., *New York Times*), (b) management journals and newsletters (e.g., *AMA Management Review*), (c) trade journals and newsletters (e.g., *Massachusetts Hospital Association Newsletter, Nucleonics Week*), (d) business and financial news (e.g., *Wall Street Journal*), (e) political news (e.g., *Washington Reports*), (f) technological journals (e.g.,
Journal of Public Health, Science), and (g) house organs. These were handled in an almost ritual manner — very few were studied, two-thirds were skimmed, and despite the fact that an average of 20 of these crossed the desk each week, action was taken on only 4 of the 102 received during the five weeks.

15. Events: Subordinates, trade organizations, and a variety of personal contacts dispatched about 2 pieces of mail daily designed to keep the managers informed of events in their environments. (a) Some of this mail related the organization to its environment (e.g., a clipping of an article mentioning the organization). (b) Some noted upcoming events at the trade organizations. (c) Another large group referred to personal contacts (e.g., notice of a friend receiving a new appointment), competitors (e.g., a clipping discussing research finding of competitor, letter from trade organization announcing unionization of a hospital), or clients (e.g., letter on progress of newly-formed client). (d) A final group informed the manager of political events (e.g., report on State delegation to Washington). As the examples indicate, this information came in a variety of forms, as direct letters and memos, as letters forwarded by subordinates, and as reports and clippings. Some of the information was forwarded to subordinates.

16. Reports on Operations: Mail relating to the operations of the managers' organizations accounted for 18% of the total input. (a) Regular internal reports averaged 2 per day (e.g., annual report of company's medical center, transcript of accounts, in- and out-patient costs, Neilson ratings on television show, U.K. sales report).

(b) Ad hoc reports on specific programs averaged almost 3 per day (e.g., progress on client contact, action taken on legal suit, draft of acquisition agreement, progress on community health center, notice of delay in delivery of new watch, report on development of new social studies unit).

(c) It was common, as well, for the manager to receive unsolicited letters from clients and independents commenting on service (e.g., praise for a consulting report, complaint about a salesman, reaction to a television advertisement, report that a watch lost in the garden many years
ago and recently found still works). Although much of this last type of correspondence was addressed simply to "The President", it was read faithfully.

Reports on operations received varying degrees of attention — a few were studied, most were read or skimmed. Surprisingly, of the 40 routine operating reports received, in only 2 cases did the manager react to something he read. Ad hoc reports on progress elicited somewhat more frequent response (7 out of 65), as did client comments (4 out of 11). The response usually was a forwarding of the information to a subordinate, or an acknowledgement.

17. Advice on Situations: Subordinates and, to some extent, retained experts, were used by the managers to give advice on current, and usually strategic, situations. The advice often included background data resulting from an investigation, a listing of alternatives, an analysis, and specific recommendations. Examples were: a memo on the desire of a firm to affiliate, with the comment, "I conclude that there appears to be no ready avenue for [our] participation."; a report on a joint venture in a foreign country; a legal opinion regarding financing arrangements; a list of possible consultants for a study; a comment on a man's résumé; a report on the costs of keeping playgrounds open in the summertime; some ideas for the design of a new school. This mail was treated carefully — all reports were read, and most of the information was used in strategy-making meetings.

18. Problems and Pressures: An infrequent but important type of mail was the correspondence that carried information related to clearly-defined problems, demands, and pressures. These came from subordinates, and from outside associates — clients, suppliers, and so on. The manager reacted frequently, replying or forwarding the correspondence to a subordinate. The examples were varied: a charity organization asking why the firm did not make a donation; a notice of a new British law requiring disclosure of finances with a comment on the difficulties it created; a notice of an employee conflict; a change demanded by a client in work done; a complaint from the librarian about stolen
periodicals; a petition from department heads requesting creation of a new committee; a clipping of a competitor advertisement with a letter noting infringement of copyright; a request by a parent to redistrict so that his children can attend school closer to home.

19. **Ideas**: Occasionally -- on the average of twice each week -- a letter containing an unsolicited idea reached the managers' desks. Some of these came from subordinates, others from personal contacts, still others from independents hoping their ideas would receive consideration. These ideas were not ignored -- most were acknowledged or replied to, or were forwarded to the appropriate person. In one case, a letter came from a friend of General Gavin's advising him of the opportunity for a consulting contract in a large school system; in another case, a consultant gave President O'Keefe information on a possible acquisition. A hospital trustee advised Dr. Knowles of a man who wished to join the staff; President Henshel was informed of a new clock invention, and a customer sent him an idea for the redesign of a watch; Dr. Brown received a teacher's suggestions for improvement.

20. **Self-Initiated Mail**: Finally, only once per day on the average, the manager initiated a piece of mail. More often than not, it was an inconsequential one -- acknowledging a visit, a presentation, or a verbal request, or scheduling an appointment. The more important, self-initiated mail was designed to (a) pressure a subordinate to complete overdue work, (b) inform directors with a meeting docket or the annual statement of the chief executive, and (c) inform subordinates of the events of a recent trip.

The flow of documented information is summarized in Figure 11.
Figure 11: FLOW OF DOCUMENTED INFORMATION

---represents less dense flow

THE ORGANIZATION

MANAGER

status and authority requests

reports on operations

reference data

general reports

events

advice on situations

problems, pressures

ideas

acknowledge-ments or replies

acknowledge-ments

news

events

problems, pressures

advice on situations

status requests

solicits

reports

reference data

suppliers

peers

government officials

trade organizations

publishers

associates

directors

clients

independents
4.3 The Contact Record: Nature of Verbal Interaction

Each distinct verbal contact that the manager made (with the exception of those with his secretary) was individually described in the contact record. During the five weeks of observation, 368 distinct verbal contacts were made. The tables in Figures 12 and 13 and the diagrams in Figures 14 - 17 present the data of the contact records. At the end of this section, Figure 18 contains a diagram which summarizes the nature of the manager's verbal interactions.

Figures 12 to 17 follow:

7Note that contacts have been classified throughout according to (1) their frequency, and (2) the time they consumed. Thus, it is possible to record, for example, the number of contacts with subordinates as well as the time taken by contacts with subordinates. Mail could only be analyzed in terms of frequency.
**FIGURE 12: ANALYSIS OF THE CONTACT RECORD**
Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>Category</th>
<th>Total</th>
<th>Gavin</th>
<th>O’Keefe</th>
<th>Knowles</th>
<th>Mensehel</th>
<th>Brown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Time in Verbal Contact</td>
<td>158 hours</td>
<td>17</td>
<td>28</td>
<td>37</td>
<td>42</td>
<td>34</td>
</tr>
<tr>
<td>Total No. of Verbal Contacts</td>
<td>368</td>
<td>65</td>
<td>55</td>
<td>71</td>
<td>106</td>
<td>71</td>
</tr>
<tr>
<td>Media: Proportion of Contacts/Proportion of Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Telephone Calls</td>
<td>36%/8%</td>
<td>42/14</td>
<td>549/12</td>
<td>42/8</td>
<td>21/5</td>
<td>38/7</td>
</tr>
<tr>
<td>Scheduled Meetings</td>
<td>29%/76%</td>
<td>25/60</td>
<td>25/75</td>
<td>38/79</td>
<td>17/69</td>
<td>42/88</td>
</tr>
<tr>
<td>Unscheduled Meetings</td>
<td>27%/13%</td>
<td>15/10</td>
<td>25/13</td>
<td>14/11</td>
<td>52/23</td>
<td>17/4</td>
</tr>
<tr>
<td>Tours</td>
<td>8%/3%</td>
<td>18/16</td>
<td>-/ -</td>
<td>6/1</td>
<td>11/4</td>
<td>3/1</td>
</tr>
</tbody>
</table>

Size of: Scheduled Meetings/Unscheduled Meetings/Tours^2

<table>
<thead>
<tr>
<th>Proportion with</th>
<th>2 people</th>
<th>49%/92%/77%</th>
<th>37/100/67</th>
<th>29/93/-</th>
<th>61/100/67</th>
<th>28/88/89</th>
<th>48/100/100</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion with</td>
<td>3 people</td>
<td>14%/4%/12%</td>
<td>25/-/25</td>
<td>14/-/-</td>
<td>-/-/-</td>
<td>22/4/-</td>
<td>11/-/-</td>
</tr>
<tr>
<td>Proportion with</td>
<td>4 people</td>
<td>9%/3%/4%</td>
<td>13/-/-</td>
<td>14/7/-</td>
<td>4/-/-</td>
<td>11/3/-</td>
<td>7/-/-</td>
</tr>
<tr>
<td>More than 4 people</td>
<td>34%/12%/8%</td>
<td>25/-/-</td>
<td>43/-/-</td>
<td>32/-/-</td>
<td>33/9/-</td>
<td>23/-/-</td>
<td></td>
</tr>
</tbody>
</table>

Participates: Proportion of Contacts/Proportion of Time

| Subordinate | 64%/48% | 66/60 | 59/34 | 54/50 | 77/39 | 65/61 |
| Director | 62%/7% | 6/2 | 4/5 | 14/10 | 4/- | 11/17 |
| Co-director | 5%/5% | 9/19 | 14/12 | 3/3 | 1/0.2 | 1/0.3 |
| Peer and Trade Org. | 3%/11% | -/- | -/- | -/- | -/- | -/- |
| Client | 2%/3% | 8/9 | 8/- | -/- | -/- | 6/10 |
| Supplier & Associate | 9%/17% | 8/6 | 20/48 | 1/0.3 | 9/24 | 10/9 |
| Independent & Other | 9%/8% | 3/3 | 4/- | 1/8 | 12/21 | 4/2 |

Form of Initiation: Proportion of Total Contacts

| Manager | 32% | 52 | 25 | 27 | 27 | 30 |
| Opposite Party | 57% | 43 | 66 | 58 | 64 | 52 |
| Mutual | 5% | 2 | 5 | - | 6 | 10 |
| Clock | 7% | 3 | 4 | 15 | 3 | 8 |

Location: Proportion of Contacts/Proportion of Time

| Manager’s Office | 75%/39% | 37/39 | 86/38 | 66/41 | 75/38 | 85/67 |
| Office of Subordinate | 10%/8% | 22/18 | 11/11 | 8/6 | 10/9 | 1/0.3 |
| Hall or Plant | 3%/1% | 3/3 | 2/1 | 1/1 | 4/1 | -/ |
| Conference or Board Rm. | 3%/14% | 3/19 | 5/28 | 8/16 | 4/10 | 1/4 |
| Away from Organization | 8%/38% | 5/21 | 7/23 | 10/36 | 8/43 | 13/48 |

Purpose of Contact: Proportion of Contacts/Proportion of Time

| Organizational Work | 3%/ 2% | 2/17 | -/- | -/- | -/- | -/- |
| Scheduling | 15%/ 3% | 14/ 5 | 18/ 3 | 12/ 1 | 22/ 4 | 11/ 1 |
| Ceremony | 6%/12% | 9/12 | -/- | 4/5 | 5/15 | 10/25 |
| External Board Work | 2%/ 5% | 5/19 | 1/13 | 1/3 | -/- | -/- |
| Total Secondary | 32%/21% | 31/33 | 25/16 | 17/9 | 27/19 | 21/16 |
| Status Req. & Solic. | 3%/ 1% | 5/3 | 4/1 | 11/2 | 3/0.5 | 41/1 |
| Action Requests | 17%/12% | 8/3 | 20/9 | 25/22 | 13/ 5 | 20/16 |
| Manager Requests | 12%/ 5% | 12/7 | 11/3 | 10/6 | 14/9 | 10/2 |
| Total Requests | 4%/ 3% | 28/18 | 37/13 | 35/10 | 30/15 | 34/19 |
| Observational Tours | 2%/ 1% | 6/4 | -/- | 7/0 | 3/1 | -7 |
| Receiving Information | 14%/16% | 9/4 | 7/5 | 10/22 | 24/29 | 11/7 |
| Giving Information | 10%/ 8% | 14/8 | 9/3 | 14/13 | 4/5 | 13/9 |
| Review | 10%/16% | 11/10 | 5/3 | 13/25 | 10/22 | 8/11 |
| Total Information | 36%/40% | 40/36 | 37/11 | 41/57 | 32/27 |
| Strategy | 6%/13% | 3/8 | 13/24 | 1/2 | 3/8 | 10/22 |
| Negotiation | 17% | 8% | 5/6 | -/- | -/- | 3/5 |
| Total Decision-making | 72%/21% | 72/60 | 1/2 | 3/8 | 13/27 |

Notes:
1. This means 36% of all verbal contacts and 8% of all time in verbal contact were spent on the telephone.
2. All telephone calls involved 2 people.
3. Most involved more than eight people.
4. Includes one seven hour conference.
5. Includes a number of year-end dinners.
# Figure 13: Analysis of Each Type of Contact

Based on Five Weeks of Observation

<table>
<thead>
<tr>
<th>Purpose of Contact</th>
<th>Frequency</th>
<th>Average Duration</th>
<th>% of Cont.</th>
<th>Participants</th>
<th>Medium</th>
<th>Initiation</th>
<th>Location of Manager</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizational Work; only one case — see text</td>
<td></td>
<td></td>
<td>2%</td>
<td>Most contacts with subordinates, some with peers</td>
<td>Telephone calls and unscheduled meetings</td>
<td>Most by opposite party, some by manager</td>
<td>Most in manager's office</td>
</tr>
<tr>
<td>Scheduling: means of coordinating efforts by making time arrangements</td>
<td>2</td>
<td>4</td>
<td>3%</td>
<td>Half with subs., rest with clients, associates, peers</td>
<td>Most large, scheduled meetings</td>
<td>Subs., and clock</td>
<td>Manager's office, and special external loc.</td>
</tr>
<tr>
<td>Ceremony: formal activity, ostensibly involving no decision-making or information flow</td>
<td>1</td>
<td>53</td>
<td>12%</td>
<td>Peers (codirectors)</td>
<td>Board meetings, telephone calls</td>
<td>Various</td>
<td>Calls in manager's office, meetings away</td>
</tr>
<tr>
<td>External Board Work: contacts associated with outside boards on which manager sits</td>
<td>0.3</td>
<td>50</td>
<td>5%</td>
<td>Most variety including peers, suppliers, clients, associates, independent-ents, directors, etc.</td>
<td>Most telephone calls</td>
<td>All by opposite party</td>
<td>All in manager's office</td>
</tr>
<tr>
<td>Status Requests and Solicitations: non-significant requests made of the manager because of his status, or to sell something to the organization</td>
<td>1</td>
<td>7</td>
<td>12%</td>
<td>Most subordinates, rest clients, directors, peers, etc.</td>
<td>Most telephone calls and unscheduled mtgs., small sch meetings</td>
<td>Usually the opposite party</td>
<td>Most in mgr's office, rest in subordinate's office</td>
</tr>
<tr>
<td>Action Requests: requests that the manager take some action on matter of consequence (request for authorization or for information; request that manager initiate something; attempt to pressure manager with regard to upcoming decision)</td>
<td>2.5</td>
<td>18</td>
<td>12%</td>
<td>Most subordinates, rest clients, directors, peers, etc.</td>
<td>Most telephone calls and unscheduled meetings</td>
<td>Usually the opposite party</td>
<td>Most in mgr's office, rest in subordinate's office</td>
</tr>
<tr>
<td>PURPOSE OF CONTACT</td>
<td>Frequency #/day</td>
<td>Average Duration Minutes</td>
<td>% of Time</td>
<td>Participants</td>
<td>Medium</td>
<td>Initiation</td>
<td>Location of Manager</td>
</tr>
<tr>
<td>-------------------</td>
<td>----------------</td>
<td>--------------------------</td>
<td>-----------</td>
<td>--------------</td>
<td>--------</td>
<td>------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>MANAGER REQUESTS: requests that the manager makes of others (requests for information or advice; delegation of task; follow up on earlier request)</td>
<td>2</td>
<td>11</td>
<td>5%</td>
<td>Most subordinates</td>
<td>Half telephone calls, rest distributed between other 3 media</td>
<td>Manager</td>
<td>Most in manager's office, rest in subordinate's office</td>
</tr>
<tr>
<td>OBSERVATIONAL TOURS: walks about the organization for no specific purpose other than to observe activity or greet those who pass by</td>
<td>0.3</td>
<td>9</td>
<td>1%</td>
<td>Most subordinates, some visiting clients, etc.</td>
<td>Tours</td>
<td>Manager, unless subordinate has invited manager to see something</td>
<td>Office of subordinate, hall plant</td>
</tr>
<tr>
<td>RECEIVING INFORMATION: one-way flow of information to the manager</td>
<td>2</td>
<td>30</td>
<td>16%</td>
<td>Most with subordinates, few with directors, rest various (2 conferences included)</td>
<td>More than half unsch. mtgs., rest telephone calls and sch. meetings</td>
<td>Most by opposite party</td>
<td>Most in manager's office, rest in conference or board room</td>
</tr>
<tr>
<td>GIVING INFORMATION: one-way flow of information from the manager</td>
<td>1.5</td>
<td>20</td>
<td>8%</td>
<td>Most with subordinates, rest with associate, director, client government, etc.</td>
<td>Half telephone calls, rest small meetings and tours</td>
<td>Most by manager</td>
<td>Most in manager's office, rest in conference or board room, various places</td>
</tr>
<tr>
<td>PURPOSE OF CONTACT</td>
<td>Frequency #/day</td>
<td>Average Duration Minutes</td>
<td>% of Cont. Time</td>
<td>Participants</td>
<td>Medium</td>
<td>Initiation</td>
<td>Location of Manager</td>
</tr>
<tr>
<td>--------------------</td>
<td>----------------</td>
<td>--------------------------</td>
<td>-----------------</td>
<td>--------------</td>
<td>--------</td>
<td>-----------</td>
<td>-------------------</td>
</tr>
<tr>
<td>EVIEWS: wide variety of purposes; primarily two-way flow of information; some requesting, etc.</td>
<td>1.5</td>
<td>40</td>
<td>16%</td>
<td>Most with subs., rest with directors, peers, associates, suppliers</td>
<td>Half sch. meetings, most with 2 people, some with many, one-third unsch. meetings, few telephone calls and tours</td>
<td>Evenly distributed between manager, opposite party, mutual, clock</td>
<td>Half in mgr's office, remainder in various places</td>
</tr>
<tr>
<td>STRATEGIC: development, evaluation, and/or choice of alternatives with regard to important decision-making situations</td>
<td>1</td>
<td>55</td>
<td>13%</td>
<td>Most with subs., some with directors, and associates (e.g., underwriters)</td>
<td>Most sch. mtgs. with 4-8 people, some unsch. mtgs., one on telephone, one on tour</td>
<td>Most by subs. or mutual, some by clock or manager</td>
<td>Half in own office, rest in sub's office, board room, hall, outside location</td>
</tr>
<tr>
<td>NEGOTIATION: bargaining to reach inter- organizational agreement</td>
<td>0.2</td>
<td>138</td>
<td>8%</td>
<td>Suppliers, associates (subs. usually present)</td>
<td>All sch. mtgs., most with at least 3 people</td>
<td>Various</td>
<td>Various</td>
</tr>
</tbody>
</table>

FIGURE 13: ANALYSIS OF EACH TYPE OF CONTACT (CONTINUED)
Based on Five Weeks of Observation
Figure 14: DISTRIBUTION OF NUMBER OF VERBAL CONTACTS
BY NUMBER OF PARTICIPANTS

Scheduled Meetings

Unscheduled Meetings

Tours

Averages for 5 weeks of observation
Figure 15: DISTRIBUTION OF VERBAL CONTACTS
BY NATURE OF PARTICIPANTS AND FORM OF INITIATION

Distribution of Hours by Participant

Distribution of Number of Contacts by Participant

Distribution of Number of Contacts by Form of Initiation
Figure 16: DISTRIBUTION OF VERBAL CONTACTS
BY LOCATION

Distribution of Hours in Verbal Contact

Averages for 5 weeks of observation

Distribution of Number of Verbal Contacts
Figure 17: DISTRIBUTION OF VERBAL CONTACTS
BY PURPOSE

Distribution of Hours in Verbal Contact

Distribution of Number of Verbal Contacts

averages for 5 weeks of observation
The following information is drawn from an analysis of the contact records:

1. Distribution of Contacts and Contact Time: Purely verbal contacts—i.e., telephone calls—accounted for just over one-third of the total number of contacts, but only 8% of the total time the managers spent interacting with people. The other 64% of the managers' contacts were face-to-face. While scheduled meetings accounted for only 29% of contacts, they took a full 76% of the managers' time in contact with people. Putting this another way, scheduled meetings were relatively long-lasting contacts. Unscheduled meetings took 13% of the time but 27% of the contacts, while tours took 8% of the contacts and 3% of the contact time.

2. Number of Participants: Almost all unscheduled meetings involved just one other participant, as did 3 out of 4 tours. In contrast, less than half the scheduled meetings involved just two participants, and many involved between 8 and 30 participants.

3. Kinds of Participants: The manager spent half his contact time with subordinates, but they accounted for two-thirds of the contacts. In other words, contacts with subordinates tended to be shorter than contacts with other people. The rest of the contacts were distributed among a number of groups—clients, suppliers, associates (underwriters, firms being acquired, overseas affiliates, municipal groups dealing with the school system, etc.), peers, trade organizations, directors, co-directors, independents, and others. Suppliers and associates took 17% of the contact time, peers 11%, and directors 7%. Peers, trade organizations, and suppliers and associates tended to have the longest contacts.

4. Initiation of Contacts: Only one-third of the contacts were ostensibly initiated by the manager; another 57% were initiated by the opposite party; 5% were initiated mutually (e.g., the 2 men met in the hall, or a follow-up meeting was scheduled at the conclusion of a meeting); and, in only 7% of
the cases was a meeting held on a regular or
clocked basis (e.g., staff meeting every Friday
at 10 AM, a meeting with certain directors that
always preceded the board meeting, a retirement
dinner).

5. Location of Contacts: Three out of 4 contacts
took place in the managers' own offices, and these
averaged 10 minutes duration. A great change took
place when the managers left the confines of their
offices. The average duration of a contact in-
creased to 62 minutes. Thus, only 25% of the
contacts took place outside the office, yet they
accounted for 61% of the managers' time in verbal
contact. With desk work included, the managers
spent about half (47%) of their total working
time outside their offices.

6. Location Outside the Office: When they were
outside their offices, the managers spent 13% of
their time in offices of subordinates, 2% in the
halls or plants of their organizations, and 23%
in their organizations' conference and board rooms.
The remaining 61% of the managers' contact time
outside their own offices was spent away from
their organizations, in meetings at other organiza-
tions, at their homes, in restaurants, at conferences,
at funerals, and so on. Scheduled meetings in
conference and board rooms and those away from
the organization averaged 2 hours duration, as compared
to one-half hour for those scheduled in the
managers' offices.

7. Purposes of Contacts: The managers spent 21%
of their time in what may be termed work of secondary
importance. Requests took another 18% of their
time; 13% of these were requests made of the
managers, and 5% were requests made by the managers.
Another 40% of their time was spent strictly getting
and giving information, while 21% was taken by
important decision-making activity. A study of
contact frequency revealed that requests were more
frequent than their time allotment would indicate,
while decision-making tasks were less frequent.
Thus, the request contacts were, on the average,
of short duration, and the decision-making contacts,
of long duration. All this managerial activity of
a verbal nature has been sorted into 13 categories,
which are described below in points numbered 8 to 20.
8. Non-Managerial Work: In only one case did a manager undertake the non-managerial, specialized work of his organization, and even in this case it was his managerial skill that caused the manager to become involved. General Gavin was asked to "role play" director of a company to which an Arthur D. Little, Inc., report was submitted for preliminary review. The work was part of a consulting contract; General Gavin's time was billed to the client; and, although he was acting as manager, General Gavin was actually performing as consultant.

9. Scheduling: Brief, informal contacts (i.e., telephone calls or unscheduled meetings) for purposes of scheduling time were frequent. Most were conducted with subordinates, less than half were initiated by the managers, and most took place while the managers were at their desks.

10. Ceremony: One-eighth of the managers' time was consumed by ceremonial events that were usually scheduled, populous, and time-consuming. The examples of these were many and varied: dropping in to greet a new employee or saying farewell to a departing teacher, hosting visiting clients, presenting a plaque to a retiring employee, speaking to a group visiting the hospital, attending the funeral of an employee's brother, attending the dinner of the secretary's honorary society, attending the year-end dinner of a department.

A majority of these meetings were with subordinates; the rest were with various outsiders. Most were arranged by subordinates, and the others, such as retirements and funerals, were scheduled by the clock. These meetings usually took the manager away from his office to specially designated locations.

11. External Board Work: The managers were involved to a limited extent in the work of the boards of directors of other organizations. In addition to actual board meetings, there were occasional contacts with co-directors on issues facing the boards. This work was infrequent, but of long duration, and generally took the manager from his office and gave him the opportunity of interacting with his peers. Once they had made the initial decision to join a board, the managers had little control over the scheduling of their time devoted to external board work.
12. **Status Requests and Solicitations:** On the average of almost once per day, the managers were approached, usually via the telephone, by peers, suppliers, or other outsiders who wished to make inconsequential requests of them. Related largely to their status, these requests included invitations to speak at or attend some function, to join boards, to send documents, and to make contacts, and also included simple solicitations. Dr. Knowles received a few telephone calls from personal and professional associates asking that friends in the hospital be given special care. In one interesting case, a man set up an appointment with the chief executive by telling his secretary he was "an old friend," and then attempted to sell him soap to wash the floors of his organization.

13. **Action Requests:** Far more important, frequent, and time-consuming were the "action" requests of various types made of the manager: (a) One-third were requests by subordinates for authorization—that the manager approve a new program or policy, or an exception to an existing policy. For example, President Henshel was told about a sales plan for one product line and was asked to give a go-ahead; Dr. Brown was approached by a teacher who was applying for Fulbright funds and needed the official sponsorship of his school system: "They said the next step is to see you, to see if we can garner your support."

(b) Another 42% of these requests were for information: (i) current information to which the manager had access, (ii) special organizational information, such as plans, policies, or costs, (iii) opinions (i.e., values), or (iv) advice on personal problems. In one case, an executive telephoned President O'Keefe to find out what occurred at a meeting that he had left one-half hour early. President Henshel was asked by a subordinate if there were plans to move him to another department, and Dr. Brown was quizzed about his views on the school system newspaper.

(c) In another 10% of the cases, the managers were asked to initiate something. Could Dr. Knowles make a certain point at the Ladies Auxiliary meeting; could General Gavin write a letter of commendation to a department?
(d) Finally, 18% of the requests consisted of *influencing pressures* -- attempts to influence the manager with regard to pending or resolved decisions. Related to a vacancy in EG&G, President O'Keefe received a number of telephone calls from various employees who made suggestions and requests (e.g., "appoint a local man"). In one case, to be discussed in detail at a later point, a chief executive was told by a subordinate member of his organization that unless that man's immediate superior (a high-ranking executive) was replaced, there would be a mass walkout in his department. Dr. Brown received a parent who wished to complain about a teacher, and two principals who wished to complain about an overlooked promotion.

These requests often came in the form of telephone calls and unscheduled meetings; they took an average of 18 minutes, and consumed one-eighth of the managers' contact time.

14. **Manager Requests**: In 12% of their contacts, the managers made requests of the opposite parties. Thus, the managers made about half as many requests as others made of them, and they made these requests quickly -- they averaged 11 minutes duration. Manager requests were of three types:

(a) Half the time, subordinates were asked for information or advice -- "Can you use an engineer, a friend of mine, who is out of work?"; "Do you know anything about the advertising display in Geneva?"; "Is Harvey an acceptable replacement during your absence?"

(b) In another 40% of the cases, the manager asked an aide to take action on an issue or idea of current interest (i.e., the manager *delegated* a task). In one lengthy meeting, a foreign associate was asked to begin negotiations on the acquisition of a supplier; President Henshel asked an assistant to investigate a promotional idea on antique clocks that he had been considering.

(c) The remaining manager requests were *follow-ups* on previous requests -- "I was thinking about the lead; I wonder if we shouldn't follow it up more aggressively."

The managers used the telephone for half of their requests, but also made frequent use of tours, and scheduled and unscheduled meetings.
15. Observational Tours: Occasionally, the manager left his office for brief periods of time, to greet someone in the hall, to see something of interest, or just to tour his organization. President Hensnel got up to greet an "old family friend" who passed by, and General Gavin took a number of walks to various parts of the organization to keep himself informed of general activity there.

16. Receiving Information: Many of the managers' tasks, taking 16% of their total contact time, were devoted strictly to the receiving of information of various kinds.8 (a) More than one-third of this was instant communication9 -- very current information rushed to the manager by telephone or unscheduled meeting while it was still "hot". At Bulova, the Assistant Treasurer came into President Hensnel's office: "Bulova is 25 [on the stock market]." In another case, a deputy10 rushed into the manager's office and declared: "Harry Jamison will call...Elmwood man...feels that Mr. Flagdale was forced out...wished to object...wants a hearing."11

Many of these "instant communication" interactions did not bring widely known, well-defined or factual information; rather the information often took the form of gossip, hearsay, and opinion. The following encounter was typical: An executive came into the chief executive's office commenting, "I don't like to bear rumours but... Larry Holmes just got back last night and he spent the night with Tremblay." This type of information flow appeared to be rather important, and is discussed at length in later chapters.

---

8In addition to those contacts where special information was received or given, note that most scheduled meetings began with the informal trading of information. See Section 4.6.

9Dr. Knowles used this term.

10See point 18 for a description of the term "deputy".

11In this case, as in certain others, names and positions are disguised.
(b) Another 28% of these informational sessions took the form of briefings, usually at scheduled meetings and usually by subordinates or hired experts, such as consultants. The managers were briefed on analyses and given advice on special situations. The Chairman of EG&G went over some acquisition figures with President O'Keefe; the executive staff of Bulova attended a presentation by a market research consultant on consumer reactions to its products; Dr. Brown was briefed on an analysis related to keeping gymnasium facilities open.

(c) In the remaining cases, the managers obtained information by interviewing prospective employees, by attending conferences, and by listening to advice and to various comments of subordinates.

17. Giving Information: The managers spent 8% of their time in contacts where they simply gave information to the opposite party. Half as much time was spent here as was spent in contacts where the managers simply received information, and the former averaged 20 minutes' duration as contrasted with 30 minutes for "receiving information" sessions. "Giving information" sessions may be categorized as follows:

(a) The largest group, taking 43% of contact time, involved the passing of instant communication from the manager to the opposite party. For example, General Gavin went to a staffer's office to tell him about some information he had received at a board meeting about a possible contract. In the case of the manager who was asked to replace a high-ranking executive, the manager quickly found his deputy to tell him of the situation, and also called a director of the organization for the same purpose.

The balance of the information given verbally by the manager divided approximately equally between (b) plans and policies (e.g., President Henshel telling a meeting of salesmen about a sales policy that will be enforced), (c) advice (e.g., President O'Keefe advising a subordinate how to handle an acquisition negotiation), and (d) various other kinds (e.g., General Gavin telling about a trip abroad). Much of this verbal output was directed at subordinates, although associates,
directors, and various others received a share. This informing was frequently undertaken on the managers' own initiatives, in their own offices, and on the telephone in half the cases.

18. **Review**: In all, 16% of the managers' time was taken by review sessions — contacts characterized by the discussion of a wide range of issues and by a clear, two-way process of information flow. Review sessions tended to be long, averaging 40 minutes' duration, and were frequently initiated by the clock. About half occurred in the managers' offices. Six distinct types seemed to recur:

(a) One-third were called **deputy reviews**. Certain close subordinates met with the chief executive periodically to discuss many issues that both felt were current and important. In the words of one of the participants, they met "to clean the slate" or to check if there was "anything on the griddle". These sessions generally occurred regularly or after a prolonged absence of one party.

Usually one subordinate was implicitly designated by the manager as his deputy — the man with whom all important events and problems could be discussed, against whom all possible strategies could be tested, and from whom much important "instant communication", especially related to the workings of the organization, could be received. At Arthur D. Little, the President clearly played this role for Chairman Gavin, while at the Hospital, Dr. Knowles met regularly with one high-ranking, non-medical executive. President Hensel met very frequently with two of his Vice Presidents and with his Assistant, but it was clear from the nature of these sessions that one man, the Legal Vice President, was the deputy. Most meetings with him tended to be open-ended and general (i.e., review sessions), while a meeting with one of the others tended to have one specific purpose (e.g., making a request, giving information, receiving information).

Deputy review sessions, while regularly held, were seldom explicitly scheduled, and took place in the office of either participant.
In one of these sessions, Dr. McMahon, the President of Arthur D. Little, began by informing General Gavin of a meeting he had had; Dr. McMahon then gave his views on the type of planning function he thought the organization should have, ending with a recommendation that the subject be put on the agenda of an upcoming meeting; General Gavin concurred; mention was made of negotiations on a foreign joint venture, and then the men discussed certain scheduling arrangements; General Gavin showed the President a copy of a letter of praise from a client, and then the discussion returned to the foreign venture; General Gavin asked if Dr. McMahon thought the return-on-investment might be higher than predicted, and Dr. McMahon commented that he thought not but that the venture would be an effective means of developing contacts in that part of the world; the discussion then turned to the Fulbright hearings, the Chairman expressing his concern to the President, and the latter giving advice.

In one deputy review session, Dr. Brown and an executive discussed fully 15 distinct issues in the 18 minutes that the meeting lasted.

(b) Over one-third of the review sessions fell under a second heading, functional review. These sessions usually involved a large number of people at scheduled meetings, and were used to review one functional area of the organization's operations. For example, the Massachusetts General Hospital had a number of special weekly staff meetings, and at Bulova, the visit of the new IBM representative was taken as an opportunity to review various aspects of the data processing operation.

In general, these sessions involved a wide variety of activity — information flowed to and from the manager, requests were made of him to give authorization or to express value judgments, work was delegated by the manager, and strategic decisions were made. In fact, these sessions often combined many of the purposes of contacts discussed in the previous and following points, although "receiving" and "giving" information tended to predominate.

(c) Three other kinds of review sessions were held, although less frequently. During contact review, the manager met with a personal contact — an old employee, a peer, a competitor —
usually in a social environment, to discuss the events and the problems of the trade. One chief executive commented before one of these meetings: "We'll trade rumours."

(d) When a man joins a new organization, he accumulates a large number of questions on organizational procedures, special arrangements that he requires, and so on. In the new-man reviews, the chief executives met with new, high-ranking subordinates to clear up these questions and decide on the requests for special attention. In addition, they discussed the problems and future of the department that the new man would run.

(e) Post-meeting review sessions brought the manager and another participant, usually a deputy, together, often for only moments, to review the events of the meeting. Such sessions often turned into deputy reviews when other topics were discussed.

(f) Finally, 6% of the review sessions were in the form of organizational board meetings. These were large meetings, held in the board room, and usually scheduled on a clocked basis. It appeared that the meetings followed a fairly well-defined pattern: First, the chief executive presented his report, which might have included current information (e.g., correspondence), a report on the outlook for the organization, and briefings on results of operations and particular programs. The chief executive then requested a number of formal authorizations from the board -- to pass on the appointment of certain new executives, to amend a retirement plan, and so on. Special issues (i.e., "old business") were then discussed, board members expressed their opinions, and decisions were made. Finally, the directors took the opportunity during "new business" to question the chief executive on various issues of concern to them and to raise new problems for discussion.

Two features of the few board meetings that were observed are worth noting. The board meetings focused on the chief executive. He had the information, he understood the issues, and it is to him that the responsibility for action was delegated by the board. The directors played rather passive roles, spending most of their time simply receiving information from the chief executive. Also, there was an atmosphere of
formality at these sessions. In particular, the requests by the manager for authorization were primarily formal ones that were "rubber-stamped" without much consequential discussion.

19. Strategy: During the five weeks of observation, there were a total of 21 meetings that were classified as dealing with "strategy" (important organizational decisions). Because these were particularly long meetings, they consumed 13% of the managers' contact time. Various kinds of strategy sessions were observed:

(a) Some were concerned with the making of a key decision related to an organizational program to be undertaken, and dealing with the solution of a particular problem or the exploitation of a particular opportunity. For example, General Gavin met with a number of his senior executives to decide whether or not to proceed on a foreign joint venture. (b) In some sessions, the manager handled a particular crisis, for example, a severe conflict between two subordinates. (c) In a few cases, explicit operational planning (i.e., budgeting, allocation of resources, or target-setting) was undertaken. For example, President Henshel met with his marketing executives to set the annual sales targets. (d) Finally, in only one case was open-ended strategic planning conducted. Dr. Brown met with a group of teachers, (he did regularly), in a "think group" atmosphere, to look for general problems and discuss new opportunities.

Strategy was usually developed with subordinates, and occasionally with directors or with outside experts (e.g., underwriters). Usually, more than 4 people were involved and the meetings were scheduled. Few sessions were initiated by the manager, and their locations varied widely.

Two points should be noted. Strategy-making was very much intertwined with the other kinds of activities (e.g., giving and receiving information, requests for authorization, even scheduling). In observing the strategy sessions, it was possible to note a number of their characteristics, for example: major decisions were broken into a number of component decisions; the manager took full charge in the event of a crisis; the manager juggled a large number of strategy issues; the manager, not the group, tended to make the major decisions; timing and delay were key factors in
the strategic decision. Clearly, strategy-making is a very complex process, therefore it is discussed at length not at this point, but in a special session of Chapter VI.

20. Negotiation: The managers were involved occasionally in negotiation sessions. In these cases, the manager met with an outsider in an attempt to reach an agreement between their two organizations. President O'Keefe spent some time negotiating with firms that his organization wished to purchase, and Dr. Brown met with two members of a consulting organization to work out a costing conflict.

All negotiation sessions were of extremely long duration, averaging over 2 hours. They involved a number of participants from both organizations, and usually took place in the office of a subordinate or in the board or conference room.

The nature of verbal contacts is summarized in Figure 18 that follows.

4.4 A Note on the Design of the Working Day

Daily Patterns: From the chronology record, it was possible to recognize patterns of activity. However, in analyzing the general distribution of activities over the course of any given day, no significant patterns could be detected. Certain minor patterns were noticed: for example, most of the managers maintained fairly constant and normal office hours (8:15 to 5:15, 8:30 to 5:15, 8:15 to 5:00, 9:00 to 6:30, 9:00 to 5:00); days usually started and ended with desk work; desk work was interrupted by telephone calls and unscheduled meetings; and, activities of long duration were almost always followed by desk work, since the manager had to catch up on mail and messages.
Figure 18: NATURE OF VERBAL INTERACTIONS

CLIENTS

INDEPENDENTS

DIRECTORS

CO-DIRECTORS

PEERS AND TRADE ORGANIZATIONS

SUPPLIERS AND ASSOCIATES

board meetings

instant communication

scheduling ceremony

per- and post-meeting information

expert advice

external board work

contact review

information on plans and policies

status requests, requests for information and advice

negotiations

MANAGER

requesting advice, information, followup

delegating

observational tours

instant communication

advice

information on plans and policies

scheduling

ceremony

deputy review

functional review

post-meeting review

new man review

strategy-making

pre- and post-meeting information

authority requests

requests for information and advice

requests to take action, and to influence decisions

instant communication

briefing and advice

THE ORGANIZATION
It cannot be argued on the basis of the data, however, that mornings differed from afternoons, or that certain activities took place at special times of the day.

**Kinds of Days:** When different days were compared, certain patterns did emerge, but in no way related to particular days of the week. Specifically, six kinds of days were classified:

1. **Catch-up day:** The manager has been away on a trip or vacation, or he has been extremely busy (see 2, 3, and 4 below). He uses certain days to catch up on mail, to go over the telephone messages left by his secretary (these may number twenty or more after a short absence), to return a number of telephone calls, to schedule his time due to the various requests that have been made for it in his absence, and to make himself available for unscheduled meetings. Subordinates who have looked for the manager during his absence will be flocking to his door. Frequently, the manager will try to minimize the number of scheduled activities on such days.

   For example, in his first full day back from a trip to Europe, General Gavin held two scheduled meetings (vs. an average for the other days of 3.5), and had 10 telephone calls (vs. 4). He processed 62 pieces of mail (40% of the total for the week), and spent 48% of his time at desk work (vs. 36%). In another case, Dr. Knowles came in on Saturday to process 76% of the week’s mail.

2. **One-meeting day:** Occasionally, one important, scheduled meeting will account for most of a day. In one case, Dr. Knowles attended an all-day conference, and in another, President O’Keefe spent almost six hours in a meeting where he negotiated to acquire a firm.

3. **Crisis day:** When a major crisis suddenly develops, the manager will delay all that can be delayed (i.e., mail, unscheduled callers), and concentrate all his free time on the crisis. Certain scheduled meetings are cancelled if the problem is sufficiently important. The manager then spends his time searching through records, placing telephone calls, arranging and holding special meetings, and re-directing the course of prearranged meetings that include appropriate people. In one case, a major employee conflict
erupted one morning, and the manager spent much of his non-scheduled time during that day (and more during the week) dealing with the crisis.

4. "Free" day: When there are few scheduled meetings and there is no accumulation of current mail, the manager will (a) dig into his "deep freeze" to find and answer the older letters that did not require immediate reply, and to read the reports that have accumulated, (b) make the telephone calls he has been delaying, and (c) tour the organization. In addition, subordinates abhor an activity vacuum and will take care of any surplus time. One such day was described previously as the busiest of the twenty-five when President Henshel engaged in just three scheduled meetings, but fourteen desk work sessions, seventeen unscheduled meetings, and five tours.

5. Heavily-scheduled day: When a number of scheduled meetings must be held on the same day, the manager will only process the urgent mail and take the important telephone calls, wedging them between the battery of meetings. During one day, Dr. Brown spent nine and one-half hours in seven scheduled meetings, five of which lasted well over one hour each.

6. "Normal" day: Most days bring a heavy load of mail, a number of calls, scheduled and unscheduled meetings, and perhaps a tour or two. These are the "normal" days.

Evening Work: Although most of the work done in the evenings was not observed, the managers were asked to comment on after-hours activity. As previously noted, twenty-four hours of scheduled meetings took place in the evenings -- an average of one hour each evening.

---

12See Radomsky, op. cit., for an analysis of the manager's scheduling procedures during "free day".

13This term was used by General Gavin to refer to a phenomenon that was found in all five offices.
Furthermore, the occasional business-related telephone call was placed or received in the evening. For example, an elected official called Dr. Knowles to ask advice on a state medical appointment.

There was a tendency to take home the lengthy, but interesting mail, such as in-house reports and books related to the activity of the organization. The managers found it difficult to do concentrated reading during regular office hours. However, not all lengthy mail was taken home. Dr. Knowles said: "I don't want to read routine junk at home; I'd rather think there." General Gavin would not take home documents that required hard decisions — they interfered with his rest. In addition, some report-writing and speech-writing was done at home.

Frequently expressed was a desire to use the evening to reflect on the day's activities. Often, "plans" were made in the evening. These did not appear to be comprehensive long-range plans. Rather, they seemed to be ideas and strategies related to specific opportunities and non-pressing problems. Thus, the managers reflected on their activities at home, and were prepared to undertake some concentrated (although not disquieting) work there.

4.5 A Note on the Secretary's Role

By no stretch of the imagination are secretaries to chief executives simply women who are adept at taking dictation, typing letters, answering the telephone, and opening mail. It might be more
appropriate to draw an analogy with the quarterback and his center, the person who gives him the ball and who helps to keep the opposition away so that the quarterback can do something with that ball. Leaving aside her routine roles (e.g., typing, taking dictation), three of the secretary's roles are described below:

**Scheduler:** The secretary converses frequently with the manager. Although careful records were not kept, it seems reasonable to estimate that contacts, lasting less than one minute each, averaged at least fifteen per day during the study. Most of these concerned scheduling arrangement.

The secretary is continually presenting scheduling options — "Mr. Nelson called and wants to see you"; "The flight is booked, but you can take the 8:14"; "Don't forget that you wanted to see Gerry before that meeting"; "Tomorrow's meeting is called off"; "I hear that Larry won't be there". Frequently this information comes in the form of small, typewritten notes, and it is common to see a manager sorting ten or fifteen of these at one time. While the secretary talks, the manager is consulting his calendar pad, fitting in some meetings, shifting others, and asking his secretary to negotiate on still others — "Get him to change the time"; find out what he really wants and see if someone else can take care of him."

**Guard:** Outside the office, at her own desk, the secretary spends much of her time protecting her employer. She sorts his mail and
attempts to keep from his anything that she feels will waste his time. Useless mail is thrown away, other mail is routed to the appropriate subordinate.

Callers may receive harsh treatment. A select group of people — those who see the manager often and those with particularly high status — gain immediate access to the manager. Everyone else must first justify his use of the manager's time to the secretary. It appears to be more difficult to do this with the secretary than with the manager himself. Perhaps one can argue that the manager is able to be so free with his time only because he has a stern secretary in front of him to look after his time.

It should be noted that in order for the secretary to play effectively the role of "guard", she must have a full understanding of his preferences. For she can only make effective decisions about his callers and mail if she knows what decisions he himself would make in particular situations. Thus, secretaries and managers must know each other well before they can work together effectively.

Alter Ego: Finally, the secretary plays an advisory role, listening to the problems of the day and sometimes giving advice. Such a role serves not only to provide the manager with a sympathetic ear; she needs the information she collects in this way to react appropriately to the crises which frequently reach her before they reach him. A secretary who mistakenly blocks key information related to a crisis can do great damage.
Two speculations are worth noting. It appears that the secretary, in her professional capacity, becomes an extension of the manager's personality — she learns to think as he does. It also appears that the secretary of the chief executive relates to the other secretaries much as the chief executive relates to his subordinates. Specifically, she holds the position of greatest status among her colleagues.

Perhaps the secretary's job can best be characterized by recounting one anecdote:

Secretary: I think you'd better go out the back door.
Manager: Is there a fire out front?
Secretary: Yes!

4.6 A Note on the Difficulties in the Categorizing Process

In the social sciences, where measuring tools are crude, it is often difficult to categorize observations. Eggs can easily be measured and graded, using well-defined criteria, but managerial activities frequently cannot. Nevertheless, for ease of understanding and analysis, it was necessary to categorize neatly all the observations of this research. There follows a description of the various difficulties of categorizing and the means of resolving them. It is hoped that through this discussion, some understanding can be gained of the information that was lost in the process of categorizing.
Activity and Medium: The first problem arose with very brief contacts. I decided that every contact, no matter how brief, should be recorded. This was a difficult rule to maintain. Imagine the case when a passer-by put his head into the manager's office to say a quick "hello". Did this merit inclusion? I found that by including all contacts I alleviated some difficult problems. (I made an exception of contacts that the manager had with his secretary, since they were very numerous and different in kind from most others.)

Distinguishing between "tours" and "unscheduled meetings" proved to be difficult at times. In the case of a subordinate entering the manager's office to deliver information, and in the case of a manager who spent ten minutes walking about his plant and encountering no one in particular, it was clear that the former could be called an unscheduled meeting and the latter, a tour. Problems arose when the manager ambled down the hall toward the plant and met a subordinate to whom he gave some information. In general, if the manager's goal when he embarked on the trip was basically to observe something, to greet someone informally, or simply to tour, I called the activity a tour. (Note, however, that if the manager did end up by passing information, the purpose of the tour was recorded as "giving information".)

One final problem should be noted at this point, that of what activities to exclude. Clearly, it was appropriate to exclude telephone calls from the manager's wife. The difficulty arose with
certain other extra-organizational contacts. Where was the line to
be drawn in the following cases: lunch with a competitor to discuss
trade gossip, a board meeting of an organization in an unrelated
industry, a board meeting of the golf club? The manager may or may
not have received important information related to the running of his
organization at each of these meetings. A more specific case was
General Gavin's activities associated with the Fulbright hearings.
He emphasized that all his activities were related to his work, and
he explicitly included those associated with the Hearings. The
difficulty with this view was that it meant I would have to study
every verbal and written contact, no matter how social. But this
could not be done, both because of the great imposition that would
have to be made on the manager and because of the marginal returns
that observation of many of the social activities would bring.

The rule I used was simply to include business-like work (e.g.,
Chamber of Commerce board meeting) and exclude work that was
ostensibly social in nature (e.g., golf club board meeting). I also
decided, perhaps arbitrarily, to exclude work associated with the
Fulbright Hearings.

The issue of what to exclude is worthy of this lengthy
discussion, in part because of the difficulties presented and because
of the need to deal with it more carefully if this type of research is
undertaken again. More importantly, it is raised because it highlights
the point that the executives tended to relate much of their social
activity to their work.
Attention to Mail: "Skim", "read", and "study" are vague words, but were used respectively to imply (1) that a piece of mail reached the manager's desk, but, with the possible exception of one brief section, it was given cursory attention, (2) that a good part of the item was read at standard reading speeds, and (3) that more time was spent on the item than was necessary simply to "read" it. This categorization had some meaning in the cases of long reports and periodicals. However, it was difficult to decide what sort of attention the manager gave to short letters and memos, therefore most of these were recorded simply as having been "read".

Duration of Contact: Since I did not feel that it was worthwhile or appropriate to use a stopwatch, I recorded duration to the nearest tenth of an hour (i.e., maximum possible error due to rounding was three minutes); I do not believe that this rule introduced important inaccuracies. A small problem arose, however, with contacts that lasted less than three minutes. If I recorded them as having lasted 0.0 hours, then they would not appear in the time analyses. I felt that it was appropriate to record them as having lasted 0.02 hours (just over one minute), since, of these activities lasting less than three minutes, a great majority lasted less than one minute.

Participants in Contact: The categorizing of participants proved to be a difficult and time-consuming task. Eventually I found a means of categorizing to my satisfaction the outsiders with whom the manager
interacted. I could not, however, appropriately categorize the employees of the managers' organizations, and I was forced, therefore, to call them all "subordinates".\textsuperscript{14}

Contrary to much of the traditional literature, the lines of authority in the organizations were not clear, at least not to the researcher who planned a brief stay. \textit{A priori}, one would expect most of the chief executive's contacts to be with his first-line vice presidents, and only certain contacts (e.g., ceremonial contacts) with lower-level employees.

Such was not the case. Relatively low-ranking employees fed information directly to the chief executive and were fed information directly by him. They also made fairly routine requests of him. Thus, if I had defined the position of people by the nature and frequency of their contact with the chief executive, I could not have duplicated the organizational chart. Rather, I would have drawn a wheel-like structure. At the hub, with an enormous span of control, would have stood the chief executive.

Thus, I was forced to beg the whole question of categorizing subordinates. The only distinction I made was to designate one man as the manager's "deputy" -- that person who had distinctly frequent and open-ended contact with the manager.

\textsuperscript{14}Because of its other meaning, this was an unfortunate word to choose, but I could find none better.
Initiation of Contact: Who could be recorded as the initiator of a meeting that a subordinate called to present the findings of a study requested by the manager? Who was to be recorded as initiator when the manager chose to attend a conference to which he was invited by a trade organization? For the vast majority of contacts, there was no difficulty in defining the form of initiation. However, because of the contacts similar to those described above, I was forced to use a somewhat arbitrary, although convenient rule -- to record the most recent and most apparent initiator, and to ignore previous contacts. (Thus, in the first case, I recorded the subordinate, in the second case, the manager.)

Functional Area: I began the research with the intention of recording the "functional area" associated with each contact and piece of mail. However, it soon became clear that the difficulties of categorizing would not be overcome. For example, was I to record a monthly report containing sales and production figures as "control", "marketing", or "manufacturing"? In the case of a meeting to sort out a conflict between two manufacturing executives, was I to record "manufacturing" or "personnel"?

The neat functional categories that we tend to use appear to be of little help in the study of managerial work, simply because the
manager's work involves such a complex intermingling of these functions. Thus, I presented no information on "functional area".

**Purpose of Mail and Contact:** By far the most important categorization process was the determination of "purpose", since this provided the basis for much of the theory that follows. Choosing these categories was the most difficult and time-consuming process. I felt that this set of categories should (1) represent a logical partitioning of the manager's work, (2) be easily understood by the reader who has never studied the manager's work, and (3) include all observed activity in as few categories as possible. These proved to be very difficult conditions to satisfy, and the categorization of "purpose" required many, many hours of thought and a number of reclassifications of the data.

Given a set of purposes, how was I to determine which one was most appropriate for each activity that took place during observation? Most mail, telephone calls, and tours had fairly overt raisons d'être. People tended to write or telephone the manager for clear and simple reasons. However, meetings, because they were of longer duration and because of certain characteristics of face-to-face discussion, frequently presented categorizing difficulties. Therefore, I found it necessary

---

15 A number of the studies in which diaries were used (see section 2.6) included conclusions on "functional area". Based on my experiences in this research, it seems to me that these conclusions are open to question.
to develop a number of rules. Before presenting them, it is necessary to describe in some detail the pattern of the scheduled meeting.

The scheduled meeting appears to follow a particular pattern which, regardless of its ostensible purpose, makes it, in part at least, an information trading device. The three stages of the scheduled meeting, as they appeared in this research, are outlined below:

1. Opening Pleasantries and Gossip: American norms dictate that meetings do not begin with discussion related to its main purpose. Rather, meetings begin with general polite discussion. This stage of the meetings might be referred to as a ritual, but the interesting thing is that the discussion often leads to the trading of information which, although not related to the purpose of the meeting, may prove to be quite important to the manager.\(^{16}\) Often, gossip about peers in the trade is exchanged; comments are made on particular discussions the participants have recently had or on published materials they have recently read; important political events are discussed and background information is traded; and so on. It seems reasonable to conclude that the manager collects much important information in these discussions; and that this fact alone makes the face-to-face meeting (as contrasted

\(^{16}\) Dr. Eric Berne (author of *Games People Play*, published in paperback by Grove Press, Inc., New York, 1967) defines a "ritual" as "a stereotyped series of simple complementary transactions programmed by external social forces" (p. 36). He goes on to cite an example of a ritual and concludes: "This exchange is not intended to convey information." Thus, the first stage of a meeting is more than a "ritual".
with the telephone call or the mail) a powerful medium. Thus, the more frequently the manager interacts with people on a face-to-face basis, the more generally informed he becomes.

2. The Purposes: Core, Covert, Secondary: A few minutes after the last participant arrives, a noticeable change occurs, initiated either by a sudden silence or by a statement such as, "O.K., let's get down to business." At this point, the ostensible or core purpose of the meeting may begin to become evident -- a request is being made, some information is being given, negotiations are being conducted, a decision is being developed, ceremony is taking place. However, categorizing "purpose" may still be difficult, for the following reasons:

To accomplish one purpose, one may first need to accomplish another purpose. For example, to make a request, one may first need to give information (before asking the manager to approve a new sales plan, there is a need to brief him); to come to a strategic decision, long briefings may first have to take place.

There is the problem of double-talk:
- A man requesting advice (Should I take the job?) may simply be trying to inform (I've been asked to take the job.) or may be requesting authorization (Will you allow me to take the job?).
- A man giving information (Look at the layout of this promotion center.) may be requesting authorization (You had better speak now because if there is a problem later, I'll claim you had your chance to stop it.).
- A manager seeking advice (What do you think of Martin for the job?) may be trying to feed the grapevine (Let Martin know I'm considering him for the job.).
- A manager giving information (I don't like the report.) may be requesting or demanding something (Change the report.).
A manager giving one kind of information (I'm holding the meeting even though you cannot be there.) may be giving a different kind of information (I don't want you at the meeting.).

A man giving one kind of information (I would like to recommend a policy change in our promotion procedures.) may be seeking another kind of information (Why didn't you promote my subordinate?).

At times, a man will use an excuse to gain access to the office so that he can raise another issue as an aside. (A subordinate comes to leave a reprint, and, before leaving, comments: "By the way, I hear that the controllership position is open in Los Angeles [and I would like to have it].")

In certain cases, a contact may have more than one overt purpose: Social events can be used to transfer certain kinds of information. (At a cocktail party, a number of subordinates find the manager to tell him of their accomplishments.) A speech may be both ceremonial and informational. (The manager must make a speech to a visiting group, but views this obligation as an opportunity to inform a segment of the public of the reasons behind a recent price increase.)

Finally, an important bit of "instant communication" may change the whole nature of a meeting. (News of a competitor's move, or news of anticipated moves by the public at a board meeting, may turn relatively informal meetings into high-pressure strategy sessions.)

3. Side Issues: After the primary purpose of a meeting has been accomplished, issues will often be raised that are at the back of people's minds, for example:

Manager: I just remembered; a friend called looking for a job; do you need an engineer in your department?

Manager: By the way, I just bought a company!

Subordinate: There was quite a reaction at the plant over your decision to end the program.

Peer: By the way, a top-ranking civil servant will be in the country next week; you may want to meet him.
These are side issues, of secondary concern, yet they may be important ones to the manager. He may accomplish something that needs to be done, or he may receive or transmit some important information. In particular, it was interesting to notice the skills the managers displayed in using this third stage of meetings to pry information from available sources, oftentimes when participants did not appear at first to be likely sources of the information.

To provide some means of dealing with the complex meeting, the following categorizing rules were used:

1. The incidental flow of information of stages one and three of meetings were ignored, except in the cases where the discussions assumed great importance in terms of time consumed and issues discussed. In those cases, the meetings were categorized as "review" sessions.

2. The ostensible purpose of a meeting was used for categorizing unless covert reasons were obvious. In other words, the doubletalk was ignored unless it was not very subtle. When there was real doubt, the manager was asked for his interpretation of "purpose".

3. When meetings had more than one purpose, the one thought to be most important was used. Thus, a speech on the hospital's history would be called ceremonial, one on the reasons for its rising costs, informational. 17

17 Note that the categories of "strategy", "receiving information", and "giving information" were used for certain contacts. This is in no way meant to imply that all strategy-making and information-transmission took place during these contacts. Rather, the implication is that these purposes were explicitly highlighted during these contacts. Clearly, all contacts involved the transmission of information, and many, categorized elsewhere, involved strategy-making of various kinds. Even "scheduling", for example, involved strategy-making of one kind (see Chapter VI).
4. In the case of a request for information being made and satisfied, if both took place at the same time, the contact record would show "request" (e.g., newspaper man interviewing chief executive). If they took place separately, then the first meeting was recorded as a "request", and the second, "giving information" or "receiving information" (e.g., manager asks subordinate to conduct study; subordinate reports back one week later).

5. When the discussion focused on one area (e.g., the computer facility) but a number of purposes appeared to be equally important (e.g., making requests, transmitting information, making strategic decisions), the meeting was categorized as a "review" session.

6. A change in the classification of a meeting was made when some "instant communication" changed the course of the meeting. In two actual cases, the meetings were categorized as strategy sessions. Similarly, when the manager started on an observational tour and ended up transmitting information, the purpose was changed to "giving information".

In summary, I did all I could to find the most logical classification for the purpose of each meeting, without trying to close my eyes to important data and thereby paying a high price for categorizing, and without trying to search for trivial subtleties.
CHAPTER V

SOME DISTINGUISHING CHARACTERISTICS OF MANAGERIAL WORK

The manager has the task of creating a true whole that is larger than the sum of its parts, a productive entity that turns out more than the sum of the resources put into it. One analogy is the conductor of a symphony orchestra, through whose effort, vision and leadership individual instrument parts that are so much noise by themselves become the living whole of music. But the conductor has the composer's score; he is only interpreter. The manager is both composer and conductor.

Peter Drucker\(^1\)

Before we made the study, I always thought of a chief executive as the conductor of an orchestra, standing aloof on his platform. Now I am in some respects inclined to see him as the puppet in the puppet-show with hundreds of people pulling the strings and forcing him to act in one way or another.

Sune Carlson\(^2\)

---


\(^2\)Carlson, *op. cit.*, p. 52.
In this chapter, conclusions are drawn from the quantitative data presented in Chapter IV. In the next two chapters, the most important theory is developed, using the analysis of "purpose" of contacts and mail on managerial roles and managerial programs.

The quantitative analysis of the previous chapter served to highlight a number of distinctive characteristics of the work of the managers studied. Because each of the five men clearly exhibited these characteristics in their work, they are discussed in this chapter as the distinguishing characteristics of managerial work in general. It should be remembered that the generalizations that follow are based primarily on five weeks of observation.

Six sets of characteristics are presented, dealing with (1) the quantity of work, (2) the variety and brevity of the work, (3) the action-orientation of the manager, (4) his location between a network of contacts and his organization, (5) the uses he makes of the various media, and (6) the means he uses to exercise self-control.

A final note analyzes the actual differences between the work of the five men studied, and indicates some of the organizational and personality characteristics that may explain these differences.

5.1 Great Quantity of Work and Unrelenting Pace

By conventional standards, the manager's office hours are not excessively long, averaging about forty per week. However, this figure proves to be deceiving. For one thing, the job requires much
travel, often during off-hours. Furthermore, most weekday evenings, when not devoted to formal meetings, are spent on job-related reading and thinking. Even social events are seldom entirely social — information is collected, status requests\(^3\) are made, and so on.

For the most part, there is no break in the pace of activity during office hours. The mail (average of thirty-six pieces per day in this study), the telephone calls (average of five per day), and the meetings (average of eight) account for almost every minute from the moment the man enters his office in the morning until he departs in the evening. During the day, a true break seldom occurs. Coffee is taken during meetings and lunchtime is almost always devoted to formal or informal meetings. If free time should exist, ever-present subordinates will quickly usurp it. If the manager wishes a change of pace, he has two means at his disposal — the observational tour, and the light discussion which generally precedes scheduled meetings. But these are not regularly scheduled breaks, and they are seldom totally unrelated to the issue at hand — managing the organization.

Thus, the work of managing an organization is taxing. The quantity of work to be done and that the manager chooses to do during the day is substantial and the pace is unrelenting. After hours, the

---

\(^3\)This term and various others used in this chapter were defined in Chapter IV.
manager can escape neither from an environment which recognizes the power and status of his position, nor from his own mind which has been well-trained to search continually for new information.

5.2 Variety, Discontinuity, and Brevity of Activity

Most people in a large, industrialized society seem to work at few activities that are of long duration. Machine operators may learn to make one part and then spend months doing so; engineers and programmers are expected to spend many weeks designing a bridge or a computer program; salesmen may spend their lifetimes selling similar products.

The manager can expect no such concentration of efforts. Rather, his activities are characterized by great variety and discontinuity. The managers in this study averaged thirty-six written and fifteen verbal contacts each day. These fifty-one contacts, on the average, dealt with close to fifty-one distinct issues, and these arose in no particular pattern.

The contacts that the manager has differ in kind as well as in content and the manager must be prepared to shift moods quickly and frequently. A director calls to ask a special favor; then a subordinate rushes in to tell of a fire at one of the facilities; this is followed by a scheduled event at which the manager presents plaques to retiring employees; the manager returns to find a message from a major customer who is demanding the renegotiation of a contract;
and so on. Throughout the day, the manager encounters a great variety of activity — the making of a request, the transmission of "instant communication", the occurrence of ceremony, the initiation of a crisis. Perhaps most surprising, the significant activity is interspersed with the trivial in no particular pattern.

The variety and frequency of activities gives rise to their brevity. It seems surprising that half of the observed activities were completed in less than nine minutes, and only one-tenth took more than one hour. In effect, the managers were seldom able or willing to spend much time on any one issue in any one session. Telephone calls were brief and to the point, and desk work sessions and unscheduled meetings seldom lasted as long as one-half hour. Only scheduled meetings, usually dealing with a multitude of issues or one complex issue, commonly took more than one hour. But even an average duration of sixty-eight minutes seemed meager, given the nature of the issues discussed. The same characteristic of brevity was reflected in the treatment of mail. A few of the men expressed dislike for long memos and most long reports and periodicals were quickly skimmed.

Given that managerial work is characterized by variety, discontinuity, and brevity, it seems evident that the manager is generally unable to become deeply involved in issues unless these issues reappear
frequently. Yet the manager is responsible for a great many of the major decisions that his organization must make. A dilemma is evident — decisions must be made carefully but there is no time to get deeply involved in any one decision at any one time. To resolve the dilemma, it appears that the manager adopts a number of strategies. He turns to trusted subordinates who have the time to probe, and he accepts their advice on certain decisions. He allows himself time to learn about issues by dividing major decisions into sets of less significant decisions that can be made in a number of sessions spaced over long periods of time. And, he attempts to inventory as much information about his organization as he can, so that he is prepared when a decision is unexpectedly called for. These strategies do not alter the basic situation — when the manager must make a decision, he usually must make it very quickly. This fact must shock the subordinate who spends six months on a project only to find that the manager has vetoed it in a twenty minute meeting.

The need for the manager to make decisions quickly has two extremely important implications for management science. First, it causes one to question the traditional description of the manager as

---

4 To the man who has been used to being deeply involved in projects in a previous job, it would appear that this aspect of managerial work would not be to his liking. (For example, Dr. Brown expressed regret that he could not become more deeply involved with curriculum development.) It would be interesting to study the behavior of new managers who have recently left jobs as specialists.

5 These strategies are discussed at length in Chapter VI.
a planner. Can the manager, who must make quick, disjointed decisions, plan in the way that the textbooks say he must? Second, this point serves to indicate the enormous opportunity cost to his organization of the manager's time. These two implications are the bases for two recommendations directed to the management scientist, and presented in Chapter VII.

Must the manager engage in so much activity and, as a result, be unable to probe deeply into any of it? Does he choose to? Noting the brevity of managerial activities in his study, Sune Carlson concluded that managers could easily lengthen the average duration of their activities. This would simply involve freeing themselves from interruptions by making better use of their secretaries and by being more willing to delegate work.6

But the managers of this study did not choose to free themselves of interruption or give themselves much free time. Yet, each of the five men appeared to be properly protected by his secretary, and there was no reason to believe that these men were inferior delegators.

To a large extent, it was the managers themselves who determined the duration of their activities. For example, the observational tours that they chose to take could not be interrupted by the telephone, yet they had an average duration of only nine minutes.

6Carlson, op. cit.
Furthermore, the manager, not the other parties terminated many of the meetings and telephone calls, and the managers frequently left large meetings before they ended. Often, the manager interrupted his desk work to place a telephone call or to request that a subordinate come by. One man located his desk so that he could look down a long hallway. The door was usually open, and his executives were continually coming into his office. He fully realized that by moving his desk, closing his door, or changing the rules his secretary used to screen callers, he could easily eliminate many of these interruptions.

Why, then, does the manager seem to prefer brevity and interruption in his work? To some extent, certainly, the manager encourages interruption because he does not wish to discourage the "instant communication" associated with the crises that can develop so quickly. But it would appear that this can explain only a limited amount of the manager's behavior.

A more thorough explanation might be that the manager becomes conditioned by his work. He develops a sensitive appreciation for the opportunity cost of his own time. Thus, he takes on much work because he realizes his own worth to the organization. Also, he is aware of the ever-present assortment of obligations associated with his job — the stack of mail that cannot be delayed, the callers that must be attended to, the meetings that require his participation. In other words, no matter what he is doing, he is plagued by what he
might do and what he must do. Also, it would seem that shortly after a man assumes a managerial position he becomes used to the variety in his work, and then he finds that boredom develops easily.

In effect, the manager is encouraged by the realities of his work to develop a particular personality -- to overload himself with work, to do things quickly, to avoid wasting time, to participate only when the value of participation is well-defined, to avoid too great an involvement with any one issue. To summarize, it would appear to be worthwhile for any manager to learn to become superficial in a proficient way.

5.3 Preference for the Current, the Specific, the Ad Hoc

There is strong indication that the manager gravitates toward the more active elements of his work -- the current, the specific or well-defined, and the ad hoc or non-routine activities.

This is demonstrated in a number of ways, for example, in the treatment of mail. Despite the fact that only 22% of the five managers' time was spent on desk work, mail processing was often considered to be a burden. It might be argued that this is, in part at least, explained by the age of the information in the mails, by the dullness of a medium that lacks verbal interaction, and by the fact, to be discussed at a later point, that only a small part of the mail tends to be of specific and immediate use to the manager. The treatment of the information sent to the manager on the internal
operations of his organization suggests that he is more interested in ad hoc information than in routine information. Of the forty routine operating reports received during the study, only two elicited written reactions. In contrast, seven of the sixty-five ad hoc reports were reacted to, as were four of the eleven letters written by clients. Furthermore, an interesting comparison may be made between periodicals sent regularly and in great quantity, and the written requests made of the managers. The former, numbering 104 in the five weeks, resulted in only four pieces of output mail. The latter accounted for about half the managers' total output mail. Thus, the active correspondence tends to receive greater attention than does the routine information. Finally, it might be noted that the mail categorized as "advice on situations" — mail related to live problems and opportunities — tended to receive the most extensive treatment. In summary, the manager seems to react to the ad hoc mail that deals with concrete, live situations, and seems to be less concerned with the routine reports, general studies, and regular periodicals.

The manager's desire to have the most current information is strongly and frequently demonstrated. An outstanding example was President Henshel's receipt of the ratings of a Bulova sponsored television show less than twenty-four hours after its completion. A most interesting phenomenon is that of "instant communication" — the very current, "hot" information. This information flows frequently and informally, via telephone or unscheduled meeting, and receives top priority. It interrupts meetings and easily
satisfies the secretary's criteria for entry to the manager's office. Often managers will redesign a workday or redirect a meeting because of some "instant communication" they receive.

Thus, there is evidence in this study that the manager demonstrates a strong preference for current information, and conversely, that he tends to do little with the many routine reports that his organization develops for him. And because he wants his information quickly, the manager seems willing to accept a high degree of uncertainty in this information. In simple terms, gossip, speculation, and hearsay form a most important part of the manager's information system.

The scarcity of routine in managerial work is best demonstrated by the infrequency of "clocked" meetings. A surprising statistic is that only one verbal contact in fourteen was regular or "clocked", the other thirteen being arranged on an ad hoc basis.

Finally, with very few exceptions, managerial activities concern specific issues. During working hours, it is rare to see a manager holding an abstract discussion for its own sake, or carrying out general planning activity in an open-ended sense. There was only one real case of this. Dr. Brown held a regular meeting with a group of teachers to discuss general educational problems and ideas. Perhaps the infrequency of observational tours can now be explained -- the manager cannot bring himself to spend much time on such open-ended activity, on just "poking about".
Thus, there is strong indication again that the manager adopts particular behavior patterns as a result of his work. The pressures of the managerial environment do not encourage the development of reflective planners. If anything, the job breeds adaptive information manipulators who prefer the live, concrete situation. The manager works in an environment of stimulus-response, and he develops in his work a clear action-orientation.

5.4 Between the Organization and a Network of Contacts

Virtually all the manager's time is spent in written or verbal contact with other people. Diagrams 11 and 18, in the previous chapter, showing the flow of mail and the nature of verbal activity, serve to depict the manager as the focal point in an extensive network of contacts.

A wide variety of outsiders communicate with the manager for a number of purposes. Clients, business associates and suppliers, peers who manage other organizations, trade organizations and government officials, co-directors, and independents (those with no relevant organizational affiliation) make up this network. Many of them have relatively formal relationships with the manager. They make the occasional status request and engage in ceremonial activity with him. Peers ask him to speak, consultants seek contracts, politicans request advice, consumers write for free merchandise, and so on.
To gain access to outside information, the manager develops a system of informers. Some are personal contacts — friends, peers, and co-directors — who send him various reports and tell him of the latest events and opportunities. In addition, the manager retains a number of experts — consultants, lawyers, underwriters — to provide specialized advice. Trade organizations keep him up to date on events and reports of his trade — the unionization of a competitor, the state of impending legislation in Washington, the promotion of a peer.

Finally, stemming from his personal reputation and that of his organization, the manager is fed, by people he has never seen, with unsolicited information and ideas — a suggestion for a contract, a comment on a product, a reaction to an advertisement.

It is interesting to note that this network of informers seems to be the heart of the manager's external information system, a system that is largely ad hoc in nature. Furthermore, to the extent that this system is consciously designed, it is designed by the manager himself. Very little external information comes from formal systems. Despite this, the manager demonstrates a pronounced thirst for external information. For example, the few unsolicited letters from customers,

---

7Two exceptions were the ratings of television shows and clippings sent by commercial clipping services.
commenting on the organizations' services and products, received 
careful treatment; the frequent internal operating reports, carefully 
designed by teams of management scientists, often did not. 8

The manager seems to send less information out of his organization 
than he receives from outside. Some is exchanged during review 
sessions with personal contacts, and much of his output to outsiders 
consists of replies to the requests made of him, acknowledgements, 
speeches or comments during interviews on his organization's plans 
and policies, and information which flows as a result of his work on 
external boards of directors.

The manager seems to interact infrequently with the directors of 
his organization. During the study, very little flowed between the 
managers and the directors in the mails, and what did, tended to be 
of a formal nature -- status requests and formal reports. Verbal 
contact was slightly more common, much of it in terms of formal 
board meetings. 9

It is with members of his own organization that the manager has 
a great many of his contacts and spends much of his time. In the

---

8 President Henshel was one chief executive who gave these 
reports more careful attention, perhaps because he was temporarily 
assuming the duties of Marketing Vice President.

9 There was substantially more interaction between the directors 
and the managers of the two non-business organizations, although not 
what could be considered a great amount.
study, subordinates accounted for 39% of the mail the managers received, 55% of the mail generated, 65% of the verbal contacts, and 48% of the time in verbal contact.

Subordinates make a variety of requests of the manager, largely for authorization, information, and advice; they send to him a wide variety and great quantity of information, in the form of operating reports, "instant communication", briefings on problems and opportunities, ideas, trade gossip, and so on. To some extent, they act as information filters, selectively forwarding letters, memos, and magazine articles from their own mail. Many review sessions — an important time for information trading — are held with subordinates, as are most strategy-making sessions.

The manager interacts freely with a wide variety of subordinates at various levels, and he seems not to concern himself that they or he bypass formal lines of authority. It would appear that it is more important to him that information flow quickly and efficiently. One subordinate above all others — named "deputy" in the previous chapter — seems to have more frequent and more open-ended contact with the manager. Perhaps the manager wishes to have one trusted subordinate who is as well-informed as he. This man knows what information the manager needs most, therefore he can best supply it. Furthermore, the manager may wish to have someone with whom he can discuss the issues of the day. This role can best be played by one man who is thoroughly informed.
The manager forwards into his organization a good part of the information that he receives from the outside; he delegates a number of the status requests made of him; he originates the occasional report for use by subordinates; he makes a variety of requests for information, advice, and followup; and he tells organization members of his plans and policies.

In summary, the manager's position may be characterized as the neck of an hourglass. Information and requests flow to him from a wide variety of outside contacts. He sits between this network of contacts and his organization, sifting what is received from the outside and sending much of it into his organization. Other information and requests come from below, but less of these go outside the organization directly. Most are for his own use, and some are sent back to other parts of the organization.

5.5 Preference for Verbal Media

The manager uses five basic media: the mail (documented communication), the telephone (purely verbal communication), the unscheduled meeting (informal face-to-face communication), the scheduled meeting (formal face-to-face communication), and the tour (visual communication).

Certain fundamental differences exist between the five. Documented communication requires the use of a formal subset of the language, and involves long feedback delays. All verbal media carry,
in addition to the information from the words used, the messages sent by voice inflection and by delays in reaction. In addition, face-to-face media carry the information transmitted by facial expression and nervous movement. These are interesting differences, and important ones, but they can only be noted in this research.

Media differences can be analyzed here in terms of the data collected — duration of activity, purpose, participant, and so on. The description of the use of each medium follows:

**Documented Communication:** The most outstanding feature of the input mail is that it seems to receive such cursory treatment by the manager. Frequently, it is processed so quickly that one wonders if this might be some sort of ritual. For example, during the study, an average of twenty periodicals were received per week. Most were skimmed (often at the rate of two per minute), and an average of only one in twenty-five elicited a reaction. One manager looked at the first piece of "hard" mail he received all week — a standard cost report — and quickly put it aside with the comment: "I never look at this."

During one week of observation, the manager constantly sifted through the mail, hesitant to process it, yet searching for something that could not be left unattended. From Monday to Friday he found thirty-two pieces worthy of immediate attention. Then he came in on Saturday to process 132 more, to "get rid of all this stuff". This
activity reflects a general concern — no matter how inconsequential the contents are, the flow of mail cannot be impeded or the manager will be swamped with paper.

Thus, the processing of mail seems to be treated as an unwelcome chore — perhaps the only duty that many managers tend to dislike.

The incoming mail in this study was divided into twelve distinct groups and, of these, four groups — acknowledgements, status requests, solicitations, and reference data — accounting for 36% of the mail, dealt with relatively inconsequential matters. Another 51% representing six groups — reports, periodicals, events, internal operations, and ideas — was designed to inform the manager about his organization and it environment. Much of this mail was skimmed and relatively little elicited reactions. Only 13% of the mail was of specific and immediate use to the manager — the requests for his authorization, the advice on current situations, and the pressures and problems specifically defined in the mail. Thus, the managers' treatment of the mails may be explained by the fact that 87% of the input mail was not, by and large, "action" mail.

The manager seems to treat printed output with even less interest. In the study, almost all the output was in reaction to printed input. On the average, the managers of the study initiated only one piece of mail each day. Fully half of all the output was in the form of replies to written requests, most of them inconsequential ones. In most cases, the managers felt a personal obligation to reply. The managers seldom
sent documented information out of the organization, although they did write the occasional report to the directors. Occasionally, a report or memo was generated for internal use.

The one important role of the mail is reflected in the input mail that the manager forwards to other members of his organization for informational purposes. In this study, the managers forwarded about one piece for every twelve received.

Contrasted with verbal media, letter-writing is time-consuming, especially since words to be documented must be chosen carefully. Furthermore, the information moves slowly to the target, and much time elapses before feedback is received. Thus, one manager commented: "I don't like to write memos, as you can probably tell. I much prefer face-to-face contact." And another repeated the same sentiments: "I try to write as few letters as possible. I happen to be immeasurably better with the spoken word than with the written word."

In summary, the mails are used largely for formal documents and formal requests, for lengthy correspondence and reports, often of marginal interest to the manager, and for general information related to the outside environment. To a limited extent, where the distances

10 Two of the men studied preferred to write their mail longhand before it was typed.
are large, the mails may be used instead of verbal media to transmit "instant communication". The manager, it seems, uses the mails to provide what he feels are the necessary replies and acknowledgements to incoming mail, and to forward certain information into his organization, but for little else. His desire for action causes him to treat mail processing as a chore, and causes him to gravitate to verbal means of communication.

**Purely Verbal and Informal Face-to-Face Communication:** During the study, telephone calls and unscheduled meetings were generally of short duration, averaging six and twelve minutes respectively. Together they accounted for two-thirds of the managers' verbal contacts.

It appears that one uses these media if one is sufficiently well-known to the other party to be able to dispense with formalities, and for two main purposes — to make brief, well-defined requests and to send information that cannot be delayed. Thus, the records show that most verbal status requests and solicitations came on the telephone, and that scheduling was done on the telephone or in the unscheduled meeting. The managers and their subordinates used the telephone and the unscheduled meeting for consequential requests, and these media were used for the passing of information, in particular, "instant communication". Occasionally, when a problem arose suddenly, a telephone call or unscheduled meeting was used to develop strategy.
Subordinates who are within walking distance of the manager's office and who have frequent contact with the manager, tend to prefer the unscheduled meeting to the telephone call. If the manager makes himself inaccessible, they will use the telephone. Those who do not work in the immediate vicinity of the manager, but who interact with him frequently enough to have ready and informal access to him, use the telephone for informal verbal contacts.

In summary, the telephone call and the unscheduled meeting are used for brief, informal contacts between the manager and familiar outsiders or close subordinates, most often to transmit pressing information and to deliver requests.

**Formal Face-to-Face Communication:** Scheduled meetings consumed the greatest share of the managers' time. These scheduled contacts were distinctly long ones, and provided the managers with their opportunities to meet with large groups and to meet people away from their organizations.

To some extent, scheduled contacts are used for the same purposes as informal contacts — to deliver status and action requests and to transfer information. More characteristically, however, these contacts differ in kind. The scheduled meeting is often held with someone who does not have a close working relationship with the manager — a newspaper reporter, a salesman, a student, and so on. Furthermore, the issue under discussion is often formal in nature. Also, scheduled meetings are used, instead of unscheduled meetings,
to transfer information when it is expected that much time will be consumed. Thus, when a close peer wishes to send a small quantity of information, he will use the telephone. When the two men wish to discuss various events in the trade, they will schedule a meeting, perhaps over dinner.

Three kinds of activities take place primarily at scheduled meetings — ceremony, strategy-making, and negotiation. The reasons are clear. All three require long periods of time, involve a large number of participants, and often require people from diverse places. Scheduling the meeting serves to coordinate the efforts of the participants.

By taking one further step, and scheduling meetings on a regular or "clocked" basis, the manager may substantially decrease the time he spends in making scheduling arrangements. The price, of course, is the risk of wasted time. There may be nothing of importance to discuss and certain participants may have more important work to do elsewhere.

The scheduled meeting is further characterized by the flow of incidental information during its early and late stages. Because of this, scheduled meetings assume a special significance. In effect, 

---

11 Note from the data of Figure 12 in Chapter IV that Dr. Knowles and Dr. Brown, who had substantially higher incidences of clocked meetings, spent much less time scheduling their activities.
one's desire to keep generally informed is satisfied in part to the extent that one can have frequent scheduled meetings with a diverse group of informed people. For at these meetings much interesting and important gossip is exchanged as the light discussion takes place. This fact might encourage the manager to prefer scheduled meetings, and might encourage subordinates to attempt to have themselves included at as many of these meetings as possible.

Because of this flow of incidental information and because of the manager's general preference for verbal contacts, a question could be raised about differing treatment of subordinates. Those working in the vicinity of the manager have the opportunity of attending many meetings with him. Executives in nearby cities have the opportunity for frequent verbal, but not face-to-face, contact. But those far away, overseas for example, must communicate via the mails. Thus, one would expect executives in close proximity to be best informed, and those beyond the reach of the routine telephone call to be less well informed about current issues facing the organization. They are forced to use a medium (the mail) for which the manager has little regard.\(^\text{12}\)

\(^\text{12}\)President Henshel recounts an interesting story which highlights the differences between face-to-face and documented communication. At head office a number of people had developed a dislike for a Swiss employee. She used the word "demand" instead of "ask" in her memos. Only when she visited the head office in New York did the problem become resolved. In face-to-face contact, it became clear that she was simply using the word that seemed most appropriate to her. The verb "to ask" in French is "demander".
Visual Communication: The tour provides the manager with a unique opportunity. He can see what goes on in his organization without making any scheduling arrangements and without subordinates taking precautions because they expect him. Furthermore, the contacts that he makes during a tour are completely informal. Contrast the manager stopping a man in the halls to mention something to him, with the manager telephoning or making a formal appointment to see him.

The surprising feature about this powerful tool is that it seems to be used so infrequently. Managers appear hesitant to leave their offices unless they have a specific purpose for doing so. They recognize the value of the tour, and they cite instances of important discoveries made during their strolls through their organizations. Nevertheless, in the study they spent only three percent of their time touring.13 Perhaps this can be explained by a lack of time, or perhaps by the manager's tendency to gravitate toward concrete, well-defined activities.

To summarize, the manager demonstrates a strong preference for the verbal media of communication. He seems to dislike using the mail, and consequently it is used primarily for formal correspondence and for lengthy documents. The informal means of communication — the telephone call and the unscheduled meeting — are used to transmit

13 Only General Gavin made a practice of open-ended touring during the week of observation.
pressing information and to deliver informal requests. Scheduled meetings are also used to deliver information and requests, especially when formal issues are involved, but the scheduled meeting is also used for the long, populous events, notably those involving ceremony, strategy-making, and negotiation.

One further point merits emphasis. Unlike other workers, the manager does not leave the telephone or the meeting to get back to work. Rather, these contacts are his work. The ordinary work of the organization -- producing a product, undertaking research, serving a client, even conducting a study or writing a report -- is seldom undertaken by its manager. The manager's productive output can only be measured in terms of verbally transmitted information.

5.6 Self-Control Despite Obligations

This chapter opened with contradicting quotations by two well-known students of management. To Peter Drucker, the manager is the omnipotent conductor; to Sune Carlson, the manipulated puppet.

To what degree does the manager control his own affairs? Two sets of hard data appear to provide a means of measuring self-control:

Initiation: During the five weeks of study, 32% of all verbal contacts were ostensibly initiated by the manager, while the majority -- fifty-seven percent -- were initiated by the opposite party. The remainder were initiated mutually or by the clock. Of the 890 pieces of mail studied, the manager sent only 231 of them, or
twenty-six percent, and almost every one of these was sent in reaction to one of the 659 pieces received. These data suggest that the manager controls less than one-third of the activities in which he engages.

**Active and Passive Purpose:** Another possible means of assessing the manager's degree of self-control involves establishing a continuum along which activities may be classified as active or passive. This might be formed as follows:

<table>
<thead>
<tr>
<th>Passive</th>
<th>Active</th>
</tr>
</thead>
<tbody>
<tr>
<td>status requests, solicits</td>
<td>authority and action requests</td>
</tr>
<tr>
<td>ceremony</td>
<td>information requests</td>
</tr>
<tr>
<td>review, scheduling, external board work</td>
<td>strategy, negotiation</td>
</tr>
<tr>
<td>informing and touring</td>
<td>manager requests</td>
</tr>
<tr>
<td>Proportion of verbal contacts</td>
<td>5% 17% 6% 14% 27% 7% 12% 12%</td>
</tr>
</tbody>
</table>

This chart, although crude, gives, what some might consider, an indication of the extent of self-control. The group headed by "review" and comprising 27% of the verbal contacts can be considered neither active nor passive. To the left of this group are forty-two percent of the verbal activities, which have been classified along a passive scale, and to the right, 31%, which have been classified as active. Thus, again, the manager appears to control fewer activities than do those around him.
Thus, there is evidence to support the thesis that the manager is unable to decide on the majority of his own activities. The telephone rings, the calendar pad calls for a battery of meetings, subordinates drop in, problems arise unexpectedly, and underlying all this is the constant fear of falling behind on the processing of mail. Surely the job is designed to swallow the weak man and cage the strong one.

But, do the figures tell the true story? Do the facts that many of the manager's meetings are not set up at his request, that he receives more mail than he generates, that requests are more often made of him than by him, indicate that the manager cannot control his affairs?

Status requests are never self-initiated, yet their frequency may be a good measure of the self-developed status of the manager. The number of authority requests, also externally initiated, may reflect the manager's control over organizational decision-making. The extent to which meetings are set up by others or by the clock may be a measure of the manager's organizing ability, and the quantity of unsolicited information received from various places may measure his ability to build effective lines of communication. The holding of strategy sessions may indicate that a process has gone out of control, but it may also indicate that opportunities are being exploited.
Thus, the following conclusion is drawn: Managers may be depicted as conductors or puppets to the extent that they do or do not take advantage of the obligations they are forced to meet. This may be restated as follows: The work of managing an organization involves a number of commitments that eliminate most of the "free time". Furthermore, a cursory examination of managerial work appears to indicate that the manager cannot control much of his day-to-day activity; that is, he seems to spend most of his time satisfying the needs of others.

However, a more careful examination of the manager's work indicates that he has two important degrees of freedom: (1) He is able to make the set of initial decisions that define many of his long-term commitments. Thus, he can choose to join an external board of directors, although once done, the activities are largely planned for him. He can initiate a study or program although it may demand his time, on and off, for years. He has the power to develop his own information channels, although once done, ostensibly he does not control the day-to-day information that flows to him. This point indicates the importance of the decisions taken in the early years in a new managerial job, and the long-term effects that seemingly mild commitments can have.

(2) The manager exerts his own will by controlling or using for his own ends those activities in which he must engage. A ceremonial occasion provides the shrewd manager with an opportunity for
collecting information. A request for authorization allows him to inject his values into the organization. An obligation to speak provides an opportunity to lobby for a cause. A problem may be more than simply solved and a pressure may be more than simply removed. Steps may be taken to turn problems into opportunities by exploiting new ideas in their solution.

Perhaps, it is these two factors which most clearly distinguish successful and unsuccessful managers. All managers appear to be puppets. Some decide who will pull the strings and how, and they then take advantage of each move that they are forced to make. Others, unable to exploit this high-tension environment, are swallowed up by this most demanding of jobs.

5.7 A Note on Manager Differences

Although each of the five men was observed for a period of only one week, the results indicate that there were remarkable similarities in their work activities. For the most part, each was active in each of the areas that were categorized. For example, each man interacted with the same groups of people. Each man formally reported to a board of directors (even if it was not specifically called that), each dealt with a number of trade organizations, each interacted with suppliers and some equivalent of clients, each found it necessary to deal directly with the federal government, each interacted with peers and independents, and each received periodical information from publishers.
Not only did the five men seem to do the same kinds of things, but they also seemed to do most of them in the same general proportions. Strong similarities appeared, for example, in the following: the frequency of documented and verbal contact with subordinates, the quantity of mail on internal operations, the frequency of desk work sessions, the number and duration of telephone calls, the proportion of time spent in scheduled meetings, the proportion of activities lasting less than nine and more than sixty minutes, the quantity of self-initiated mail, the proportion of mail that was designed to reply to written requests, the size of meetings, the proportion of activities initiated by contacts, the location of activities.

Thus, it may be argued that, by and large, senior managers appear to do the same kinds of work in the same approximate proportions, no matter what may be their personalities and the nature of their organizations. The results of the research further suggest that a given manager will engage in most of the various kinds of managerial activities in any given week. Thus, in terms of the kinds of work performed (not in terms of specific content), one might not expect great variations from week to week.

Despite the strength of the similarities, there is much to learn from the differences that appeared. It should first be noted that some of these differences, although interesting to analyze, do not alter significantly the general conclusions. For example, the two chief executives of the non-profit organizations had more frequent
verbal contact with the directors of their organizations (11% and 14% of contacts vs. an average of 6% for all five men), yet the fact remains that for all five men most contacts were with subordinates, and the remainder were distributed among a wide variety of groups. To cite another example, one man clearly preferred short scheduled meetings (average duration of 40 minutes) and another preferred long meetings (average duration of 98 minutes). Nevertheless, the fact remains that, compared to other media, scheduled meetings were of far greater average duration in each of the five cases.

A few of the differences were substantial. A very great proportion of one man's mail consisted of periodicals, and this man spent substantially more time than any of the others in "negotiation" sessions. Another man spent much of his time with clients, and one man had very frequent unscheduled contact with subordinates.

The differences that do not appear to be random are listed below. These lists are followed by a brief analysis.

James M. Gavin = Arthur D. Little, Inc. (business service organization)

shorter scheduled meetings (40 minutes vs. 68 minutes)\(^{14}\)
more tours (12 vs. 6)
more letters initiated (15 vs. 5)
greater proportion of = time in desk work (38% vs. 22%)
= output mail as letters and memos forwarded
into organization (27% vs. 15%)

\(^{14}\)The first figure is the average for the manager; the second figure is the average for all five managers.
- input mail from clients (11% vs. 5%)
- input mail dealing with progress of internal operations (30% vs. 18%)
- output mail to clients (22% vs. 7%)
- output mail acknowledging or replying to verbal contact (18% vs. 6%)
- contact time with co-directors (19% vs. 5%)
- contacts and contact time with clients (8% vs. 2%; 9% vs. 3%)
- self-initiated contacts (52% vs. 32%)
- contacts and contact time in subordinates' offices (27% vs. 10%; 18% vs. 8%)
- contacts to give information (14% vs. 10%)
- activities lasting longer than 60 minutes (5% vs. 10%)
- input mail as reports (12% vs. 25%)

Bernard J. O'Keefe - EG & G, Inc. (business technological organization)

fewer tours (none vs. 6)
greater proportion of

- mail skimmed (63% vs. 31%)
- mail from suppliers and associates (14% vs. 8%)
- mail from government (9% vs. 3%)
- mail as periodical news (42% vs. 15%)
- contacts as telephone calls (49% vs. 36%)
- scheduled meetings with more than four participants (43% vs. 34%)
- contacts with co-directors (15% vs. 5%)
- contacts and contact time with suppliers and associates (20% vs. 9%; 48% vs. 17%)
- contact hours in conference or board rooms (28% vs. 14%)
- contacts and contact time in strategy-making (13% vs. 6%; 24% vs. 13%)
- contacts and contact time in negotiation (5% vs. 1%; 36% vs. 8%)

smaller proportion of
- input mail as letters and memos (15% vs. 29%; 1% vs. 10%)
- input mail from subordinates (21% vs. 39%)
- mail reacted to (1:7 vs. 1:3)
- output mail as memos, reports, clippings, and periodicals forwarded into organization (0% vs. 9%)
- contacts and contact time in ceremonial work (0% vs. 6%; 0% vs. 12%)
- contacts and contact time in information processing (21% vs. 36%; 11% vs. 40%)
more input mail reacted to (65 pieces vs. 39)
longer unscheduled meetings (24 minutes vs. 12 minutes)
greater proportion of - input mail as letters (40% vs. 29%)
  - input mail from peers (31% vs. 16%)
  - input mail from trade organizations (20% vs. 9%)
  - input mail dealing with events (12% vs. 8%)
  - input mail as general reports (18% vs. 8%)
  - output mail directed at trade organizations and independents (12% vs. 5%; 9% vs. 5%)
  - output mail as forwarded documents other than letters (27% vs. 14%)
  - scheduled meetings with only two participants (69% vs. 44%)
  - contacts with directors (14% vs. 6%)
  - contacts and contact time with peers and trade organizations (10% vs. 3%; 28% vs. 11%)
  - contacts with independents (18% vs. 9%)
  - meetings as clocked (15% vs. 7%)
  - contacts in the hall (7% vs. 3%)
  - contacts in conference and board rooms (8% vs. 3%)
  - contacts to receive status requests and solicitations (11% vs. 5%)
  - contact time dealing with information processing (60% vs. 40%)
smaller proportion of - input mail as periodicals (6% vs. 16%)
  - input mail dealing with internal operations (8% vs. 18%)
  - output mail to suppliers and associates (0% vs. 3%)
  - output mail as forwarded letters (8% vs. 18%)
  - contacts as unscheduled meetings (14% vs. 27%)
  - contacts and contact time with suppliers and associates (1% vs. 9%; 3% vs. 17%)

more hours worked (53 hours vs. 40 hours)
more desk work sessions (54 vs. 36)
longer scheduled meetings (98 minutes vs. 68 minutes)
more tours (11 vs. 6)
more time in verbal contact and more verbal contacts (42 hours vs. 32 hours; 106 vs. 74)
more unscheduled meetings (55 vs. 20)
longer contacts with peers and trade organizations (3.2 hours vs. 1.6 hours)
greater proportion of - input mail from suppliers and associates
(13% vs. 8%)
- output mail as memos (30% vs. 19%)
- output mail as replies to information received (18% vs. 10%)
- output mail as requests delegated to subordinates (16% vs. 8%)
- contact time with independents and others (21% vs. 9%)
- contacts for scheduling purposes (22% vs. 15%)
- contacts and contact time receiving information
  (24% vs. 14%; 29% vs. 16%)
smaller proportion of - contacts scheduled (17% vs. 29%)
- scheduled meetings with only two participants (28% vs. 44%)
- contacts with directors (0% vs. 6%)
- clocked meetings (3% vs. 7%)
- contacts and contact time giving information (4% vs. 10%; 5% vs. 8%)

Charles E. Brown - Newton School System (public service organization)

more time in evening meetings (11 hours vs. 5 hours)
less input mail per day (22 pieces vs. 36 pieces)
more scheduled meetings (30 vs. 21)
greater proportion of - time in scheduled meetings (75% vs. 59%)
- input mail as letters (43% vs. 29%)
- input mail from subordinates (62% vs. 39%)
- input mail from government (12% vs. 5%)
- input mail as status requests (30% vs. 12%)
- input mail as authority requests (12% vs. 5%)
- input mail as advice on situations (14% vs. 6%)
- output mail directed at subordinates (67% vs. 55%)
- output mail directed at government (23% vs. 7%)
- output mail as replies to written requests (51% vs. 32%)
- contacts and contact time with directors (11% vs. 6%; 17% vs. 7%)
- contacts and contact time with clients (6% vs. 2%; 10% vs. 3%)
- contacts and contact time in ceremony (10% vs. 6%; 25% vs. 12%)
- contacts and contact time in strategy-making
  (10% vs. 6%; 22% vs. 13%)
smaller proportion of - time in unscheduled meetings (3% vs. 10%)
- input mail as reports (1% vs. 8%)
- input mail as periodical news (3% vs. 15%)
- output mail directed at peers (2% vs. 17%)
- output mail directed at suppliers and associates (0% vs. 3%)
- output mail as forwarded letters (9% vs. 19%)
- output mail as information forwarded to subordinates (7% vs. 23%)

The differences in work activities among each of the men studied are analyzed below. It should be borne in mind that this analysis is based on one week of observation. Therefore, it serves, not so much to develop definitive conclusions on the work of five chief executives, as to indicate the kind of analysis that may result from "structured observation".

**General Gavin:** Compared to the other four executives, General Gavin exerted far more control over his activities, taking more tours, initiating more letters and more contacts. Furthermore, he spent more time with external contacts, particularly clients and co-directors, and he corresponded frequently with clients. He sent a greater part of his mail into the organization than did the others.

Two factors enter into the analysis of these differences — General Gavin's reputation, and the existence of a President at Arthur D. Little who reports to General Gavin, the Chairman and chief executive officer. Most likely, the President involves himself more deeply in internal information-handling, problem-solving, and strategy-making, and, therefore, the chief executive has free time to initiate more of his own activities, to spend more time touring, and to develop, maintain, and use his system of contacts. General Gavin is clearly the organization's contact man. He builds and maintains
his system of contacts by participating actively on external boards
of directors and by reacting to status requests. Furthermore, he
extends this system by developing his reputation. Thus, for example,
his role as critic of U.S. military strategy influences his activities
at Arthur D. Little.

By doing these things, General Gavin is better able to develop
rapport with clients and with well-informed friends. These people
give him information — some of it concerning possible contracts for
Arthur D. Little — that he forwards into his organization. The value
of General Gavin's reputation to the organization can be seen in other
ways. Prospective clients are brought to meet him; he participates
in certain contract negotiation sessions; certain important letters
are sent out with his signature.

The quantitative differences point to two other characteristics
of General Gavin and his organization. There is clear evidence that
he prefers very short contacts. His scheduled meetings are brief, and
few of his activities last longer than sixty minutes. This pronounced
preference for brevity might be largely a matter of personal style
(perhaps this preference relates to his military background). 15
General Gavin receives much mail dealing with internal operations.
In part, this is so because he maintains close watch on a number of

15 General Gavin's secretary commented on this characteristic
when I first began my research at Arthur D. Little.
contracts in which he is personally involved. Also, one would expect that a management consulting firm would emphasize formal internal communication -- operating reports, periodic briefings on programs, and so on.

**President O'Keefe:** The work of President O'Keefe of EG & G was characterized by great emphasis on strategy and negotiation. Much time was spent for these purposes in large meetings, often with suppliers and associates, and held in conference or board rooms. In fact, the company was, at the time of the study, deeply involved in an expansion program, and the President spent a very great proportion of his time (1) working out acquisition and negotiation strategies with his staff, (2) negotiating with people on acquisitions, and (3) making associated arrangements concerning expansion financing.

President O'Keefe engaged in no internal touring or ceremony; he forwarded little of his mail into the organization; and he spent little time solely for purposes of verbal information transfer. These characteristics may be attributed in part to a lack of time due to his efforts in the expansion program. However, considering that he received little mail from his subordinates, the suggestion can be made that this organization places less emphasis on internal communication than do the other organizations.

The same cannot be said for external communication. There was much mail from suppliers and associates (much of this dealing with acquisition activity), and much from the government (because the
technological nature of the industry makes the government a key client and participant in the company's affairs). President O'Keefe received a great number of periodicals, and this fact may be explained by a rapidly changing environment -- the President is forced to keep abreast of new technology and of events in the industry. Finally, the high incidence of contact with co-directors is explained by President O'Keefe's executive position in the Greater Boston Chamber of Commerce.

Finally, one might note that President O'Keefe skimmed much of his mail. As his secretary noted, he regards himself as a rapid reader.

Dr. Knowles: The differences listed under Dr. Knowles' name appear to be rather diverse. However, a close examination indicates that they may fall into three main groups:

(1) Due to the particularly high status of both the Massachusetts General Hospital and its director in the medical profession, Dr. Knowles is required to interact frequently with peers and trade organizations. Many status requests are made of Dr. Knowles and a large number of trade publications are submitted to him for review. No doubt, all hospital administrators receive a large number of status requests from members of the communities that they serve. Furthermore, there appears to be a well-developed communication system in the hospital community, particularly with regard to the
distribution of medical reports. The prestige of Dr. Knowles and his hospital serves to magnify these characteristics.

(2) The internal workings of this organization (no doubt, hospitals in general) are characterized by a very high level of internal democracy. The professional staffers are highly trained, high-income individuals who conduct many of their affairs as they alone see fit. They are more prone to resist the formal authority structure, than they are to be influenced by it. In simple terms, there tends to be much internal "political" activity, and this influences the chief executive's work. His unscheduled meetings are longer — people who drop in must be allowed to state their cases. Furthermore, the flow of documented information is less dense, while verbal information flows more freely. (Information related to organizational politics is seldom documented.) Thus, one finds in this organization a high frequency of meetings in the hall, a high frequency of two person meetings (tête-à-tête's), a large proportion of the verbal contact time devoted to information processing, and little mail concerned with internal operations.

(3) The similarities between the hospital and the school system with regard to a number of factors, such as the frequency of clocked meetings and of contacts with directors, suggest the existence of a number of dissimilarities between business and public service organizations. These are discussed in the section on Dr. Brown.
President Henshel: President Henshel of the Bulova Watch Company spent a far greater amount of time at his desk, and engaged in much more informal activity (i.e., unscheduled meetings) for purposes of receiving or giving information.

Of the five organizations in which research took place, this is perhaps the one that finds itself in the most dynamic competitive environment. Competitor actions must be continually monitored to detect events -- a new advertising program, the marketing of a new product, a price cut -- that might signal the need for an immediate readjustment of strategy.

As a result, the prominent characteristics of the organization are flexibility and informality, and the organization equips itself with a chief executive who spends much of his time receiving information, particularly "instant communication". Much of this is transmitted by subordinates who have ready and informal access to the chief executive through the medium of the unscheduled meeting. Furthermore, President Henshel seems to take many tours during which information is transmitted, and he appears to spend much time interacting with external contacts for the purpose of trading current industry information.

It would appear that informality has become a way of life at Bulova. The unscheduled meeting was used frequently even when the information to be transmitted could easily wait. For example, in a number of cases, a subordinate who developed an idea came unexpectedly
to the office of the President to tell him about it. He did not schedule a meeting or transmit the idea in memo form.

It is interesting to note that at this organization, which is characterized by informality, the chief executive spent a good deal of time scheduling his activity. This allocation of time may be contrasted with that of the chief executives of the two public service organizations. They attended a much larger number of clocked meetings and spent little time scheduling their activity. Thus, as might be expected, President Henshel pays the price of informality. To coordinate his efforts with those of his executives, he must devote a certain share of his time to making scheduling arrangements with them. If meetings were regularly scheduled (i.e., clocked), the activities of the executives would automatically be scheduled and coordinated.

Two other points might be noted. At the time of the study, Bulova lacked a vice-president of marketing, and the President assumed that role. Perhaps this explains why President Henshel spent such long hours at work, many of which were devoted to scanning marketing reports. Finally, the length of his scheduled meetings appears to reflect President Henshel's enjoyment of discussion, and his desire to seek information whenever and wherever possible.

Dr. Brown: Dr. Brown's activities were in direct contrast to those of President Henshel. His work was characterized by greater formality. There was a high incidence of scheduled and clocked
meetings. Many of these took place in the evenings. Many meetings were with clients and directors, and many were devoted to ceremony and strategy-making. Furthermore, Dr. Brown received a large number of status and authority requests in the mail.

Perhaps it might be argued that public organizations adopt formalized patterns of behavior because of the complex system of forces in which they find themselves. While President Henshel may have to answer occasionally to powerful shareholders, Dr. Brown is continually dealing with the Mayor of Newton and other municipal authorities, the State educational department, the School Committee, the Parent-Teachers Association, individual parents, and individual town residents. Certain kinds of informal behavior might lead to communication problems where formal behavior might not. Thus, in Dr. Brown's work there were more scheduled meetings, more clocked meetings, more formal authority requests, and a tendency to present analysis in the form of printed reports. Furthermore, one would expect that the chief executive of the public organization would have to make himself available to the wide variety of groups concerned with the organization. In line with this, Dr. Brown received more status requests and more of his mail was designed to reply to these requests. Also, he spent more time with clients (i.e., parents). At the hospital, which may be considered a quasi-public organization, Dr. Knowles' work exhibited the same tendencies, particularly with regard to the frequency of written status requests and the frequency of scheduled and clocked meetings.
The work of Dr. Brown and Dr. Knowles was characterized by relatively frequent contact with the organizations' directors. This can be compared with the small amount of time the managers of the three non-public organizations spent with their directors. It would appear that the role of the director in overseeing activity and relating it to the wishes of member groups is somewhat more significant in the public organization. Aside from a well-defined group of owners and employees, few people would be directly concerned if Bulova, EG & G, or Arthur D. Little makes a serious mistake of strategy. Aside from customers who seek economic products and services, relatively few people stand to gain directly from these organizations, and those who do are not in conflict — they all seek financial gain. In contrast, the public of the city of Boston, the medical profession that looks to the prestige hospital, and the Harvard Medical School, all are deeply concerned in special ways about the decisions taken at the Massachusetts General Hospital. At the Newton School System, the concerns are even more pronounced. The municipal politicians, the parents, state government officials, and a variety of others, all look very carefully over Dr. Brown's shoulder. The decisions that he takes in his organization affect the quality of education of a community of students who, for the most part, have no alternative source of formal education. The School Committee (or Board of Trustees at the Hospital) attempts to reflect the diverse and pronounced concerns of these groups; therefore, it interacts more frequently with the chief executive.
Some other points may be noted. Because Dr. Brown was observed during the last week of the school year, his input mail was light, and he participated in a number of ceremonial activities related to the year-end (e.g., retirement dinners). Finally, one might note the quantity of mail Dr. Brown sent to and received from governments. In a school system that receives research and operating funds from various federal and state agencies, this quantity of mail is to be expected.

Conclusions: The analysis of the differences between these five men and their organizations is far from conclusive in any sense. This research was not designed to compare or classify different types of managers or managerial environments. Rather, the objective was to determine the common features in the work of managers.

Nevertheless, the above analysis does serve to highlight three points:

1. The differences in the work of managers can be easily explained in terms of the managers' backgrounds and styles, and in terms of the characteristics of their organizations and the environments of these organizations.

2. Much can be learned about the nature of an organization, its power structure, and its environment by studying the work of its chief executive officer.
3. Specifically, the analysis of the public versus the private organizations indicates that "structured observation" is a powerful tool for comparative research. For one thing, it provides quantitative criteria to define differences between various kinds of organizations.
CHAPTER VI

REDEFINING THE MANAGER’S ROLES

The centipede was happy quite
Until a toad in fun
Said, "Pray, which leg goes after which?"
That worked her mind to such a pitch,
She lay distracted in a ditch,
Considering how to run.

Mrs. Edward Craster\(^1\)

What roles does the manager play in his organization? The answer to this question is very basic to the study of management, yet the literature of management does not provide very adequate answers.

As discussed in Chapter II, only one answer continues to appear in the literature. This view of managerial "functions" was developed by Henri Fayol at the turn of the Century, and was labeled "POSDCORB" by Luther Gulick in the 1930's.\(^2\) POSDCORB stands for planning,

\(^1\)Credited, in Cassell’s Weekly, to Pinafore Poems (1871).

\(^2\)This and subsequent material was developed and referenced in Chapter II, Section 2.1.
organizing, staffing, directing, coordinating, reporting, and budgeting. These words have permeated the field of management to such an extent that today they are widely accepted without question as the management functions. Textbook writers still use them to describe managerial work; management analysts turn to them as a basis for analysis; managers themselves tend to define their functions in these terms.

Despite its widespread acceptance, POSDCORB has been strongly criticized for a few basic reasons. The words of POSDCORB are vague, they simply label those aspects of the manager's job that have never been explained. It seems reasonable to expect that a manager should somehow "coordinate" the parts of his organization, but what other meaning does the word convey? What does a manager actually do when he performs the coordination functions? And while the dictionary can distinguish between "coordinating" and "planning", can the manager do so in his day-to-day activity? In fact, empirical researchers have been unable to develop any meaningful relationships between many of the words of the POSDCORB and actual managerial activity. POSDCORB defines certain vague objectives of managerial work; it does not provide much insight into managerial roles.

Clearly, there is a need to find better words to describe the roles that the manager plays in his organization. The description of these roles should be designed to serve the needs of research and
and management science, and should be derived from empirical research. It should be possible to relate the set of roles back to all observable managerial activity.

The analysis proceeds from the categorization of managerial activity presented in Chapter IV. It was suggested there that any managerial activity can be placed into one of the following categories:

**Input Mail**

Acknowledgement

Status Request
Authority Request (to approve action)
Solicitation

Reference Data
General Report
Periodical News
Event
Report on Operations
Advice on Situation
Problem or Pressure
Idea

**Output Mail**

Acknowledge Mail
Reply to Written Request
Reply to Information Received
Forward Information to Subordinate
Forward Request to Subordinate (delegate)
Write Third Party re Mail

Acknowledge or Reply to Verbal Contact
Write Report
Originate Letter or Memo
Verbal Contact
Organizational Work
Scheduling
Ceremony
External Board Work

Status Request or Solicitation
Action Request (to approve action, to give information or advice, to take action)
Manager Request (to give information or advice, to take action, to follow up)

Observational Tour
Receiving Information ("instant communication", briefing, etc.)
Giving Information ("instant communication", plans and policies, advice)
Review (with deputy, functional group, personal contact, board of directors, etc.)

Strategy-Making
Negotiation

A series of plausible explanations were sought to account for the manager's involvement in each kind of activity listed above. A given activity may have one clear purpose. For example, a manager may give information to a subordinate simply to inform him of an event. Other activities may have a number of purposes. Why, for example, would a manager receive a request for authorization?

1. As the highest formal authority in the organization, the manager must implicitly assume responsibility for all decisions taken in the organization. If a subordinate is concerned about the possible failure of an action, he may seek the manager's prior approval.

3"Instant communication" is a term used in Chapter IV to refer to very current information -- usually rumour or gossip -- transmitted very quickly to the interested party.
2. The manager is charged with the allocation of organizational resources. To control the process, he may decree that all major resource requests must meet with his prior approval.

3. Being the most informed member of his organization, the manager may insist on his personal involvement in the making of every major decision. In this way, decisions taken in different parts of the organization can also be interrelated.

4. To keep himself informed on the activity of his organization, the manager may request that all decisions first be approved by him.

5. Managers specialize in non-routine work. Decisions that are non-routine, therefore, gravitate to the specialist.

By undertaking this type of analysis of each kind of activity and by collecting these explanations into common sets, a description of managerial roles was developed.

This description is visualized in Figure 19. It includes thirteen roles, which fall into three groups — status roles, information-processing roles, and strategy-making roles. The thirteen roles are described in detail after they are summarized below:

The manager is given formal authority in his organization, and this gives rise to a number of duties, including the requirement to perform as figurehead. It also enables the manager to play the role of activator, that is, to motivate the members of his organization. Furthermore, the status associated with authority enables the manager to be the organization's contact man, that is, the personal link to outside persons of status.
The arrows indicate which roles enable the manager to play a particular role.
As the generalist among a group of specialists, with broad authority, the manager assumes the position of nerve center of organizational information. He enhances this position by exploiting his role as contact man, a role that enables him to communicate with the nerve centers of other organizations. He uses his information as disseminator, to inform his subordinates; as spokesman, to inform outsiders; as expert, to give special advice on issues related to his industry; and as value determiner, to combine and develop statements of organizational preference.

With his authority and his special knowledge of organizational affairs and values, the manager assumes charge of strategy-making activity. In essence, he is the organization's resource allocator, scheduling his time and determining organizational priorities, choosing subordinates to whom he delegates responsibility for some developmental activity, maintaining the authority to approve other developmental activity and important exceptions, and supervising the most important and most sensitive developmental activity. As entrepreneur, the manager causes the initiation of much of this developmental activity. The manager also allocates resources in his role as bargainer, as he leads important negotiations with other organizations. Finally, as crisis handler, the manager takes charge of severe conflict situations, which result in the establishment of important strategic precedents.
These managerial roles are discussed at length in the sections that follow. The anecdotal materials collected during the periods of observation are used to extend and illustrate the theory. Following the discussion of roles, a number of concepts of strategy-making in organizations are discussed.

6.1 The Status Roles

Four roles that relate to the status of the manager's position are discussed in this section.

6.1.1 Manager as Formal Authority:

The manager is, first of all and by virtue of the office that he holds, the formal authority in his organization. Formal authority gives rise to his power and his status, and to all the other roles that he performs. A number of consequential duties are associated with authority: (1) the manager must oversee the staffing of his organization, particularly at the levels closest to him. In addition, he must be concerned with the promoting and remunerating of his subordinates, and he must be prepared to assume other duties when a vacancy temporarily occurs.

In the absence of a vice-president, marketing, the president takes over direct responsibility for these duties in addition to his own. He must attend new meetings, process new information, directly supervise more subordinates.
When a senior man writes in search of a job, the manager interviews him because he looks promising. 4

(2) Being in a position of authority, the manager must take direct or indirect responsibility for all the actions of his organization. The "authority request" is one means by which subordinates can insure that the manager's approval on a decision or an exception has been sought and granted.

A subordinate asks if there should be a policy on the number of executives allowed in the new company airplane at one time.

A manager is asked if the organization can sponsor a trip a staffer wishes to take during his vacation to tour a well-known organization in the U.K. doing similar work.

(3) The highest authority in the organization must make himself available to (in the words of one of the men studied) "those whose feeling is that the only way to get something done is to get to the top."

A distraught parent telephones the superintendent to complain about a teacher and, afterwards, the superintendent comments: "As you can see, it is something I don't get involved in except to call the principal and say she called me."

4To illustrate the theory, anecdotal materials that were recorded during the observational research are presented in this format throughout the chapter.
A hospital chief calls the general director to complain that the ladies auxiliary has taken one of his rooms.

The chief executive is asked to speak to a group of volunteers, with the comment: "I want them to know that this is a policy clearly endorsed by you."

(4) Finally, the manager must stand between his organization and the power groups that ostensibly control it.

The chief executive meets with the board of directors, in part to provide the directors with the opportunity to raise issues that concern them. In addition, he approves a shareholder letter before it goes out of the organization, and he writes a year-end report to the directors.

6.1.2 Manager as Figurehead

A number of other activities require the participation of the manager, not because of his expertise, but simply because of the status of his position. In effect, the manager participates as figurehead, as the symbol of organizational authority: (1) He signs documents because the law requires it, because the organization expects it, or because his signature adds credibility to a letter written by someone else.

Awaiting the managerial signatures are diplomas for graduating nurses, cost forms to be submitted to the government, letters of appreciation to retiring employees, and proposal letters to clients.
(2) A variety of people approach the manager with "status requests" -- inconsequential requests made because of the manager's status. In addition, the manager is approached by salesmen who wish to enlist his support in order to sell something to the organization.

Free merchandise is requested in a letter to "The President". A peer asks the general director to insure that a relative receives good care in the hospital. A trade organization writes to ask the manager to make a speech to a group. A salesman, claiming to be an old friend, schedules a meeting with the manager and attempts to sell his soap product.

(3) The manager may attend certain meetings only because his presence or the fact that certain words come from his mouth causes certain participants to perceive the meeting as being more important. Similarly, the manager deals with certain important customers.

The manager attends a meeting in which certain members of his organization are holding discussions with members of another firm. The strategy has been worked out in advance; the chief duty of the manager is to make some opening comments.

(4) Finally, much of the social tradition of the organization is programmed in its ceremonial activity. In addition, the organization relates to certain others in a social or ceremonial way. The manager, as formal authority, is expected to preside at many of these ceremonial and social events.

The manager attends a year-end dinner, and he pays tribute to a retiring employee. He entertains major clients, receives visiting dignitaries, makes speeches to visiting groups.
6.1.3 **Manager as Activator**

The organization looks to its formal leader for guidance and motivation. In his role as activator, the manager defines the atmosphere in which the organization will work, whether it will be innovative or conservative, whether great stress will be put on employees to produce or attempts will be made to create a supportive environment. "The tone of the organization is usually sounded by its top executive, and the success of the enterprise may well depend on whether he infuses the whole hierarchy with energy and vision or whether, through ineptness or neglect, he allows the organization to stagnate."\(^5\)

The manager performs the role of activator in terms of a number of activities.

The manager receives a request for authorization, and by the nature of his answer, he inhibits or encourages a particular subordinate.

A subordinate turns to the manager for advice on a personal problem and for reassurance that his work is adequate.

The manager holds a review session with a new executive, in part to instill in him a feeling for the values of the organization and to encourage him in his new position.

The manager uses his authority in a memo to a subordinate: "I was thinking about the lead; wonder if we shouldn't follow up more aggressively."

\(^5\) Harbison and Myers, *op. cit.*, pp. 15-16.
During a tour of the organization, the manager calls on an employee who has been ill; he greets another employee, asks about his work, and compliments him on his achievements.

After listening to a presentation, the manager returns to his office and writes to the man who made the presentation. In effect, he is told "to keep up the good work".

In performing his role as activator, the manager must play the part of "meddler" in the organization. He must look for operations that are going astray, problems in need of attention, and subordinates who require encouragement. In effect, it is up to the manager to maintain a certain degree of alertness in the organization. The manager is able to play the part of meddler because he is not constrained by the well-defined bounds of authority in his organization. He is the only one in the organization with a very broad mandate — to put this another way, he is the only one who can meddle at will — and his activities clearly reflect this.

A manager picks up a copy of the company organ, and, noting a particular article, vows to speak to the editor. This is not what the newspaper is for, he comments.

Noting a company advertisement on the back of a magazine, the manager forwards it to one of his vice-presidents with the comment: "Notice we are still using this for advertising instead of PR... when do we get back on track?"

Having received a request for additional space, the manager takes an early-morning trip to the department concerned. Later he contacts the head of the department and tells him that if his people would arrive for work on time, they would be able to perform their work in the available space.
In line with the manager's role as *activator*, one cannot help but be impressed with the great power that the position gives the man. Subordinates appear to react energetically to subtle and sometimes even to inadvertent remarks made by the manager. Often, opinions appear to be interpreted as requests or even as orders.

This power gives the manager great control over operations. Even a relatively new manager should be able to quickly and effectively make his influences felt deep into his organization. However, it would seem that this power must also be handled carefully -- the manager is forced to guard his remarks for fear of misinterpretation.

6.1.4 Manager as Contact Man

The status associated with holding managerial office enables the manager to develop an array of personal contacts -- people outside the organization who are of stature and who have information. In an analysis of the leadership patterns in street gangs, Homans concluded: "the higher a man's social rank, the more frequently he interacts with persons outside his own group...social equals tend to interact with one another at high frequency."\(^6\)

The manager of an organization has no social equal within that organization, hence he interacts frequently with managers of other

---

\(^6\)Homans, *op. cit.*: p. 185.
organizations. By developing these unique contacts, which themselves are sources of important organizational information, the manager assumes the role of contact man.

The manager builds and maintains his system of status contacts through a variety of formal activities: (1) To some extent, organizations interact at the highest levels. Presidents speak to presidents. Often, the purpose of the interaction may be minor, but the interaction serves to develop the relationship between the two men.

The head of a large transportation system calls the chief executive of a consulting firm to request a copy of a published report.

A manager, upon reading in a magazine of the promotion of a peer, writes to congratulate him.

(2) Many of the acknowledgements that the manager receives and sends are designed simply to maintain contacts.

A chief executive calls an official of a foreign embassy to thank him for arrangements he made related to an overseas trip. It is suggested by the official during the conversation that the chief executive try to meet a member of that country's planning office who will be visiting the United States. A contract could result.

(3) Status requests are answered in such great numbers for the same reason — to develop and maintain the systems of contacts. Two of the men studied specifically talked of a policy of trying to answer all this mail, and one suggested that he does so "to make friends for the organization" and to "keep the channels open".
(4) A primary reason for the manager's participation in external board work is that it helps him develop this network of contacts. One man noted that the external boards use him as an expert, and he, in turn, develops contacts in the trade.

A manager returns from an external board meeting and quickly contacts two staffers. A comment made to him at the meeting has a bearing on a proposal that these staffers are developing.

(5) Many ceremonial events and the various conferences that the manager attends provide him with the opportunity to interact with peers.

At the annual dinner of the Seraphic Secretaries of America, attended by well-known chief executives and their secretaries, the manager sits with the publisher of a widely circulated business magazine.

(6) Finally, the manager develops his reputation, and thereby increases his potential for developing status contacts, by performing public service work.

General Gavin uses the word "exposure" when he relates his televised presentations to the Fulbright Hearings to his position at Arthur D. Little. The results of this exposure are frequently in evidence, as in his access to top governmental people in Washington and foreign capitals. Arthur D. Little does a considerable amount of consulting to governments.

Thus, the manager, by virtue of his authority and associated status, has the opportunity to develop a special kind of external information system. He links his organization to its environment,
using his array of contacts to further the intelligence of his organization. To develop this system, the manager makes a series of commitments — to join a board of directors, to react to all status requests, to do public service work, to attend social and ceremonial events. These commitments consume much time. For example, a surprisingly high proportion of the manager's output mail is devoted strictly to maintaining this system of contacts. But the manager must believe that the returns from this time investment more than justifies its cost.

6.2 The Information-Processing Roles

The manager's formal authority and his ability to develop contacts enable him to play the central role in the information system of his organization. Five roles are described in this section, one related to his intake of information and four related to his direct use of that information.

6.2.1 Manager as Nerve Center

There is strong indication that the manager serves, in a very real sense, as the focus or nerve center of organizational information. The following anecdotes illustrate this role.

A vice-president is forced to leave a negotiation session out west one-half hour early. Shortly after it ends, anxious to know the results, he calls across the country to the president, rather than a few miles away to negotiating colleagues. The president, who has just spoken with these
people, describes the outcome. Later, in reply to the comment, "So you are in Boston, they are both out west, yet you are in a better position to tell [the vice-president] what went on," the president comments: "I usually am."

Someone in need of organizational information who does not know where to turn will call the manager or his secretary. An outsider, who has been switched from one telephone extension to another, finally asks for the secretary of the chief executive. Afterwards, she comments on her role: "If they can't answer a question from any part of the organization, call Norma - she can answer it."

One chief executive comments after a meeting with a woman: "She didn't know where to go so she came to me."

A new executive innocently asks the chief executive what the organization policy is on "moonlighting." The next day the chief executive learns from his deputy that moonlighting has become common in a certain department. Putting together these two pieces of information, with his knowledge that the new executive and the head of the department in question are close friends, the chief executive realizes that the question was not as innocent as it appeared. He concludes that the new employee was trying to get information for his friend.

The manager demonstrates that he is better informed than any of his subordinates and that he has access to more information channels than they do. Furthermore, other people, seeking information, appear to realize these facts.

The nerve center role is easily explained with reference to the manager's position in the organization. With very few exceptions, every man in the organization is a specialist, charged with one area
of functional operations. The only true generalist in the organization, that is, the only one who is able to oversee all functions, is the manager of the organization. Although the manager may not know as much about any particular function as the specialist in charge of that function, he has broader knowledge about operations generally than any of the specialists. The reason is simply that each specialist in the organization feeds information concerning his specialty to the manager.

Thus, a variety of people turn to the manager when the information that they need involves more than one specialty, or no existing specialty, or when they don't know which specialist can satisfy their informational needs.

In addition, because the manager is the organization's contact man, he has access to the nerve centers of a variety of other organizations. For this reason, the manager is the focal point of external information. He has unique access to the best sources of environmental information, hence he is best informed about the organization's environment.

In two well-known studies, there was strong indication that very different kinds of leaders assume the role of nerve center. Homans analyzed a study of street gangs and concluded:

"...the higher a man's social rank, the larger will be the number of persons that originate interaction for him, either directly, or through intermediaries."
Since interaction flowed toward [the leaders], they were better informed about the problems and desires of group members than were any of the followers and therefore better able to decide on an appropriate course of action. Since they were in close touch with other gang leaders, they were also better informed than their followers about conditions in Cornerville at large. Moreover, in their positions at the focus of the chains of interaction, they were better able than any follower to pass on to the group decisions that had been reached. 7

At the other extreme, Neustadt analyzed the working habits of three American presidents, particularly with regard to power and information flow, and he concluded about one man:

The essence of Roosevelt's technique for information gathering was competition. "He would call you in," one of his aids once told me, "and he'd ask you to get the story on some complicated business, and you'd come back after a couple of days of hard labor and present the juicy morsel you'd uncovered under a stone somewhere, and then you'd find out he knew all about it along with something else you didn't know. Where he got his information from he wouldn't mention, usually, but after he had done this to you once or twice you got damn careful about your information." 8

All told, the manager is continually being bombarded with a wide variety of information from a wide variety of sources both inside and outside his organization. One man commented: "I have to sift about forty rumors every day." The information may be categorized into five groups:

7 Ibid., pp. 170, 187.
8 Neustadt, op. cit., p. 150.
A. **Internal Operations**: Information on the progress of operations in the organization, and on events that take place related to these operations come in many forms:

1. The standard operating reports and the functional review sessions serve to indicate trends in general operations, in particular functional areas, in ongoing programs, and in dealings with other organizations.

2. The manager receives ad hoc information on internal events through meetings with his deputy and other subordinates, through memos from subordinates, and through the requests made of him for authorization.

3. The consumers' reactions to products and services are assessed by reading the unsolicited letters they send the manager.

4. To a limited extent, the manager fills in informational gaps, and searches for problems, by touring his facilities to visit subordinates and to observe activity.

B. **External Events**: The manager seeks and receives information concerning clients, personal contacts, competitors, associates, and suppliers, and information concerning market changes, political moves, and developments in technology:

1. Through regular meetings and special telephone calls, the manager’s personal contacts keep him informed on various events and gossip of the trade. More information is gained during the informal discussions that precede meetings.

2. The organization acts as the manager's filter. Subordinates send information on external events; they forward letters to the manager; deputies carry "instant communication".

---

9 The term deputy, defined in Chapter IV, is used to refer to that member of the organization who tends to have very frequent, open-ended contact with the manager.
3. Trade organizations routinely feed the manager special trade information via printed reports and newsletters. These deal with the progress of legislation, the actions of other organizations in the trade, the standard policies to be adopted in the trade, and so on.

4. The manager subscribes to a wide variety of periodicals and thereby provides himself with a steady flow of information on events in the trade, in technology, in business in general, and in the world at large.

C. **Analyses:** Analyses and reports of various issues, solicited and unsolicited, come to the manager from various sources:

1. From time to time, the manager expresses an interest in a particular subject. In turn, subordinates provide him with clippings and reports on the subject.

2. Trade organizations, and other groups, send the manager reports they feel will interest the manager or his organization.

3. Frequently, the manager will request a report or briefing on factors associated with an upcoming decision. Outsiders, hired or retained because of a special expertise, and subordinates, develop this analysis.

D. **Ideas and Trends:** The manager uses a number of means to develop a better understanding of the trends in his environment, and to learn about new ideas:

1. Conferences, frequently sponsored by trade organizations, provide the manager with the opportunity to learn about environmental changes and new ideas.

2. Periodicals, and various reports from trade organizations, also serve this purpose. They report trends, innovations by other organizations, research findings, and so on.
3. From personal contacts, subordinates, and independents\textsuperscript{10} come a variety of specific ideas — a suggestion for a promotion, a lead for a contract, notice of a man who seeks employment, and so on.

E. \textbf{Pressures:} In addition to the usual types of information, the manager's channels also bring information in the form of pressures of various kinds:

1. Subordinates, seeking greater power and various changes attempt to influence the manager's decision-making process. A subordinate calls to say he would like a local man appointed to a vacant position. A letter jointly signed by eight senior executives argues that "the present committee structure does not seem to us adequate to help the senior executives] to deal with their enlarged responsibilities because it provides no mechanism for their joint participation in top level planning and policy making." They propose that new committees be set up.

2. Outsiders, who have a working relationship with the organization, make a variety of demands. Clients seek special arrangements; a charity organization writes to ask why no donation was made; a politician asks for a special favor.

3. At board meetings, the members of the board of directors express opinions about various issues and thereby attempt to influence the chief executive.

4. Finally, the public-at-large may become involved in certain issues. A letter addressed to "President, Bulova Watch Company" reads: "A group in Detroit has decided not to buy any Bulova watches because you used that anti-flag, anti-American pinko, Tony Randall upon your Thursday night TV show."

It is evident from the discussion to this point that the manager's advantage lies, not in the documented information which is widely available and which takes much time to process, but in the current,

\textsuperscript{10}"Independents" are defined in Chapter IV as those people with no relevant organizational affiliation.
non-documented information transmitted largely by word-of-mouth. As discussed in Chapter V, managers seem to indicate strong preferences for current information, for unsubstantiated information (i.e., gossip), and for information on events rather than on trends. The following comments in a memo to a chief executive are typical of this kind of information:

I hear via the grapevine that George will be transferred to Atlanta within a few months. I presume that he will be in charge of Wojecik's interests in the Atlanta area, but I will try to develop more information about this. In any event, this concern with special projects would indicate he might need our services from time to time. He has always been a good friend of ours and he should be a good man to know in the Wojecik organization.

These are the kinds of information that form the heart of the information system — the piece of gossip, the bit of "instant communication", the comment on an event — not the information carried in the formal reports. Because of this, the manager gets little analytical help in the design of his information system. In part, the system must design itself — subordinates automatically send information to the manager. In addition, the manager must fill in the gaps, by developing his own contacts and by establishing communication channels within the organization.

---

11 See Section 5.3, particularly the discussion of "instant communication".

12 See Section 5.4 on the means by which the manager designs his information system.
It is interesting to note that the internal information channels do not coincide with the formal lines of authority. The manager needs certain kinds of information, and he has no qualms about bypassing executives (or training subordinates to bypass their superiors) to get it. Burns has written that "the accepted view of management as a working hierarchy on organization chart lines may be dangerously misleading. Management simply does not operate as a flow of information up through a succession of filters, and a flow of decisions and instructions down through a succession of amplifiers."\(^{13}\)

An apt conclusion to this discussion is provided by a comment of Richard Neustadt:

> It is not information of a general sort that helps a President see personal stakes; not summaries, not surveys, not the bland amalgams. Rather, it is the odds and ends of tangible detail that pieced together in his mind illuminate the underside issues put before him. To help himself he must reach out as widely as he can for every scrap of fact, opinion, gossip, bearing on his interests and relationships as President. He must become his own director of his own central intelligence.\(^ {14}\)

The manager spends a great amount of time collecting information, some of it to be used in strategy-making, and much of it to be used directly. The diagram below shows that the manager may transfer

\(^{13}\)Burns, *op. cit.*, 1957, p. 60.

\(^{14}\)Neustadt, *op. cit.*, p. 147 (underlining added).
information in three basic ways — from environment to organization, from organization to environment, and from subordinate to subordinate. (Another channel, which appears to carry less information, is from one outsider to another.)

At the simplest level, the manager acts as a pure transfer mechanism, receiving and storing a variety of information as a library would, and transferring it to various parties. On a more sophisticated level, information is rearranged and combined. The new information may be transferred, it may be the stimulus for an action taken by the manager, or it may be stored for later use. The roles described
below deal with four direct uses the manager makes of information --
disseminating information into the organization, disseminating
information into the environment, giving expert advice, and combining
information to develop organizational values.

6.2.2 Manager as Disseminator

With his special access to information, the manager plays the
role of disseminator, sending information into his organization. He
also transmits information from one subordinate to another when he
believes that the subordinates do not or cannot communicate directly.
He transfers what appears to be a larger quantity of information
from the environment -- particularly from his personal contacts -- to
subordinates. In this way, the manager links his organization directly
to its environment.

The manager receives a variety of mail that he forwards to
subordinates. Most is outside mail and some comes to him strictly
because he is the formal head of the organization.

An invitation to a technical conference is forwarded to a vice president with the comment:
"Anyone interested?" An offer by a financial
firm for sale and leaseback arrangements is sent
to a financial executive, and a report on a
nursing conference is sent to a nursing chief.
The manager arranges that a complaint by the
librarian that journals are not being returned
be published in the staff letter for all
executives to see.
From outside contacts comes a wide variety of information in the form of ideas, "instant communication", and trade gossip. Much of this information is immediately transferred into the organization.

A lead on a possible contract is forwarded to the appropriate subordinate.

A discussion at an external board meeting is reported to two subordinates who are in the process of developing a proposal for that organization.

A telephone conversation with a client is transcribed by the chief executive's secretary and the transcription sent to a subordinate.

The chief executive tells a subordinate about a distraught customer, and another manager briefs members of his organization on the results of a trip.

The manager's deputy receives more of the disseminated information than any other subordinate. In effect, the manager develops his deputy as an auxiliary nerve center, and thereby provides himself with an informational backup and a sounding board. The flow of "instant communication" between these two people is of particular importance.

A deputy comments:

If anyone speaks to either of us, he gets the same feedback... even if we're disagreeing... I keep in constant touch -- in case [the chief executive] meets someone in the hall an hour later, he won't say the wrong thing.

The manager must consider two factors whenever disseminating information -- the channel and the timing. In choosing a channel of communication, the manager must consider how to get the proper form
of information to the appropriate people in an efficient way. One man referred to one of his channels in this way: "You have to know who talks in an organization. If you want to let something out, tell these people."

The timing of information transmission can be the most difficult aspect of dissemination, as these examples illustrate:

The chief executive has just discovered a crisis in the organization. He knows his deputy can use this information and can find out more about the crisis in a meeting he is to attend in a few minutes. Because he knows that the deputy will pass his office on the way to the meeting, the chief executive is able to catch him in the hall just in time to tell him of the crisis.

A manager calls one of the department heads to tell him about a problem that has arisen. He does not want the man to find out first from one of his own subordinates.

6.2.3 Manager as Spokesman

The manager is called upon to play the role of organizational spokesman, that is, he must disseminate information concerning his organization to its environment. By virtue of his formal authority, the manager is required to perform this duty, but it is his access to information that enables him to do so. The manager sends into the environment information on the organization's plans, policies, and results:

(1) The organization's dealing with its directors are largely through the chief executive, and these dealings are characterized by information flowing from the manager to the directors.
A board meeting opens with a report by the chief executive, in which he briefs the directors on various ongoing programs. Much time is then consumed by the questions that the directors ask the chief executive.

(2) The manager spends considerable time communicating with the general public, playing the role of lobbyist or public relations man. Speeches are made to visiting groups and to trade groups. Interviews are held with members of the press.

(3) In part, the manager attends meetings in which his organization negotiates with another to play the role of spokesman. The manager's strong preference for current information is in part explained in terms of his role as spokesman. To speak effectively for his organization, and to insure that outsiders respect him in this role, the manager must have the most current information.\(^{15}\)

6.2.4 Manager as Expert

From time to time, the manager is called upon to play the role of expert, as various kinds of people turn to him for special advice. Ostensibly, this role relates to the manager's skills in decision-making, but analysis indicates that it must be related as well to the

\(^{15}\) The pitfalls of lacking current information were dramatically demonstrated recently when the President of General Motors was forced to admit to a Congressional Committee that he was unaware that his firm had hired detectives to follow Ralph Nadar.
high degree to which he is informed about his industry and the areas
in which his organization operates. This knowledge, combined with
his status and decision-making expertise, puts the manager in great
demand as an expert.

The manager is invited to join a board of
directors, and to appear on television to discuss
events in his industry.

In addition, he receives a great number of requests
for his advice. A political leader asks the
general director of a hospital for advice on a
public health appointment. A subordinate asks for
advice on how to handle a negotiation meeting. A
friend calls to ask the president for his opinion
on a firm available for sale. A friend asks the
hospital director what should be done concerning
the high costs of keeping a relative in the
hospital, and a girl who saw him on television
writes to ask why she is having so much difficulty
becoming a nurse.

6.2.5 Manager as Value Determiner

Various kinds of the manager's information come in the form of
pressures. Subordinates seek to extend their own power; directors
attempt to impose their opinions on decisions; members of the public
bring special pressures to bear. In addition, the government, labor
unions, trade organizations, and various other pressure groups, attempt
to exert pressures on the organization from time to time.

These pressures form a special part of the organization's
information system. They do not bring information of a factual type.
Rather, they represent the value positions of those who have some
measure of control over the actions of the organization, and who seek
to satisfy some basic aims through the organization. Since the manager is the generalist with the broad powers of authority, people direct their statements of value to him. The manager assimilates these statements and combines them to determine the overall organizational preferences. In effect, he plays the role of value determiner.

In a well-known paper, Andreas Papandreou termed this role "peak coordinator": "It is a major thesis of this essay that the preference function maximized by the peak coordinator is itself a resultant of the influences which are exerted upon the firm."\(^\text{16}\) Managers see themselves quite clearly in this role. One commented: "One of the principal functions of this position is to integrate the hospital interests with the public interests." And another chief executive stated: "I've always perceived the Superintendent's role as relating the community to the professional staff."

The value positions that the manager develops can be communicated to the organization in a variety of ways: (1) A request for authorization gives the manager the opportunity to impart values to decisions.

When asked to authorize the development of a new industrial relations policy manual, the manager expresses a set of preferences on labor policy.

\(^{16}\)Papandreou, \textit{op. cit.}, p. 211.
(2) Frequently, the manager will respond directly to external pressures by stating the preferences of the organization.

When a client seeks a special favor, the manager tells him why the organization discourages such favors.

(3) Before taking action, a subordinate or consultant will frequently seek the manager's "advice." Often, however, it is not his advice but his statements of organizational preference that are being sought. Then, when action is taken, the protagonist is assured that it is consistent with the preferences of the organization.

A consultant begins his study of company personnel problems by questioning the manager on what he thinks the new policies should be.

The editor of the school system's newspaper is asked to revamp the periodical. She meets with the superintendent first to ask him a variety of questions: How often does he think it should appear? What role should the PTA play? Should the first issue contain a letter from the superintendent? What ideas does he have for format and content? 17

(4) In virtually every meeting of consequence, the manager exposes his philosophy and thereby imposes a set of values on the proceedings.

17 In these cases, the managers appeared to be very reluctant to comment, primarily, it would appear, because they had delegated these tasks to specialists. These were the questions they were asking the specialists. Answers by the chief executive would inhibit them. However, the specialists appeared hesitant to take action without understanding the manager's preferences.
At a functional review session, the manager reacts favorably to some issues and unfavorably to others. These reactions serve as guidelines to the departments involved.

At a meeting with a new executive, the manager comments: "I wanted to ease any thought in your mind that I had anything specific in mind. Whatever happens in it is up to you; it's your [department]." The manager goes on to state other values positions, and then answers various questions concerning organizational preferences.

The process of establishing organizational values is a complex one, and remains a mystery. Little light is shed on how the various input statements of preference are translated by the manager into output statements of organizational values. There is no evidence that the manager produces anything that can be construed as an explicit preference function. Rather, values are stated not in terms of global preferences but in terms of specifics — the particular answers to particular questions. Furthermore, the manager does not enter into all situations with well-defined value positions. Rather, he often appears to develop preferences as issues progress, as new information and new alternatives appear. Lindblom uses the phrase "adjustment of objectives to policies"18 to refer to this process — ends (values) are not absolute, but change as means (facts) change.

There is strong indication that the manager himself exerts the greatest influence on the organizational preferences that he expresses:

18Braybrooke and Lindblom, op. cit., p. 93.
Many of the pressures exerted on him are ambiguous and diverse. Because of his strong mandate, the manager is able to do more or less as he pleases, particularly in the profit-making organizations where the basic objective is well-defined.

Thus, when decisions must be made, when negotiations must be conducted, or when values must be determined in any other situation, the manager is able to represent the organization's value position. And when an executive says, "My organization believes...", in all probability he means, "My chief executive has told me..."

Figure 20, which follows, illustrates the flows of information to the manager and the uses that the manager makes of his information. Some of the strategy-making uses that are discussed below are included.

6.3 The Strategy-Making Roles

The most critical part of the manager's work -- the part that justifies his great authority and his powerful access to information -- is the set of activities that relates to the making of organizational strategy. Strategy is a term used simply to designate those precedent decisions which, taken together, guide the organization in the making of more routine decisions. In effect, the strategic decisions are the significant decisions that develop and protect the organization.
Figure 20: THE MANAGER IN THE INFORMATION FLOW

ANALYSES: studies of issues of current managerial interest; from trade organizations, subordinates, retained experts

INTERNAL OPERATIONS: reports on progress of programs and notice of internal occurrences; from functional review sessions and meetings with deputies, tours, operating reports and memos, requests for authorization

EXTERNAL EVENTS: notification of environmental occurrences concerning contacts, clients, competitors, associates, suppliers, and of market changes, political moves, technological events; from review meetings with personal contacts, discussions that precede meetings, forwarded letters, instant communication, trade reports, periodicals, review meetings with special advisors

IDEAS AND TRENDS: information on new environmental opportunities and on developments in the environment; from periodicals, trade reports, discussions with personal contacts.

PRESSURES: requests for action to be taken by the manager; from the various power groups of the organization

INTERNALLY DISSEMINATED INFORMATION: information on ideas, events, analyses, values; sent to subordinates in Disseminator role

EXTERNALLY DISSEMINATED INFORMATION: information on plans and policies of the organization, internal events, results of operations, values; transmitted to outsiders in Spokesman role; general trade information and advice transmitted to outsiders in Expert role

INFORMATION FOR STRATEGY-MAKING: information on ideas, problems and pressures used to define entrepreneurial programs and crises; analyses and background data used in the making of specific decisions

INFORMATION FOR MODEL BUILDING: a variety of information used to create and update models of organizational and environmental behavior, and to evolve organizational plans; information on pressures used to develop values

THE MANAGER AS NERVE CENTER
The manager plays the central role in the process of making organizational strategy for four basic reasons: (1) As formal authority, the manager can most effectively commit the organization to courses of action. (2) As nerve center, the manager is most capable of bringing the relevant information to bear on strategic decisions. (3) As value determiner, the manager can best insure that strategic decisions reflect the preferences of the different power groups of the organization. (4) By having one man in charge of all strategy-making, it is possible to insure that various strategic decisions are interrelated.

Strategy-making is an extremely complex process, and it is, therefore, discussed in a separate section which follows this one. However, in the next four sub-sections, four managerial roles, which relate to a number of different kinds of strategic decisions, are presented.

6.3.1 Manager as Resource Allocator

The manager's central role in strategy-making is to oversee the allocation of organization resources. Most strategic decisions involve the commitment of resources, where the term "resources" is used broadly to include financial or material assets, the time of employees, and, in the case of an advertisement or a public statement, the reputation of the organization. Certain decisions, while not committing resources per se, do so in the sense that they involve the risk of losing resources. For example, by deciding not to have a
policy on the number of executives allowed in the company airplane at one time, the president accepts the risk of great manpower loss in the event of a crash.

It was stated above that the manager "oversees" resource allocation. This word is chosen to signify that the manager's role is strongly related to the actual making of choices, not to the detailed work that precedes choice-making. To a large extent, other members of the organization involve themselves with the details of searching for information and alternatives and of undertaking extensive analysis. They send their findings to the manager who is asked to approve them. In effect, the manager chooses among the competing alternatives -- he plays the role of resource allocator.

The manager oversees the allocation of resources in a number of ways -- by scheduling his own time, by implicitly or explicitly delegating authority to trusted subordinates, by handling requests for authorization, by engaging in the budgeting process, and by supervising various kinds of developmental activity.

Scheduling time: On the most basic level, the manager allocates a prime organizational resource -- his own time. He makes these resource allocation decisions on an intermittent basis throughout each working day.

Questions of scheduling are constantly before the manager: Should I make an appointment to see this salesman? Shall I give our PR man the appointment he requests at this time? Can I afford the time
for a tour? Should I call him back or ask my assistant to do so? Should I make this speech? Can we take the time to attend the conference? Is one-half hour long enough for him to explain his problem? Should the marketing vice-president attend as well? Is this trip abroad sufficiently important or should I delay it? Should we be represented at the dinner for the trade mission?

These decisions allow the manager to allocate his own limited time, and, frequently, the time of other members of his organization. By doing so, the manager implicitly or explicitly determines organizational interests and sets organizational priorities. In effect, he announces that certain issues are important to the organization, and others, because they receive little or none of his time, are unimportant. Those issues that receive low priority do not reach the nerve center of the organization and are blocked for want of resources.

Subordinates, it would appear, react strongly to these priorities implicitly set by the manager. They will learn, by their inability to interest him, that certain issues are to be avoided in favor of others. Thus, marketing tends to be favored by an organization whose president came from the marketing department, and engineering, by an organization whose president is an engineer.

The effects of his scheduling decisions indicate some important things about the manager. They indicate how powerful the manager of an organization really is, how much influence he can exert in fairly
simple ways over the diverse affairs of his organization. They also indicate the enormous opportunity cost to the organization of its manager's time.

**Entrepreneurial Programs:** The organization attempts to control the evolution of its strategy through what will be called "entrepreneurial programs". These programs represent controlled change, the activities undertaken in many parts of the organization for purposes of improvement — to strengthen a weakness in an "operating program", to avert an upcoming problem, to exploit a new opportunity, to satisfy the wishes of a power group.

These programs do not generally develop at single points in time. Rather, they develop as projects that involve a number of decisions spaced over periods of time. Entrepreneurial programs may be considered as consisting of three steps — initiation, development, and final approval.

The manager of an organization may assume a number of different forms of involvement in the array of entrepreneurial programs undertaken by his organization. He may be responsible for the initiation of the program, an activity related to his role as entrepreneur. Then, he may delegate to a subordinate all responsibility for the development and approval of a program. He may delegate responsibility for development and assume responsibility for initial or final approval, and, finally, he may assume responsibility for both development and approval. These three levels of involvement are
discussed in turn, under the titles "delegating", "authorizing and budgeting", and "supervising".

**Delegating:** The manager plays no role in a great number of entrepreneurial programs, because he explicitly delegates all responsibility for them to a subordinate, or because he implicitly does so -- subordinates know that the manager need not be involved. In effect, the manager controls the entrepreneurial program by choosing certain subordinates.

He appoints men he can trust to oversee these programs, and he develops in them over time an appreciation for the values of the organization and for his particular preferences. Then, they are able to supervise certain entrepreneurial programs, while the manager retains the power to replace any man whose resource allocation procedures do not comply with his wishes.

When an entrepreneurial program relates to only one functional area of the organization and when it is not competing for resources with programs from other areas, the manager is encouraged to delegate responsibility for the program to the specialist in charge of that function. In these cases, the manager's role as nerve center is of no help -- the specialist knows more about the functional area.

The decision to delegate becomes more difficult when decisions associated with a program are not clearly identified with one functional area. The dilemma of involvement versus non-involvement is illustrated by the following episode:
In these cases the manager is not actively involved in the creative part of the decision-making process. Rather, he is presented with one alternative and is asked to approve or reject it.

A deputy enters the chief executive's office: "Harry, how does this strike you? If you have no contrary thoughts, I'd like to see a thing like this go through."

Most often, the manager is given the option to stop action that the subordinate is about to take. In other cases, an alternative is presented to the manager without bias — does the manager wish to see an action take place or not. In either case, the manager enters the decision-making process once a subordinate has defined the possible alternatives, although nothing constrains the manager from introducing one. By participating in the entrepreneurial program in this way, the manager is able to maintain control over the actual allocation of resources, and is able to relate the program to other programs with which it might conflict.

Managers choose to participate in this marginal way in certain kinds of programs, namely those involving relatively routine allocation of large amounts of funds, those involving important precedents and exceptions to standard operating programs, those involving high risk of resource loss, and those involving highly sensitive value tradeoffs.
The manager's approval for entrepreneurial programs is sought in two ways: The manager will review the program during a routine budgeting process to the extent (1) that a program has clearly defined costs and benefits, (2) that it is a routine program for the organization, (3) that the other programs competing for the same resources are known, and (4) that approval can be delayed until a particular time of the year.

Both in government and in industry, the budgeting process is the most widely recognized form of resource allocation. The decisions are structured for the manager. He is presented with the cost and benefit information on a number of alternative programs, all seeking the same constrained resources. In almost every case, only monetary resources are considered. The manager must make a large series of resource allocation decisions; in effect, he must decide which programs will receive resources, and which will not and as a result be blocked or delayed.

It appears that in the great majority of cases, the conditions for using budgeting are not met. Non-monetary costs often predominate and are ill-defined; many entrepreneurial programs are not at all routine for the organization; the competing programs are not known and the scheduling of the program is such that the organization cannot wait to find out what they are. In these cases, the manager's approval must be sought on an ad hoc basis, in terms of a "request for authorization."
The examples listed below illustrate the variety of requests for authorization that managers receive. It should be noted that many requests for authorization relate, not to detailed entrepreneurial programs, but to simple exceptions to standard operating programs. However, the concept remains the same --- the manager, as resource allocator, ensures that the action to be taken will properly develop, or will not endanger, organizational resources.

A nurse asks the hospital director if approval can be given to allow nurses to operate cardiac units when no doctors are available.

A subordinate seeks authorization to bring in consultants to begin a study, and another asks if construction can begin on a new building.

A chief executive meets with a promoter and one of his own vice-presidents and is asked if the firm is willing to sponsor an athletic event.

Because they are so detached from other decisions, these are particularly difficult decisions to make. The manager must ensure in his own mind that the organization's resources will not be overextended; he must consider whether the decision is consistent with recent decisions and with planned decisions; he must somehow test the alternative for feasibility. However, the fact that the manager has not chosen to supervise the associated program suggests that it is of only marginal interest to him. Therefore, he is unable to spend much time on decisions related to it.
As discussed in Chapter 5, while the manager must make these decisions quickly ("with the stroke of the pen" as one subordinate expressed it), he risks discouraging his subordinates by doing so. A subordinate may see a program, which has taken months to develop, destroyed in minutes. The manager may circumvent this problem by deciding on the man rather than on the alternative. That is, the manager will approve programs presented by subordinates who are perceived as capable, reject those presented by subordinates who are perceived as incapable.

One manager comments: "I don't decide on the issues; I have people do that. All I do is insure that I have good people. If they don't lead me well, I change them."

The manager must also consider factors of timing when deciding on requests for authorization. By authorizing too quickly, he may be denying himself important information, on events that will take place, on consequences of the decision that he did not at first consider, on other possible uses, yet to be developed, for resources. By delaying authorization, the manager may be losing an opportunity, and may be confusing subordinates who do not know whether to begin taking action or to forget about the program and begin something else. The manager's success in his role as activator depends in large part on the extent to which he does not inhibit innovative ideas that come to him in the form of requests for authorization.

---

19See Section 5.2.
Supervising: Finally, the manager chooses to involve himself deeply in, and to supervise, a large number of entrepreneurial programs. He becomes involved at an early stage of development — frequently he is responsible for initiating the program — and he remains active throughout the design stages of the program. Only when it has been formally approved and completed or when what remains to be done is fairly routine does the manager cease to be actively involved.

The manager chooses this degree of involvement for a variety of reasons. The interests of powerful organizational groups may be affected by the program; the manager may have a strong personal interest in the area of the program; outsiders may be involved and the manager may need the knowledge of the program in order to play effectively his spokesman role; the program may involve a change in a department that reports directly to the manager, in which case he must supervise its development. Furthermore, any program that involves a major resource commitment, a very important precedent, or a highly sensitive issue, requires the participation of the formal authority of the organization.

The manager keeps a large inventory of development programs of various ages and at various stages of development. This inventory is constantly changing, as new programs are added, old programs are removed, and other programs are awaiting the time when the manager is able to add them to inventory. Entrepreneurial programs do not
generally develop quickly. It appears that the manager splits the major decisions called for in a program into a set of smaller decisions that are spaced over time. Between successive decisions, delays are planned for purposes of timing and information collection. Thus, any meeting associated with an entrepreneurial program appears to be one of a long series, as the following examples illustrate:

Seven top-level executives attend a strategy meeting in the board room. This is one in a series of meetings concerning a particular firm with which the organization is negotiating. This activity is part of a vigorous acquisition program. One executive is briefing the others on the latest results of negotiations. He tells of the bargaining process, his evaluation of the organization, and his proposal for a new price offering. The discussion shifts to the pros and cons of acquiring the firm: cash would be tied up, the probability of success in the negotiations is high, there is uneasiness about the capability of management. The chief executive then comments: "Looks like we can't lose," and turns to the financial man: "You got the money?" The reply is affirmative, and the discussion then turns to the question of who will join the board of directors if the firm is acquired.

In reaction to vigorous public debate, a committee of eight people was formed, including the superintendent, a school committee member, and assistant superintendents and principals, to investigate the issue of serving lunches to school children. In the last meeting, the decision was made to begin a pilot program. At this meeting, one of the participants is leading the discussion on methods of measuring the appropriate factors in the pilot program. After some time, the talk shifts to what appears to be the issue at hand — choosing a committee of citizens to oversee the pilot program. Leading the discussion, the superintendent begins to recommend the types of people required and the specific people who seem to fit. Each participant generates more suggestions, until the superintendent announces that enough acceptable names have been
suggested. It is decided that the superintendent will write letters inviting these people to join the committee. When the replies are received, the group will meet again. The superintendent comments: "I think we've gone as far as we can go," and the participants get up to leave.

In his handling of entrepreneurial programs, the manager may be likened to a juggler. At any one point in time, he has a number of balls in the air. Periodically, one comes down, receives a short burst of energy, and goes up again. Meanwhile, a set of new balls waits on the sidelines, and, at random intervals, an old ball will leave or a new ball will be added.

The manager appears to juggle a great many entrepreneurial programs at any one time, interacting with each intermittently and for brief periods of time. It does not seem unreasonable to speculate that the number juggled averages between fifty and one hundred for the chief executive of a large organization.

Among the programs that the chief executive of one organization was seen supervising during the one week were: an attempt to better the organization's cash position; the placing of a weak department at headquarters for a period of time so that the chief executive could strengthen it; the initiation of one public relations program, the continuing development of three others, and the finalization of still another which had been held up by a ten year old technological problem; the seven year old problem of dealing with a weak overseas executive and his discouraged staff; the possible acquisition of a consumer goods manufacturer and concerns about anti-trust; the difficulties of reorienting salesmen to the selling of new lines; the need to change one of the professional services retained by the organization; the development of integrated
computer operations; the plans to purchase an overseas supplier; the possibility of setting up new overseas manufacturing facilities; the advertising agency problem of a foreign subsidiary.

During the development of an entrepreneurial program, the manager will often request that subordinates spend the necessary time to collect some of the more inaccessible information. He simply does not have the time to undertake analysis, search literature, interview experts, and so on. Instead, the manager must rely on those around him to create the ties to the needed sources of information. Furthermore, by putting the program in the hands of a subordinate, the manager can temporarily forget it and get on with other matters, assured that the subordinate will report back when ready. In effect, the manager has programmed the initiation of the next step in the development of the program.

However, the manager clearly retains full control over the making of all choices associated with entrepreneurial programs, as the following examples indicate:

As the chief executive arrives, the meeting to decide whether to enter the joint venture in a foreign country begins. Sides quickly form, the executives on one side of the room arguing for a positive decision, and those on the other side questioning the validity of these arguments. For about fifteen minutes, the chief executive is silent. Suddenly he interrupts the discussion, asks three quick questions on capital required, estimated return-on-investment, and risk, and then comments: "It has interesting
innovative aspects, and not much financial risk. I'd like to see us go ahead to see what problems we'll encounter." With this, he gets up and leaves the meeting, the decision made.

A meeting is called to discuss the possible acquisition of a firm. Again, the pattern is the same. The executives form into opposing teams. Both direct their comments at the chief executive whose sentiments are not known. After asking a number of questions, the chief executive comments: "There are better places to put your dough." A long silence follows. Then the debate resumes, with those in favor of the acquisition attempting to change the manager's mind. Finally, the manager summarizes the arguments and presents his decision -- if the firm is seeking capital resources, rather than operating funds, the acquisition will be made.

In addition to the opinions of trusted subordinates and experts, the manager uses three other factors in making choices -- models, values, and plans. The manager absorbs much of the information that continually bombards him, and he seems to use it to develop implicit models of the internal workings of his organization, the behavior of subordinates, the trends in the organization's environment, the habits of associates, and so on. When decisions must be made, these models can be used to test alternatives. The manager can say to himself: 'Does this proposal make sense in terms of the trends that I see in tariff legislation?' "Can I trust the information that I received from Jack?" "Will the EDP department be able to get along with marketing on this?" In each case, the manager calls on all the related information that he has received in the past, information that has been subconsciously combined into models. These models tend to be of the kind build from non-quantitative data, data generated by events that have occurred.
It should be noted that the plans developed by the manager are necessarily loose. Because of unanticipated crises, because of unpredictable timing factors, because of possible new information and alternatives, because models are crude, and because programs are handled intermittently, the manager cannot afford the luxury of rigid plans. He must allow himself the flexibility to react to his environment. Thus, his plans are made to be modified. Because they might readily be modified, the plans can seldom be made explicit. They remain in the manager's mind, to be used as another kind of implicit model in the making of decisions.

Also, because the plans remain in the mind of the manager, they most decidedly belong to him. It is interesting to note that a manager will often reply to a question on plans for his organization by saying: "I believe..." or "I would like..." Thus, as nerve center and as value determiner the manager is able to make plans; as spokesman and as resource allocator, he is able to use them.

6.3.2 Manager as Crisis Handler

The manager makes strategic decisions in two other ways. One of these relates to the crises that the organization faces from time to time. A crisis is defined simply as a severe set of pressures exerted on the organization to take action. With the formal authority and the power to allocate resources, the manager must play the central
role in the event of a crisis. To illustrate the features of the crisis situation, five examples of crises are described in some detail.

A client writes to complain to the chief executive. The salesman who services him is unsatisfactory, and a letter to the sales manager brought an inadequate reply. The client has been getting small shipments for some time, and now the organization has refused to send any more.

As he finishes the letter, the chief executive quickly goes to his cupboard, and emerges with two enormous volumes of computer printout, which he immediately begins to skim. All the while, he is commenting: "It's a new racket I just uncovered... This is why I have the records --- so nobody can play games... This is a violation of sales policy --- there is something wrong with our basic system... This has been going on for years now --- why isn't there something in the system to catch this... We have to (1) honor his order, and (2) tell him what should have been done." Thus, coupling the information of the letter with the data of the records, the manager has satisfied himself that a problem has surfaced.

Soon after, he is in his assistant's office: "I have a letter here from a retailer and it looks like a typical situation." He explains that the salesman has been circumventing minimum order quantities by including small orders in those of larger accounts. To the assistant goes the task of finding out how this violation of policy was able to continue for four years, and specifically to find out "who's been looking at the orders and records... and to look into the administrative procedure."

Early the next morning, the assistant comes by to tell of the results of the investigation. The speed with which he has completed his analysis is not related solely to the need to answer the customer's letter. A headquarter's meeting of sales executives from across the country happens to coincide with the crisis, and the chief executive sees an opportunity to exploit this coincidence.
During lunch with the sales vice-president, he arranges to have the visiting executives informed of the problem and the steps to be taken to avoid recurrences.

A letter from a European executive requesting funds for a tenth anniversary celebration was answered, and the funds were denied, during the chief executive's absence. On his return, the chief executive reads the correspondence and anticipates a problem. The reply should have come from him. He immediately calls in the responsible executive, assures himself that the denial was justified, and replies to the European executive. In effect, he says that he will not interfere and explains the reasons for the denial.

For the first time in many years, a particular professional staffer schedules an appointment with the chief executive. The staffer has come to tell him about an "explosive situation" in his department, and about the readiness of a group of his colleagues to resign. The problem is a superior who is obsessed with his own position and inhibits his subordinates.

The chief executive finds himself in a complex system of forces. Favoring his taking action against the executive are (1) a fear of losing capable professionals, (2) a fear of closing communication channels (Will rebuffed employees bring their complaints to his attention in the future?), (3) a conscious belief that this executive has been attempting to challenge his position, and (4) the possibility that this executive may be as incapable as his subordinates claim. Favoring inaction are (1) a desire to maintain the traditional authority structure of the organization, (2) a fear that the crisis may simply be a power play by one ambitious employee, (3) the possible loss of an important executive, (4) the fact that he fought to have this man appointed over the doubts of others, and (5) the effects that such an action would have on the morale of other executives.
The manager immediately begins to open information channels. He calls the board chairman to advise him of the crisis and to seek his advice on a tentative strategy. He stops his deputy in the hall on the way to a meeting to tell him of the event, and to ask him to keep watch for signs of the crisis, particularly at the meeting.

In the next few days, the manager uses every opportunity to gain more information, calling on various subordinates, meeting with the deputy to trade information, and so on. At the same time, he keeps in contact with the dissidents, satisfying them that the situation is under active study.

The manager becomes satisfied that the crisis is a real one -- the department members are truly discontent -- and he develops a strategy. In a social meeting with the executive, he will confront him with the problem, and point out the need for him to change his methods.

While the chief executive and two of his executives are meeting informally, the secretary receives a telephone call from a purchasing agent in one of the plants. She immediately conveys the message to the chief executive. The note reads: "heard from grapevine -- will ship 2000 [parts to competitor]." To the executives, this means that a supplier who signed an agreement to develop a certain part for the firm, and who has since been bought by a competitor, may be reneging on his commitment, supplying the competitor instead.

Discussion of other issues ceases, and the office begins to take on the appearance of the headquarters of an army under siege. One executive goes to get the contract with the supplier, while the other is on the telephone finding out how many of these parts are called for in the sales plan, and at what times.

With one man sending in financial data, and the other, legal data, the problem is discussed: "How the hell can we stop them?...Can't... We threw away a whole year... They will beat us..." Finally, a tentative strategy evolves. The firm will attempt to force the supplier to honor the agreement immediately, even though the parts may not be needed for awhile, and in spite of the
holding costs. This will delay the competitor. However, as calmness begins to prevail again, the executives reconsider their position, decide that the issue is not as significant as was first believed, and agree to limit action to a written request to the supplier asking for clarification.

During a meeting in progress, a deputy comes in quickly and leaves a message. "Harry Jamison will call. Elmwood man feels that Mr. Flagdale was forced out. wishes to object. wants a hearing."

The issue relates to the ratification of a new executive at the open board meeting that evening. A group associated with the organization, who favor the previous office holder, are putting pressure on the directors and the chief executive.

That evening, in an informal meeting of the directors preceding the board meeting, the extent of the reaction becomes clear. As each director enters, he tells of pressuring telephone calls, usually from close contacts. They begin to try to develop a picture of the situation -- who are the dissidents, what is their exact complaint, what actions might they take?

The chief executive immediately takes charge, developing a strategy, and acting to have it carried out. One board member will find the dissidents before the meeting, attempt to understand their position, and explain the possible embarrassment to the resigning executive if the issue is raised at the meeting. If necessary, the resignation can be delayed. At the board meeting, there is no incident. (It is interesting to note that the chief executive, who clearly assumed leadership throughout this crisis, was accused by the dissidents of being manipulated by his board of directors.)

Crisis appear to be of three basic types: (1) conflict crises -- conflicts between subordinates because of resource demands, personality differences, or overlap of specialties, (2) exposure crises -- conflicts between the organization and other organizations, and (3) resource crises -- severe and suddenly imposed resource constraints.
Again, as the generalist in the organization with the broad powers of authority, the manager is forced to assume strong, central command in the event of a crisis. Crises are clear exceptions to the normal operating procedures of an organization. But specialists are geared to doing the relatively routine work related to their specialties. Thus, the crises naturally gravitate to the manager, who becomes, in effect, the "general problem solver" or crises handler in the organization. (This role really relates to all the exceptions that the manager must handle, including the approval of deviations to routine procedures and policies.)

To use the vocabulary of managerial decision-making, the organization consists of a set of operating programs that are evoked by well-defined stimuli. When the organization incurs a stimulus that is not clearly defined in terms of an existing operating program, or one that evokes more than one operating program, it must be handled by a general program that oversees all others and that is designed for any kind of stimulus. This general program will decide where the stimulus belongs, or it will design a new operating program to handle the stimulus. The manager is, in effect, such a general program. Thus, when subordinates cannot agree, they seek the help of the manager; when no one knows how to handle a problem, they pass it about until the manager gets it; and when a crisis arises, the manager must take charge immediately.
The most outstanding characteristics of the crisis situation are the factors of timing. First of all, by their very nature crises do not arise gradually. (The situation causing the crisis may arise gradually, but if the manager foresees it and reacts to it, crisis states are never reached. To the manager, a crisis is always sudden.) Crises are seldom found in the routine flow of information -- the operating reports and so on. Rather, crises are defined by ad hoc stimuli, generally in the form of "instant communication". Usually, the information is carried to the manager by someone who realizes that a crisis has begun. In effect, the manager does not define crises; others recognize them for him.

Secondly, timing enters importantly into the handling of a crisis. While it is fashionable to write about the distant time spans of high-level executives and to depict them as reflective planners, the fact is that every manager must spend a good part of his time reacting very quickly to high-pressure crisis situations. And the argument that effective organizations do not experience crises is a misleading one. The effective organization is the one that encourages so much innovative activity that crises become commonplace. For no organization can foresee all the consequences of its new actions; one can eliminate the occurrence of most crises only by eliminating the taking of new actions.
Crisis-handling takes precedence over most other kinds of activity. The manager must rework his schedule, and devote the bulk of his energies to developing short-term solutions, to relieving the severe pressures acting on him. Perhaps the term "instant strategy" should be included with "instant communication".

Finally, it should be noted that crises become important determinants of organizational strategy. Crisis situations are well remembered by the manager, the members of his organization, and affected outsiders. The manager's method of handling a particular crisis serves as a very clear precedent to the organization.

6.3.3 Manager as Bargainer

The manager has one final means of allocating the resources of his organization. When the organization must enter into a negotiation session with another organization -- a supplier, a retained service such as a consulting or accounting service, a client, or one of a number of other groups, including government, unions, and banks -- the manager must frequently play a central role in the negotiations.

A meeting is held to negotiate the acquisition of a firm. Present are members of the firm to be acquired, and the president and a number of vice-presidents of the firm making the offer. The president leads the contingent from his organization, opens the proceedings, and plays a central role in the negotiations.
The chief executive and his deputy meet with two members of a consulting firm currently serving the organization. The two groups are in conflict over certain expenses that have been charged. Eventually, the chief executive states his demands, and an agreement is reached.

The manager is called upon to participate because of his role as formal authority — his presence adds importance to the proceedings. Furthermore, as spokesman, the manager represents the organization's information system and its value system, and provides the official link to outsiders. However, the manager's crucial role in negotiation activity relates to his role as resource allocator. Negotiation involves a basic form of resource allocation — trading resources for goods or services. Since negotiation decisions often involve extremely large resource commitments, and since the manager is best able to make resource allocation decisions, he must play the role of bargainer in these sessions.

6.3.4 Manager as Entrepreneur

Closely associated with his role as activator, and stemming from his role as resource allocator, the manager plays the important role of entrepreneur. Entrepreneurship involves two interrelated activities — scanning for opportunities and monitoring for problems.

The manager spends a good part of his time scanning the environment of the organization, looking for ideas for improvement. Furthermore, he designs his external information system to bring him ideas.
The manager questions subordinates at random, holds functional review sessions, takes the occasional unannounced tour, searches for possible problems in the mail and in the comments of deputies and others, all the time looking for possible areas of improvement.

Ostensibly, the internal operating reports are also designed to help the manager find problems, but there is little indication that they do, in fact, provide the right kinds of information. It appears that managers are more prepared to react to consequential stimuli -- specific events and ad hoc data -- than to gradual trends. Sayles drew similar conclusions:

How does the manager check or control? He looks at statistical reports of quality, quantity, turnover, etc. He inquires how people are doing, and he endeavors to "sense" when people are acting differently. Unfortunately, some of this is usually done intuitively, and there is little systematic attention to an integrated control system.

The usual managerial reporting systems -- information flows or paper flows -- fail to come to grips with the real purpose of controls. Rather, they naively try to tell the manager what is happening or, more precisely (and less valuably), what has happened. Only recently have there been concerted efforts to distinguish significant events for the manager.\(^{20}\)

Given an opportunity, the manager may search for an area in which to implement it. Given a problem, the manager may scan his environment for means of solving it. If an opportunity is particularly lucrative,

\(^{20}\) Sayles, op. cit., p. 163.
or if a problem is sufficiently critical, the manager will introduce an entrepreneurial program to handle it. In other cases, the manager will store an opportunity until he finds a place to use it, and he will store a problem until a means of solving it arises. Thus, innovation and problem-solving are not distinct activities.

6.4 Generalizing the Manager’s Roles

The work of five chief executives has served as a basis for the development of this set of thirteen roles. One central question remains -- do these roles in fact describe all managers or simply chief executives? A related question -- do managers from differing kinds of organizations play the same roles -- has been answered implicitly, since the five managers studied came from very different kinds of organizations. In this section, it will be argued that the roles outlined above are played by all managers.

The organization has been described as consisting of a set of specialists, or of operating programs, reporting to one formal authority, the manager. What is the manager? In essence, he is a generalist in an organization of specialists, a man who, given a broad mandate to direct the affairs of an organization, becomes the basic link to its environment, the center of its information and value system, and the director of its strategy-making system.
This description holds for any manager, as long as it is remembered that the term "organization" has been used broadly. Thus, a machine shop managed by a foreman is as much an organization as the giant conglomerate company in which that machine shop is located. That foreman, like the president of his company, is a generalist in an organization of specialists. His president understands and is knowledgable about both the marketing and the manufacturing functions. The foreman is also nerve center -- he is aware of activities concerning both lathes and milling machines. The foreman is also given broad powers over his machine shop, and, as a result, he represents its values (many of which are imposed from above) and he serves as the basic link to its environment. This means that he interacts with other foremen in a contact man role, and he disseminates some of the information that he receives from them into his machine shop. It means, as well, that he must act as organizational spokesman -- he must keep his superior informed about events in the machine shop. Furthermore, the company views the foreman as an expert -- he must give advice to various people on the operations of a machine shop.

The foreman's figurehead and activator duties are not as involved as those of the president, but they exist nonetheless. He takes company visitors on tours of the machine shop, and occasionally, he attends the wedding of a subordinate. The company expects continual increases in productivity, and it is clear to the foreman that one means of doing this is to maintain a high morale among his men.
The foreman spends far less time than the president on strategy-making activities; nevertheless, he plays the same roles. Resources are allocated in a number of ways. The foreman allocates his time between the various machines with the knowledge that his presence has a distinct effect on productivity. The foreman is also an entrepreneur. He is always searching for better methods of operating, by reading production magazines, by speaking to the foremen of other companies, by attending supervisor's conferences, and simply by looking for new problems in the machine shop. When he finds a new idea or a new problem, he may call together a few of his machine operators. They will discuss how to solve the problem or use the idea, and perhaps a pilot program will result. The foreman may be juggling a number of these programs at any one time.

The foreman also oversees the allocation of resources in his role as bargainer. He negotiates with other foremen and with his superior in a number of ways -- by bargaining for salary increases for his men, by bargaining for more space, by bargaining to get various men assigned to his shop.

One of the foreman's most critical roles is that of crisis handler. Crises are no doubt common in the machine shop, and they are very similar to the kinds with which the president deals. Conflicts arise with other organizations -- supplies do not arrive on time and production stops. Conflicts also arise within the organization -- men disagree, either because their personalities clash, or, perhaps,
because each one feels that he should do a particular job. The foreman is the formal authority and the generalist -- he must mediate.

Clearly, foremen, department heads, and presidents, even prime ministers, must play the same basic set of roles. Some managers lead autonomous organizations, with environments consisting of boards of directors, other autonomous organizations, governmental bodies, and the public. Other managers lead organizations within organizations, and the basic environment consists of the other parts of the larger organization. In effect, these larger organizations consist of layers of managers arranged in hierarchical order, all playing the same set of roles and relating to each other through the same set of external roles.

6.5 A Note on Strategy-Making in the Organization

Since the manager of an organization works at the focal point of its strategy-making system, much can be learned about strategy-making by observing the manager. Summarized below, in point form, are a set of hypotheses on organizational strategy-making as they appeared during observation. Many of them were discussed earlier in the chapter and are listed here so that the set of hypotheses is complete.

1. Concept of Strategy: Strategy is defined as the set of precedent decisions that, taken together, guide the organization in the making of more routine decisions.
2. **Evolutionary Process:** Strategic decisions are not generally made according to plans or schedules. They are made in a complex, continuous, dynamic process that fully interrelates with the information, the pressures, and the events of normal working days. The strategy of an organization evolves as the sum total of all those precedent decisions taken during the daily activities of managers.

3. **Resource Allocation:** Strategic decisions generally are major resource allocation decisions, where the term "resource" is used broadly to include man-hours and reputation, and where decisions to protect resources are included.

4. **Kinds of Strategic Decisions:** At the heart of strategy-making are three kinds of decisions -- the scheduling of time, the handling of crises, the development of entrepreneurial programs.

5. **Scheduling Time:** On the simplest level, strategy is made as the managers of an organization schedule their time. By deciding what they will and will not do, the managers are implicitly determining whether particular issues are important or unimportant to the organization. And by setting priorities among those issues competing for their time, the managers are implicitly determining the relative importance of various strategic issues.
6. Handling Crises: The organization backs into strategy by the ways in which it handles crises. A crisis is defined as a severe set of pressures exerted on the organization to take action. Crises tend to be highly visual situations, and the decisions taken in times of crisis serve as influential and conspicuous precedents.

7. Kinds of Crises: Crises appear to be of three kinds: In "conflict crises", subordinates differ strongly because of conflicting resource demands, personality differences, or overlap of specialties. In "exposure crises", the organization conflicts with another, and in "resource crises", the organization meets a severe and suddenly imposed resource constraint. Crises do not necessarily reflect mismanagement. Since innovative activity is necessarily accompanied by unanticipated consequences, a high incidence of crises may reflect a high level of innovation.

8. Initiation of Crises: Crises are not defined by managers. The stimulus for a crisis is ad hoc, external, and unequivocal. It comes from a subordinate, a member of an organizational power group, an outsider, or a dramatic event.

9. Characteristics of Crisis Behavior: Because crisis pressures are severe, the organization attempts to alleviate them quickly. Thus, the crisis gives rise to a number of tendencies: (a) The top manager in the affected organization will usually take clear command in the event
of a crisis. (b) He will work on the crisis independently, and he will tend to give crisis-handling activities top priority. He will rework his schedule, cancelling other activities if necessary so that a solution can be found quickly. (c) The manager will often seek a temporary solution to a crisis in order to alleviate its pressures. Often, this means simply trying to convert it into a "problem", which is defined as a situation where there is a perceived need to change from a current state to some other desired state, but without the accompaniment of severe pressures.

10. **Steps in Crisis-Handling:** Once he receives the stimulus of a crisis, the manager quickly begins to open special information channels, to gather information and to keep certain interested parties informed of events and of his activities. Once the needed information is gathered, a choice of a course of action is usually made quickly and informally. Little time is spent on the formal analysis of alternatives.

11. **Entrepreneurial Programs:** At the core of the organization's controlled strategy-making system is the set of entrepreneurial programs that it undertakes to redesign existing operations or to introduce new ones. These programs encompass a wide range of activity (e.g., strengthen a weak department, develop a public relations campaign, reorganize, acquire a firm, expand a product line, develop a
new supplier, build new facilities, develop an executive training
operation, automate a certain operation). In effect, they cover all
the major planned change in the organization.

12. **Inventory of Programs**: At any one time, the organization will
be juggling a large number of entrepreneurial programs of various ages
and at various stages of development. In effect, there is always a
large inventory of active programs, an inventory of inactive ones, and
an inventory of issues awaiting entry to the inventory of active
programs. Before being completed (i.e., fully developed into routine
operating programs), entrepreneurial programs undergo three stages —
definition, development, and approval. 21

13. **Definition of Entrepreneurial Programs**: Managers spend a good
part of their time scanning the environments of their organizations
and monitoring internal operations. In addition, they are subjected
by power groups to many pressures and demands, the great majority of
which never reach the crisis stage. The information inputs that result
from these activities cause the managers to define entrepreneurial
programs. In essence, the manager defines a program (a) to exploit
an opportunity that he has found in the environment, (b) to solve a
problem that he has found in the organization, or (c) to satisfy the

---

21 This is consistent with Herbert Simon's intelligence-design-choice trichotomy. See *The New Science of Management Decision*, op. cit.
wishes of a power group that has made a demand or exerted a pressure. Problem-solving and innovating activity cannot be clearly distinguished. Rather, there exists a continuum. At one end are opportunities used to improve operations that are running smoothly. At the other end are problems and pressures that cause the manager to begin searching for means of solution. In between are various mixtures of problems awaiting means (or opportunities), and opportunities awaiting applications (or problems).

14. **The Decision to Define:** A variety of factors influence the manager in his decision to define entrepreneurial programs, including the size of the potential gain or loss of resources, both from defining and from not defining; the influence of the power group making the demand; the frequency of the stimulus encouraging the manager to define; the current size of the active inventory of programs; the personal interest of the manager in the particular issue. Generally, one manager supervises a given program, although another manager (generally a superior) may have defined it. The rank of the manager supervising the program will depend on the size of the potential resource gain or loss, the kind of power group involved, and the sensitivity of the values associated with the issue.

15. **Stepwise Development:** Even when it appears that one clear decision is called for, entrepreneurial programs are generally split into sets of serialized decisions. (Decisions to acquire a firm may
be split into — decision to consider showing an interest, decision to delegate responsibility for analysis to a subordinate, decision to enter negotiation, decision to set offering price, decisions made during negotiation. Each meeting (or telephone call, etc.) in the sequence is designed, first, to make one new decision, and second, to program the next step, that is, to decide what stimulus will cause the next meeting. The developmental stage is broken into stepwise decisions because (a) the manager is unable to spend much time on one issue at any one time, (b) information must be collected, causing feedback delays, and (c) certain events must occur before action can be taken, causing timing delays.

16. **Feedback Delays:** Many of the sequential steps involve decisions to request information or analysis, often from experts (e.g., operations researcher, lawyer, consultant). Thus, a basic type of delay between decisions involves simply waiting for feedback — an opinion, a report, a fact, an alternative, a reaction.

17. **Timing Delays:** Timing factors cause a second reason for delays between successive decisions. The manager may await an event (e.g., the retirement of an executive who will block an action, the releasing of funds to enable the organization to finance the building of a facility, the solution by research of a technological problem that hampers the program). The manager may also delay a program because he does not feel he has enough general information (enough "feel"
for the issue) to continue. And he may delay a program simply because he is too busy — he has too many programs in active inventory, he has too many scheduled obligations, or he must devote all his time to a crisis. In cases of indeterminate delay, the program will enter inactive inventory, to be reactivated by the manager when the necessary stimulus or condition occurs. Thus, a manager is able to juggle very many programs, some of which might stay in inventory for years.

18. Approval of Programs: Most programs do not relate to any others on an analytical level. Each one is developed independently. The only way programs are linked — that is, the only way strategy is somehow integrated — is by virtue of the fact that one man — the manager of the organization — must approve all the important programs of his organization. He may supervise the program and implicitly approve it, or a subordinate may supervise it with the stipulation that initial or final approval must come from the manager. In these cases, the manager generally will only approve, delay, or reject the program; he will not redesign it, although he might suggest that redesign is necessary. When the manager implicitly or explicitly delegates the right both to supervise and to approve, in all likelihood (a) there is no need to relate this program to another in a different specialty, and (b) the program is not an important one in terms of resources involved and in terms of value tradeoffs.
19. **Formal or Ad Hoc Approval**: The manager may be approached to approve a program supervised by a subordinate in two ways: (a) If the program is competing for well-defined resources (generally monetary), if the costs and benefits can be accurately determined, and if approval can be delayed until a particular time of the year, then approval is sought in terms of a formalized budgeting process. (b) If any one of these conditions is not met, then approval is sought in terms of an ad hoc request for authorization. In the first case, a set of formal proposals, carefully and explicitly analyzed are presented to the manager together with a statement of the resource constraints. He sets priorities among the programs and approves only as many as available resources allow. In the second case, the request may be documented or verbal, and the basis for the request may range from a detailed analytical study to a subjective statement that someone believes such a program would be worthwhile. Indications are that formal budgeting is rare -- few entrepreneurial programs meet the necessary conditions.

20. **Choice-Making**: Most strategic choices, whether they concern crises or entrepreneurial programs, are not made by consensus or by bargaining. Rather, it appears that one manager takes charge of each decision, and, while he often seeks the advice of subordinates and the analysis of experts, he alone makes the actual choice. The reasons for this are (a) the manager has more general information than any one of his subordinates, (b) he has a better understanding of the
preferences (or values) of organization power groups, (c) he has the authority to commit his organization to decisions, and (d) by charging one man with all the important decisions of his organization, they can somehow be interrelated. In making decisions, the manager must consider many factors, such as the effect on other decisions, the advice of subordinates and the analysis of experts, the resource constraints, the feasibility of proposed alternatives, the interests of power groups, the capability of the subordinate proposing the alternative, the timing of the decision (loss of information if premature, loss of opportunity if late). These factors are accounted for by three basic ingredients — models, plans, and values.

21. **Models for Choice-Making:** From the great array of information that he receives, the manager develops a number of models in his head. These models describe various conditions — the capabilities of particular subordinates, the reactions of parts of the organization to particular kinds of actions, the behavior of certain elements of the environment, and so on. **Ad hoc** information on events are the best kind of data for constructing these models. When the manager must make a choice, he is able to use his models to predict the consequences of particular alternatives.

22. **Plans for Choice-Making:** Also in the manager's mind are the organization's plans. These are not plans in the usual sense, but simply a number of specific entrepreneurial programs that the manager
hopes to initiate in the near future. Crises, factors of timing, new information, and so on, cause continual modification in the plans. Thus, they can never be made explicit, and always remain vague to everyone but the manager. When the manager must make a choice, he is able to test alternatives against the plans. Alternatives that work toward implementing the plans, and those that are not inconsistent with the plans, are acceptable. Thus, by evaluating all alternatives in terms of one set of plans, the manager is able to interrelate decisions. However, this process of interrelating (or integrating) must be crude, since the plans are always in a state of flux.

23. Values for Choice-Making: The power groups of the organization focus their attempts to influence organizational values on the manager. He develops an understanding of each set of group values, and uses them as an influencing factor in the making of choices. Most likely, he makes choices in terms of his own values, while insuring that he is not violating a specific preference of any organizational power group.

24. Hasty Choices: The manager is severely time constrained, therefore he cannot devote long periods of uninterrupted time to single decisions. To avoid superficial choice-making, he adopts a number of behaviors: (a) He breaks single important decisions into many sequential decisions that can be made over periods of time. (b) He delays decisions to allow himself time to collect information.
(c) He chooses subordinates rather than alternatives; that is, he evaluates the man who proposes the alternative, not the alternative itself. (d) He develops a large body of general knowledge about his organization, all this so that he is prepared to make hasty decisions.

While there is little literature on organizational strategy-making, it is well to compare briefly these hypotheses with those that do exist.\(^22\) Clearly, the economists' view — entrepreneurship, preference functions, rational choices from known alternatives and consequences — does not adequately express the complexity of the strategy-making process. There is more uncertainty, and dynamics play a greater role than the economists would lead their readers to believe.

The contemporary view, articulated by Cyert and March\(^23\) and Lindblom\(^24\) to some extent recognizes theses these shortcomings. Specifically, Lindblom's view of decision-making as a serialized process appears to have validity, as do his arguments concerning the reconstruction of data for new problems and the adjustment of ends (objectives) to means (alternatives).

\(^{22}\) The literature of strategy-making is discussed in Chapter II, Section 2.5.

\(^{23}\) Cyert and March, op. cit.

\(^{24}\) Braybrooke and Lindblom, op. cit.
However, both Lindblom and Cyert and March overemphasize the passive elements of strategy-making. They argue that organizations seek to avoid conflict, uncertainty, and major change; that organizations seek to satisfy constraints and to move away from ills rather than to attain objectives; that the coalition of power groups is very potent and strategy-making is basically a process of bargaining.

To put these arguments into perspective, it is necessary to recognize that strategy-making consists of both the handling of crises and the development of entrepreneurial programs. These writers appear to relate only to the crisis-handling activity. But it has been suggested in this research that entrepreneurship -- in effect, the search for the opportunity to change without the pressure to change -- is a driving force in the organization. By engaging in this innovation activity, the organization consciously accepts conflict in the form of a higher incidence of crises.

While power groups no doubt are able to influence choices, the evidence suggests that choice-making is characterized, not by bargaining, but by a high degree of managerial control. In essence, the manager has more knowledge than members of the coalition, therefore he chooses more or less as he sees fit. And while a large number of constraints enter into the making of any decisions, there is also indication that choices are made in terms of objectives. These exist in the managers' minds in terms of plans -- the set of proposed entrepreneurial programs.
Finally, because the organization adopts serialized behavior in the development of entrepreneurial programs, it cannot be concluded that organizations avoid major change. Rather, one might argue that the organization wishes to schedule major change so that its consequences can better be understood.

In conclusion, organizational strategy-making might be described as a process far more complex than the two most common views in the literature would indicate, and containing elements of both entrepreneurship and "muddling through".  

---

CHAPTER VII

PROGRAMMING MANAGERIAL WORK

It is true that whenever intelligent and educated men find that the responsibility for making progress in any of the mechanic arts rests with them, instead of upon the workmen who are actually laboring at the trade, that they almost invariably start on the road which leads to the development of a science where, in the past has existed mere traditional or rule-of-thumb knowledge. When men, whose education has given them the habit of generalizing and everywhere looking for laws, find themselves confronted with a multitude of problems, such as exist in every other trade and which have a general similarity one to another, it is inevitable that they should try to gather these problems into certain logical groups, and then search for some general laws for rules to guide them in the solution... The workman's whole time is each day taken in actually doing the work with his hands, so that even if he had the necessary education and habits of generalizing in his thought, he lacks the time and the opportunity for developing these laws...

Frederick W. Taylor¹

The evidence of this research suggests that there is no science in managerial work. That is to say, managers do not work according to procedures that have been prescribed by scientific analysis. Indeed, except for his use of the telephone, the airplane, and the dictating machine (which was used regularly by only one of the men studied), it would appear that the manager of today is indistinguishable from his historical counterparts. He may seek different information, but he gets much of it in the same way — from word-of-mouth. He may make decisions dealing with modern technology, but he uses the same intuitive (that is, non-explicit) procedures in making them. Even the computer, which has had such a great impact on other kinds of organizational work, has apparently done little to alter the working methods of the general manager.

Thus, the management scientist, despite his accomplishments in production and data processing, has done virtually nothing to help the manager manage. The most probable reason for this condition is the general lack of research on the work of the manager. With a dearth of descriptive research, there can be no effective normative (or prescriptive) research. As a result, the management scientist has gravitated toward the less ambiguous, more easily understood and quantifiable areas of organizational work.

The bridge from descriptive to normative research was discussed by Frederick W. Taylor who, at the turn of the century, developed analytical methods for work such as shoveling and lathe operation.
In his words, the following procedure was used to transform this work from art to science:

First. Find, say, 10 or 15 different men (preferably in as many separate establishments and different parts of the country) who are especially skillful in doing the particular work to be analyzed.

Second. Study the exact series of elementary operations or motions which each of these men use in doing the work which is being investigated, as well as the implements each man uses.

Third. Study with a stop-watch the time required to make each of these elementary movements and then select the quickest way of doing each element of the work.

Fourth. Eliminate all false movements, slow movements, and useless movements.

Fifth. After doing away with all unnecessary movements, collect into one series the quickest and best movements as well as the best implements. ²

In effect, Taylor first determined the procedures (or programs) used by capable workers and then he "reprogrammed" the work by using analysis and by making the new procedures explicit. And once procedures were made explicit, a vital step was taken toward automating them.

In the past, normative comments about managerial work were seldom grounded in descriptive research, and were directed at changing the style of the manager: "Managers should spend more time planning." "Managers should delegate more of their work." These general prescriptions ignored the realities of managerial work. Managers adopt

²Ibid, pp. 117-118.
specific working habits because of the nature of their environment, not because writers suggest they adopt them. They change their habits when the environment changes — when new pressures are exerted on them and when new technology becomes available. With a better understanding of the programs that managers use, useful normative research can be undertaken.

In the previous chapters, the manager's activities were analyzed in some detail; some distinguishing characteristics of their work were discussed; and, their basic roles were analyzed. In the first section of this chapter, this theory is brought together into a more strict description of managerial work. Specifically, a set of interrelated programs that managers appear to use are described. Then, using an approach similar to that of Taylor, the possibilities of using management science to design new, explicit programs to carry out some of this work are investigated.

7.1 Description: The Programmed Manager

To develop a science of managerial work, one begins by determining what programs managers use. The next step would be a detailing of the contents — the informational inputs and the decision rules — of these programs. This is a major undertaking, requiring extensive research on each program. A final step in the descriptive phase of the research would be the linking together of these programs to develop a full-scale simulation of managerial work. By all indications, managerial work is so complex that the development of a
full-scale simulation is well beyond the present capabilities of management science. Nevertheless, it is worthwhile to begin on phase one, and the theory of Chapter VI provides a basis for doing this.

It is clear from observation that the manager explicitly programs very little of his work. There were a few cases of programming -- a system of forwarding mail where the manager used a preprinted form with programmed instructions such as "prepare reply for my signature", "note and return"; the use of clocked meetings as a form of programmed scheduling; the use of budgeting procedures as partially programmed resource allocation. But these examples were rare. Rather, as noted in Chapter V, managers seem to avoid any activity that is routine. Explicit programs simply do not exist for most of the important work -- information processing and strategy-making. In the words of Herbert Simon, this work is characterized by the "unprogrammed decision", that is, the "novel, unstructured, and consequential" decision.

However, in a strict sense, there is clearly no such thing as an unprogrammed decision. The brain must use some procedure -- some higher order program -- to react to any stimulus. There are no unprogrammed decisions, only unexplained decisions. William Dill has written:

---

3See Section 5.3.

It is surprising how highly programmed most of our behavior is. Programs generally govern the time an executive starts work in the morning, the order in which he tackles such jobs as answering correspondence, the time he allocates to different persons or tasks, the 'decision' whether to read -- or to ignore -- certain incoming reports on company operations, and the manner in which he trains or controls his subordinates.\(^5\)

Researchers may be able to determine what these unexplained programs are when the managers who use them often cannot. The Editors of *Fortune* questioned a large number of managers, and drew the following conclusion:

Businessmen are remarkably candid about their own inability to analyze the act of decision.

\[\ldots\]Charles Cox, president of Kennecott Copper, says, "I don't think businessmen know how they make decisions. I know I don't."

\[\ldots\]Charles Dickey, chairman of the executive committee of J. P. Morgan and Company, says, "There are no rules."

Benjamin Fairless, ex-chairman of U.S. Steel: "You don't know how you do it; you just do it."

\[\ldots\]John McCaffrey, chairman of International Harvester: "It is like asking a pro baseball player to define the swing that has always come natural to him."

---

Dwight Joyce, chairman and president of Glidden Company: "If a vice president asks me how I was able to choose the right course, I have to say, "I'm damned if I know."

The New York real estate and theatre wizard, Roger Stephens, reversing Thomas J. Watson's famous maxim, says, "Whenever I think, I make a mistake." 6

Researchers have had greater success than these men. A well-known study by Geoffrey Clarkson established that a seemingly vague decision-making process -- the choice of an investment portfolio -- could be programmed by a researcher to be accurately simulated on the computer. 7 Although this study concentrated on a specialized decision, the results are dramatic enough to encourage speculation that eventually all managerial work will be explicitly programmed.

In the subsections that follow, a preliminary step is taken toward programming managerial work in an integrated way. Specifically, an attempt is made to distinguish the basic types of programs that managers use. The theory presented in previous chapters -- categorization of the manager's activities and description of his roles -- serves as the basis for this analysis. Where there is information on some of the basic decision rules (or heuristics) that managers use, they are discussed together with the appropriate programs.

---

6 Editors of Fortune, op. cit., pp. 164-165.
7 Clarkson, op. cit.
Nine types of programs are discussed below, dealing with scheduling, processing requests, handling crises, filtering and switching information, disseminating information, revising storage, defining entrepreneurial programs (i.e., organized means of improving the organization), executing entrepreneurial programs, and making choices. The programs and their interrelationships are illustrated at the end in Figure 21.

It should be noted that this list of programs is far from comprehensive. Managers use many other programs, some to deal with very unique kinds of stimuli. For example, the manager may react to a special interpersonal problem with a special kind of program. Indeed, he probably has a very large array of programs just to deal with different kinds of interpersonal relations.

The programs presented below are basically those evoked by independent and well-defined stimuli, the kinds of global programs that would be revealed during "structured observation".

7.1.1 Scheduling Program:  

The manager is bombarded with random stimuli. Most are external requests -- to devote time, to give information, to authorize decisions, to initiate changes. Others bring information, some

---

8 See Radomsky, op. cit., for a different and more detailed view of this program.
through channels which the manager has himself developed. Finally, the manager receives self-developed stimuli — he desires to take tours, carry out entrepreneurial activity, activate the organization, and create contacts. The manager uses the "scheduling program" to determine which stimuli actually reach him and in what order. It would appear that the following rules are used:

1. Handle the crises first.

2. Then, attend to those things that require managerial participation (ceremony, requests for authorization, annual budget reviews, requests from members of power groups, etc.).

3. Then, maintain the information flow (process the mail, receive the informal callers with information, etc.).

4. In the remaining time, work on active entrepreneurial programs.

5. If free time is left, conduct entrepreneurial probes (tour, monitor operating programs, seek new opportunities, etc.) to define new entrepreneurial programs. 9

(It should be noted that the manager carries out a number of other activities without actually treating them as independent and without passing them through the scheduling program. For example, during any kind of activity, in addition to carrying out its main purpose, he may seek information, develop personal contacts, activate the organization, or disseminate information.)

9 An understanding of this program will lead to important insight into the manager's goal system. From the program as described above, it might be concluded that the manager goal system is as follows: (1) Satisfy the external pressures, then the job demands (i.e., constraints). (2) Then continue to develop and seek new improvement in terms of growth and internal efficiency.
7.1.2 Programs to Process Requests:

Linked to the "scheduling program" are a series of programs designed to handle the particular requests that the manager receives:

A. Extraneous requests for the manager's time (ceremony, status requests, external board meetings, etc.) are analyzed to determine whether or not they will be undertaken. Does tradition require managerial participation? Must a power group be satisfied? Is there information to be gained? Are there contacts to be made? The manager may choose to participate in the activity (which is generally routine in nature), delegate the responsibility for participating, or refuse the request.

B. Outside requests for information, where the manager is asked to play the role of spokesman or expert, are analyzed as to (1) whether or not the manager should give the information, (2) whether or not he has the information (involves scanning storage).

C. Three kinds of requests to allocate resources are received by the manager — requests to authorize decisions to be taken, requests to participate in bargaining with other organizations, requests to direct the budgeting process. To decide whether or not to involve himself, the manager considers such factors as — the size of the resource commitment or potential payoff, the size of the risk, the sensitivity of the value tradeoff, the degree to which the process is routine, the importance of the precedent to be set, the manager's personal interest in the area, and the current nature of his time pressures.

To allocate the resources (i.e., to determine how to bargain or to budget, and to decide whether or not to grant authorization), the manager calls the "choice program" (described below).

D. Requests made of the manager to initiate change, that is, pressures from organizational power groups, are first analyzed to determine if they have reached the crisis stage. If they have, the manager calls a "crisis-handling program", which is really an accelerated version of the "program to execute entrepreneurial programs". He also cancels or postpone certain other activities of a less pressing nature. If the pressures have not reached the crisis stage, they become ordinary informational stimuli, feeding into the "information filtering and switching program".
7.1.3 Information Filtering and Switching Program:

From one viewpoint, the manager is basically a sophisticated information collecting and processing system. He designs the system of communication by developing contacts, joining trade organizations, encouraging subordinates to bypass internal channels, subscribing to periodicals, and so on. Once designed, this system automatically and continually feeds him with information. Furthermore, he actively monitors the operating programs of his organization; he remains alert in the hope of finding new environmental information, and, he receives unsolicited information from his organization. The result is a diverse and continual flow of information to the manager. The "information filtering and switching program" is used to determine whether each unit of information will be:

- forgotten
- disseminated to another member of the organization
- used to revise storage, or
- used for an entrepreneurial program

7.1.4 Revise Storage Program:

Much of the information the manager receives is not used immediately, but is "remembered". In effect, it is maintained in "storage" or used to revise the manager's memory of his world. This information -- maintained in raw form, cumulated in some sense, or combined to form new information -- might be used in one of the following storage categories:
models of the environment (e.g., technical, market, and political trends, competitor actions)
models of the organization (e.g., reaction of a department to imposed change, capability of a subordinate, form of an operating program)
general organizational and environmental data (e.g., trade statistics, age of a subordinate)
listing of previous decisions and events and active entrepreneurial programs
cumulative impressions of the value systems of organizational power groups
plans in the form of inactive or as yet uninitiated entrepreneurial programs (those awaiting free time, those awaiting an event, those awaiting a greater cumulation of stimuli, those in the form of problems awaiting means of solution, those in the form of opportunities awaiting areas of application, those awaiting more background data)

7.1.5 Information Disseminating Program:

The manager feels that some of his information will find uses in other parts of his organization. For each unit of this information, he uses his models of the current and general needs of organizational members to determine where information should be disseminated. Some information goes to standard data banks, that is, to subordinates who act as specialized nerve centers (e.g., market research may store all new marketing ideas); some information goes to people working on special projects, and some information, particularly that dealing with current events, goes to the deputy who is maintained as an auxiliary nerve center. The manager must then choose the channel by which to disseminate the information — forwarded mail, initiated memo, staff letter, verbal hint, and so on.
7.1.6 Program to Define Entrepreneurial Programs:

From the problems and opportunities that the manager finds through his entrepreneurial activity, from those that come up to him through his organization, and from the pressures exerted on him that have not yet reached the crisis stage, the manager has the option of defining entrepreneurial programs. This action is an important part of managerial work, for much of the remaining execution of entrepreneurial programs can be carried on by organizational members using specialized and partly routinized programs.

The factors involved in defining an entrepreneurial program appear to be (1) the manager's current work load, including the number of entrepreneurial programs currently in active inventory, (2) the manager's personal interest in the issue, (3) the potential loss or gain in resources from acting and not acting, (4) the frequency of the stimulus encouraging the manager to act, and the influence of the source of the stimulus, (5) the availability of means -- a place to use an opportunity, a method to solve a problem, and (6) timing factors -- the need to await completion of another program, or to await an event. The manager has the options of ignoring the stimulus, defining the program immediately, or storing the stimulus until he is prepared to initiate the program.
William Pounds has taken a complementary view of this program definition step, a process he refers to as "problem finding". He claims that managers compare the stimuli that they receive to four kinds of models—historical models, budget models, extra-organizational models, and other people's models. When the manager receives a stimulus—for example, a statement of sales for the period—he may use these four kinds of models to decide whether or not he has a problem. Thus, if sales are too low with respect to historical trends, with respect to the budgeting figures, with respect to competitors' sales figures, or in the mind of an important shareholder, the manager may decide that he has a problem, and he may define an entrepreneurial program.

7.1.7 Program to Execute Entrepreneurial Programs:

Once the manager has decided to define an entrepreneurial program, the following general steps are used in its development:

1. The manager evokes a preliminary data gathering step. He wishes to find as much information as possible, and he does so by opening information channels, and by seeking the help of deputies, subordinates, personal contacts, and experts.

2. The major decisions are serialized; that is, broken into sets of smaller decisions which are taken sequentially and separated by delays. Delays may be caused by the need to wait for

---

feedback of information on an action taken, or they may be caused by timing factors -- the need to wait for the occurrence of an event, the need to wait until the manager is better informed, the need to wait until the manager is less busy.

3. Final approval for the program may be sought at a higher level in the organization when no major decisions remain.

To make each of the decisions associated with an entrepreneurial program, including the decision to approve the program, the manager calls the "choice program".

7.1.8 **Choice Program**

Managers make choices as they process requests for authorization, as they budget and bargain, as they handle crises, and as they execute entrepreneurial programs. The "choice program" is used, and it considers some of the following factors in evaluating an alternative:

- resource constraints (insure no violation)
- precedent decisions (insure compatibility)
- plans (measure consistency and contribution to attainment)
- preferences of power groups (insure compatibility)
- organizational and environmental models (test feasibility)
- timing factors (measure losses and gains from delaying)

This information is drawn from storage.

These appear to be the more basic programs that managers use in performing their work. They are illustrated in Figure 21. It would seem likely that the interrelationships are far more complex than the diagram indicates, and there exist perhaps hundreds of other programs within, and in addition to, the programs presented.
Figure 21: THE MANAGER'S PROGRAMS

random stimuli

SCHEDULING PROGRAM
ordering the stimuli

INFORMATION FILTERING AND
SWITCHING PROGRAM

INFORMATION DISSEMINATING
PROGRAM

PROGRAM TO DEFINE
ENTREPRENEURIAL PROGRAMS

REVISE STORAGE
PROGRAM

PROGRAM TO
EXECUTE
ENTREPRENEURIAL
PROGRAMS

STORAGE

PROGRAMS TO PROCESS REQUESTS

Requests to Participate

Outsider Requests
for Information

Requests to Allocate
Resources (authorize,
budget, bargain)

Requests to Take Action
(pressures)

CRISIS-HANDLING
PROGRAM

CHOICE PROGRAM
This outline of managerial programs has been presented to indicate the kind of research that should lead to a better understanding of managerial work. Even in this crude form, a number of useful normative conclusions can be drawn from the descriptions of these programs.

7.2 Prescription: Reprogramming Managerial Work

It has been argued that the management scientist has had little impact on the work habits of the manager. Of late, however, interest in this topic has developed rapidly, particularly on the part of information theorists who speculate about the role of the computer at the managerial level, and on the part of long-range planners who attempt to program strategy-making.

In this section, a set of activities in which the management analyst may fruitfully engage are presented. Management analysts are those members of the organization who are expected to design analytical systems for the accomplishment of work. These people are generally trained in some form of management science, and include those with the titles of "operations researcher", "industrial engineer", "systems analyst", "long-range planner", and so on.

The analysis of the characteristics of managerial work, presented in Chapter V, indicates why it is necessary to draw on the skills of the analyst. In essence, the manager is severely time constrained; he cannot devote long periods of time to single issues, no matter how
complex they are; he gravitates toward the current and concrete aspects of issues, often when there is a need for someone to investigate them in a theoretical and historical way; the manager prefers verbal contact, when often there is a need for detailed literature search. The analyst is able to complement the manager. He has the time, the tendency to concentrate on issues, the experience in developing knowledge from formal documents, the training in the application of analysis and theory. Thus, if certain problems can be overcome, it is reasonable to expect that analyst can be of great service to the manager.

Two major problems must be overcome. First of all, the analyst must fully understand the programs that the manager uses. The manager's system is complex; it cannot be redesigned until it is much more fully understood than it generally is today. More research will provide this understanding.

Second, in order to design and operate effective new programs, the analyst must gain full access to the manager's information storage. Based on the findings of this research, it seems evident that the management analyst has been hindered at the senior management level largely because he has had very poor access to the manager's information. The manager is the informational nerve center of the organization, and the manager develops the contacts from which he derives much important environmental information. Much of his useful information is not
documented, and much of it is ad hoc, unsubstantiated, and non-quantitative. Thus, the manager has no way of systematically transferring it to the analyst.

The designer of the formal information system has no access to much of the information that the manager uses, so it is folly to believe that he can design an effective information system for the manager. Furthermore, effective strategy-making requires effective information. How, therefore, can one expect the planner, removed from this flow of external and internal information, to do effective strategic planning? He may do an effective job with a well-defined part of the planning process involving documented information—economic forecasting, for example. But as soon as he is called upon to relate his plans to the operations of a particular organization or its immediate environment, he is doomed to fail. He is not sufficiently aware of the events in and around his organization. For good reason, therefore, the literature documents many manager complaints of naive planning and many planner complaints of disinterested managers.

Thus, the management analyst today has a great need to break the manager's virtual monopoly on undocumented information. This is the information that drives the organization, yet the computer cannot receive it or handle it in its usual form; the planner has no access to it; and the control system, as presently conceived, would be unable to make use of it.
It will require a specific and concentrated effort, on the part of both managers and analysts, to develop a team of properly informed analysts in an organization. Perhaps such an effort would take the following form:

The manager is able to develop an auxiliary nerve center by appointing a man as deputy and then holding frequent review sessions with him to keep him informed. Similarly, one method of developing an informed analytical staff, which could do meaningful work for the manager, is to attach it to the manager's office and provide a means of briefing it regularly. One can, perhaps, envision the manager writing a weekly summary of his activities containing information that hitherto remained undocumented. This might include a listing of the pressures exerted on the manager, a summary of the information gained from contacts and in general discussions, a listing of the ideas brought to the manager's attention, a list of requests for authorization and the actions taken, a summary of the strategy, negotiation, and review sessions, and so on. This briefing would provide the basis for a new type of organizational data bank for the first time containing in explicit form the important organizational information.

An informed team of analysts would be able to bring science to bear on the manager's work, and would be able to relieve the manager's severe time problems and make his output far more consistent than it has ever been. The areas to be discussed below — scheduling activity, information reporting, information disseminating, and strategy-making — appear to offer interesting "reprogramming" possibilities for the analyst.

In the tradition of Taylor, the term "reprogramming" is used to refer to the process whereby the analyst determines the actual program currently in operation, and then uses his analytical skills to study each step of the program, to test alternative steps, and to redesign
the program where necessary, making use of any available aids. In reprogramming managerial work, one would expect the most important aid to be the computer, because of its speed and consistency in processing information.

Of all the activities that managers perform, a large group cannot be reprogrammed, simply because they require flexible human responses. A manager must activate and motivate his organization; a manager must engage in ceremonial activity; a manager must develop status contacts. A second group of activities, possibly a very small group, can be completely reprogrammed and automated. Certain information sorting and scheduling activity may one day fit into this category.

The largest group includes those activities that lend themselves to partial reprogramming. In effect, "man/machine" and "manager/analyst" programs can be developed to deal with most of the important information processing and strategy-making activity. The manager would contribute his specialized information, his understanding of organizational values, his appreciation for the dynamics of the system, and his authority to make choices. The computer or the analyst would contribute explicit programs, consistent and explicit means of handling information, and the time needed to conduct analysis and carry out the activity. The four types of reprogramming discussed below fit into this third category.
7.2.1 Reprogramming Scheduling Activity

As noted previously, there appears to be an enormous opportunity
cost to the manager's time. Lacking time, the manager inhibits
organizational growth by postponing requests for authorization, by
delaying entrepreneurial programs, by disseminating less information,
and so on. Furthermore, to the extent that the manager inadvertently
satisfies his own interests, as opposed to those of his organization,
in allocating his own time, he is making poor scheduling decisions.
It would appear, therefore, that scheduling is a fruitful, as well as
a relatively simple activity to reprogram. In fact, it is surprising
that there has been so little analytical effort in this area,
considering the great amounts of research that has been undertaken on
worker efficiency and fatigue.

A scheduling program would involve (1) determining the manager's
time constraints, (2) defining and categorizing the demands for the
manager's time, and (3) developing a set of adaptable scheduling rules
to control time allocation. Step one can easily be achieved by having
the manager define his working hours, his attitude to evening and
lunchtime work, and so on. Likewise, it would be simple to categorize
the various requests for the manager's time. This has been done in
this research -- time for ceremonial functions and status requests,
time for information processing, time with the deputy, time to handle
bargaining and authority requests, time to work on entrepreneurial
programs, time to tour, and so on.
A set of scheduling rules might be established as follows:

1. Certain blocks of time would be clock scheduled to allow for greater efficiency and coordination of efforts. Managers now tie very little of their activity regularly to the clock, thus they spend large amounts of time coordinating efforts with subordinates. The rules might call for the blocking out of (a) a certain time each day for mail processing, (b) a weekly deputy review session, (c) various monthly functional review sessions, (d) a particular half-day each week for review of the entrepreneurial programs in active inventory, (e) a fixed time for touring and other entrepreneurial work.

2. Certain other times would be blocked out to satisfy requests for the manager’s time. Various priorities could be established — that requests for authorization receive first preference, for example. Other rules might insure that, on the average, a certain proportion of time is spent with personal contacts. A different set of rules would be used to determine which requests are to be delegated to other members of the organization.

3. One rule would insure that scheduled activity is so staggered that numerous blocks of time would be left free throughout each day. This would allow the manager to adapt to dynamic conditions — to receive "instant communication" from subordinates, to work on crises, to return telephone calls, etc.

4. The day would be designed with regard to working efficiency. Depending on the manager’s preferences, variety or consistency between successive activities could be scheduled. A taxing activity could be followed by ceremony, by mail processing, or by information dissemination. Rest periods — a scheduled activity for every worker in the organization save its manager could be arranged so as to raise efficiency. If the manager is most effective in the mornings, then information processing and resource allocation activity would be scheduled for the morning, ceremony and the like for the afternoon.

Does a system like this really differ from that used by managers or their secretaries? In several important respects, it does: (1) By making his scheduling heuristics explicit and allowing them to be made into standard rules, the manager need concern himself less with time
allocation. Much of his time is therefore freed for other activity. A clerical assistant, or perhaps one day a computer, can do this job for him.

(2) The manager tends to schedule activities at the request of others, and leaves to chance much of the more important work — monitoring activity, developing entrepreneurial programs, touring, information disseminating, etc. Simon has suggested that there exists a Gresham-type law of managerial work, that programmed work tends to drive out unprogrammed work.\(^{11}\) Two corollaries of that law would be that scheduled work tends to drive out unscheduled work and unimportant work tends to drive out important work. By explicitly scheduling the less demanding, but more important, activities — those related to information processing and strategy-making — the manager would give them the attention they might not otherwise receive. Carlson drew a similar conclusion:

There is a tendency for business executives to become slaves to their appointment diaries — they get a kind of "diary complex". One can seldom see two business executives talking together without their diaries in their hands, and they feel rather lost unless they know that they have these diaries within easy reach. When they start their working day they will look up what they have to do, and whatever is in the diary they will fulfil punctually and efficiently. If one wants to be sure of getting something done by this group of people, one has to see to that it gets into their diaries. One should

\(^{11}\) Herbert A. Simon, *The Shape of Automation*, p. 67.
never ask a busy executive to promise to do something e.g. "next week" or even "next Friday". Such vague requests do not get entered into his appointment diary. No one has to state a specific time, say, Friday 4:15 p.m., then it will be put down and in due course done. The more exactly the time is specified, the more certain it will be that the task will be attended to. The trouble is, however, that sometimes what is entered in the appointment diary is not what is of most importance for the chief executive but what is important to other people. If such tasks as inspection tours and visits of subordinates in their offices are to have the same chance of being done as board meetings or lunches with business associates they must have a definite place in the executive's normal working routine.\footnote{Carlson, \textit{op. cit.}, p. 71.}

(3) By making his scheduling rules explicit, the manager is able to insure that his time is allocated according to organizational need. The influence of his time allocation on the activities of the organization can be recognized, and there will be less tendency to give activities of more personal interest precedence over those of greater organizational importance.

(4) With a set of visible rules --- a scheduling model in effect --- and the data generated by using it, various analyses could be undertaken. Specifically, the allocation of time between basic activities --- information processing, program development, figurehead tasks, etc. --- could be varied and the effects on the organization measured. For example, it may be found that a particular manager should spend more or less time collecting information.
7.2.2 Reprogramming the Information Reporting System:

It would appear that much of the traditional work on managerial information systems has been in vain. These systems are designed to give the manager routine, quantitative reports on internal operations; he, in turn, seeks non-routine information on events taking place in the environment. Managers use information to change their models, to define entrepreneurial programs, to inform other people. While much of this activity calls for information in the form of stimuli, the formal information system gives him information which, at best, is used for reference. In Neustadt's words, the manager needs "tangible detail" not "bland amalgams".\textsuperscript{13} An effective managerial information system will emphasize the following:

1. \underline{Ad hoc information}: events, ideas, specific organizational problems

2. \underline{External information}: actions of competitors, technological breakthroughs, political events, market changes, etc.

3. \underline{Unsubstantiated information}: gossip, hearsay, projections, speculations.

Today, the manager is the designer of the system that brings him this information. He develops external contacts, subscribes to a set of periodicals, joins trade organizations, and encourages subordinates to circumvent the established lines of communication. Although it

\textsuperscript{13}See full Neustadt quote in Chapter VI, Section 6.2.1.
gives the manager what he needs, the system is basically a very crude and inconsistent one. Note, for example, the emphasis some of the managers studied put on letters from clients. How representative are the comments of people who take the trouble to write about a television show sponsored by the company, or to write to praise or condemn some work performed for them? Managers must have some gauge of client satisfaction; given no other information, they must put their trust in these letters.

Must the manager design his own information system and must he do his own filtering? It is to be hoped that he can call on his team of analysts for help, for these are time-consuming tasks, that he must do on a part-time basis. The analyst has the available time and can develop the knowledge of information theory to design and partially operate a far more effective system.

The analyst might begin by finding out what information a particular manager needs, by studying what he seeks, what he receives, and what he uses. Does he disseminate many entrepreneurial ideas; does he spend much time touring to find problems; does he attend many trade conferences; are technological reports of great interest to him; what periodicals does he receive; does he use these periodicals to seek information on trends in the industry, or is he basically interested in undocumented gossip?
Then, the analyst can undertake a comprehensive search for other sources of the same information. Can a better mix of periodicals be received; what other sources of technological reports exist; can information from touring be gained in other ways; what are the different sources of trade gossip? Finally, the analyst can put together a carefully designed information system which not only covers more channels, but also does much of the manager's filtering for him. Once the manager's needs are known, there is no need for him to scan periodicals and reports. The analyst can do much of the scanning for the manager, and can then present him with the relevant facts—the ideas, the problems, the bits of gossip, the notices of events.

7.2.3 Reprogramming the Information Disseminating System:

It was demonstrated above that the analyst can process much of the manager's information. However, there is much verbal information he cannot process, simply because he can never gain access to the manager's personal contacts and can never be accepted as the organization's nerve center. It was suggested earlier that the manager would be able to keep his team of analysts informed by documenting much of this verbal information.

Combining these two reporting systems—the system by which the analyst reports information to the manager and the system by which the manager briefs the analyst—there can emerge an explicit data bank.
This is a vital prerequisite to the development of a science of managing—a data bank of the important organizational information that can be easily manipulated and transmitted because it is documented.

This data bank can serve as the focus of a more systematic information disseminating system, eliminating many of the weaknesses of the old system. The amount of information disseminated need not be a function of the free time the manager has available. Furthermore, when a manager leaves the organization, he need not carry away with him the information system. Those who work at a distance from the manager, where verbal communication is difficult (overseas, for example), need not be at a disadvantage relative to their colleagues at the head office who have verbal access to the manager. And of greatest importance, a documented data bank provides the basis for reprogramming strategy-making.

The analyst will have to develop a better understanding of the manager's "information disseminating program" in order to effectively reprogram the process. Disseminating is basically a sorting procedure. The manager has knowledge of the slots—the information needs of various organization members—and he sorts information accordingly. The analyst must have a means of stating these dynamic needs for information, to be used as a basis for disseminating information.
A number of theorists have speculated on the possible uses of the computer at the chief executive level.\textsuperscript{14} It would appear that the computer will become useful to the extent that the analyst is successful in documenting the manager's information and in establishing the informational needs of various organizational members. However, the information to be processed in a reporting and disseminating system requires either such complex handling -- for example, problem definition -- or such simple handling -- for example, forwarding from one manager to another -- that the use of a computer would not seem to be warranted. Furthermore, while the amount of information to be handled may be substantial, the number of people involved in an average disseminating system may be few -- namely those at the senior executive level. The cost of coding the information would seem to outweigh in most cases the savings effected by computer sorting and printing.

If one wishes to speculate about sophisticated uses of information processing hardware, one might envision an organization of the future with teletype terminals in the office of each senior executive. Then, true to the manager's information needs, the transmission of "instant communication" would be automated. An informed executive would simply choose which colleagues were to receive a current bit of news; his secretary would then key in the code to open the proper channels; and

\textsuperscript{14}See Myers, \textit{op. cit.}
she would type the message which would appear simultaneously in the appropriate offices. Perhaps, as in a newspaper office, the urgency of a news item coming in on the terminal would be signaled by the use of one, two, or three rings of a bell.

It has been popular among management scientists to debate the centralizing vs. decentralizing effects of the computer on the organization structure. From the discussion above, it would appear that the computer and any other system that programs and expedites the flow of currently inaccessible information will have a definite decentralizing effect on the organizational structure. Without any aids, the manager keeps the important organizational information in his head, and he disseminates little of it, and to few people. He thus maintains centralized control over decision-making by virtue of his more comprehensive knowledge. Given an efficient means of disseminating information, the manager will be encouraged to delegate more decision-making power to well-informed subordinates. This is the short-run argument.

In the long-run, the analyst will develop means of reprogramming strategy-making. One day, perhaps, with powerful computer programs and access to the necessary information, he may be able to recentralize the organization structure by having his computer make better decisions than those that can be made by a group of informed, decentralized managers. In effect, the powerful computer of the future becomes like the powerful manager of today.
7.2.4 Reprogramming Strategy-Making

Clearly the most complex, although potentially the most lucrative, job facing the management analyst today is the reprogramming of strategy-making. The process of strategy-making is extremely difficult to conceptualize, and as a result little research and literature exist on the subject. However, of late a fundamental debate appears to be forming in the literature of management science between those who favor a kind of Darwinist approach to strategy-making and those who propose the development of a grand planning process.\(^{15}\) To one group, strategy evolves as the organization reacts to environmental pressures; to the other group, strategy is created through active analysis. Followers of this latter school of thought envisage the use of analytical programs to develop ambitious, integrated strategies. Typical of this group are H. Igor Ansoff who, in *Corporate Strategy*,\(^ {16}\) describes a detailed procedure for making specific diversification/expansion decisions, and Hitch and McKeen who, in *The Economics of Defense for the Nuclear Age*,\(^ {17}\) outline the planning-programming-budgeting and cost/benefit techniques later adopted by Robert McNamara.

---


\(^{16}\) Ansoff, op. cit.

\(^{17}\) Hitch and McKeen, op. cit.
in the United States Department of Defense. Their analytical approaches derive from the economists' view of "rational" decision-making. Objectives are stated in advance; emphasis is placed on searching for alternatives and on considering all consequences; a significant attempt is made to quantify all the costs and benefits of each alternative; the "optimum" alternative is sought.

The well-known critics of the "grand plan" approach include Cyert and March, who wrote *A Behavioral Theory of the Firm*, and Charles E. Lindblom. In *A Strategy of Decision*, he argues that the "synoptic" approach of the economist must fail because it is not adapted to:

- man's limited problem-solving capacities
- the inadequacy of information
- the costliness of analysis
- failures in constructing a satisfactory evaluative method
- the closeness of observed relationships between fact and value in policy-making
- the openness of the system of variables
- the analyst's need for strategic sequences of analytical moves
- the diverse forms in which policy problems actually arise.

The result, which has been discussed in Chapter VI, is that managers evolve strategy over time as they make a wide variety of resource allocation decisions. They tend to break their entrepreneurial

---

18 Cyert and March, *op. cit.*

programs into series of sequential decisions because of the dynamics of their environment. Neither their search for nor their evaluation of alternatives is conducted according to any explicit design, and organizational values are applied to decisions in some mysterious, subconscious manner. The strategy-making process appears to be, on the whole, non-integrated, although the manager, by virtue of his knowledge of all important precedents and his vision of the organization's future, can crudely interrelate decisions. Thus, strategy-making is not characterized by "grand planning". Although critics of this approach underestimate the role of entrepreneurship, the power of the manager, and the ability of the organization to impose major change on itself, there is little doubt that they present a better description of organizational strategy-making as it exists today.

Must strategy-making remain as an intuitive procedure carried on solely by the manager? There are good reasons why it should not:

(1) The manager is time constrained while his team of analysts is not. What is a part-time job for the manager is a full-time job for the planner. A U.S. Senator has commented:

You know the typical week in the life of a Cabinet officer -- seven formal speeches, seven informal speeches, seven hearings on the Hill, seven official cocktail parties, seven command dinner engagements. It is a schedule which leaves no time for the kind of reflection essential for creative planning. What they can do, should do, must do -- and all that they should be asked to do -- is to pass judgment on sharply defined policy issues.
Of course Cabinet members have the obligation to encourage and back the officers in their departments who are charged with policy planning. The responsibility of the policy planner should run clearly to his department head. In this way staff planning can be geared into line decisions and the department head can support and strengthen the hand of the planner.

But I am convinced that we will never get the kind of policy planning we need if we expect the top-level officers to participate actively in the planning process. They simply do not have the time, and in any event they rarely have the outlook or the talents of the good planner. They cannot explore issues deeply or systematically. They cannot argue the advantages and disadvantages at length in the kind of give-and-take essential if one is to reach a solid understanding with others on points of agreement and disagreement. 20

(2) As organizations grow and decisions become more complex, the relative cost of analysis decreases, while the intuitive methods of the manager, which are slow to improve, become less acceptable. Furthermore, as it becomes economically feasible to document more and more of the information, the programmed approach gains in advantage.

Charles J. Hitch, who was brought by McNamara to the Defense Department to implement the changes proposed in his book, has written:

Almost never do we find one person who has an intuitive grasp of all the fields of knowledge that are relevant to a major defense problem. We may be able to assemble a group of experts, each of whom has a good intuitive grasp of the factors

relevant for answering one of the many subquestions and after discussion emerge with a fairly unequivocal answer. But in general, and especially when the choice is not between two but among many alternatives, systematic analysis is essential. And when the relevant factors are diverse and complex, as they usually are in defense problems, unaided intuition is incapable of weighing them and reaching a sound decision.\textsuperscript{21}

(3) It is extremely difficult to integrate a strategy that evolves. An explicitly planned strategy can more easily be integrated.

Thus, the "planning dilemma" may be summarized as follows: The organizational system does not lend itself to explicit strategic planning. The information and values needed for strategy-making are not documented and are not, therefore, generally available to the planner. Furthermore, the dynamic and ambiguous nature of the organizational system encourages the use of an evolutionary approach to strategy-making. However, the increasing complexity of the strategic decision requires that it receive more time than the manager has been able to give it. Also, analytical programs should be used to deal with the complexity and to insure that decisions are consistent with one another. In brief, managers have the effective information, planners have the effective technology.

Thus, one must envision reprogrammed strategy-making as a system combining both the evolutionary approach and analytical planning. Such a system would draw on the manager's information, his knowledge of organizational values, his ability to adapt to the dynamics of the system, and the planner's time and analytical resources. In effect, there would develop a kind of "man/machine", or "manager/planner" system.

Such a system would likely be built around a set of flexible strategic plans, in the form of proposed entrepreneurial programs. To some extent, these programs would be initiated by programmed entrepreneurial activity. In addition to the plans, the data used in choice-making might eventually be combined into a set of computer models for use by the manager in "real-time". The plans and the models would serve as the basis for daily choices—those associated with requests for authorization, bargaining, crisis-handling, and so on. Crises would be handled by the manager, but the informed planner would be able to provide special analytical services.

This three-part system, consisting of plans, models, and crisis services, is described in detail below:

1. **The Set of Strategic Plans**: As discussed in Chapter V, managers appear to develop in their heads organizational plans in terms of the entrepreneurial programs that they would like to initiate. To some extent, these plans are used to interrelate decisions, since they are in effect a common set of objectives against which to test all decisions.
It would appear to be worthwhile to devote more time to the development of these plans and to making them explicit. Capital budgeting (or, planning-programming-budgeting as it is called in the government) is designed to do this, but the weakness of this system is that it is concerned only with those entrepreneurial programs that involve the allocation of large sums of money. A comprehensive planning system must deal with all issues in which managers take an interest, including reorganizing, raising funds, planning research and development, working out promotion campaigns, improving weak departments, and so on. In many of these cases, the resources to be allocated are non-monetary (e.g., the time of specialists, the reputation of the organization) or the organization is not actually allocating resources but is risking the loss of existing resources.

Three steps are involved with this planning process—entrepreneurial activity, program design, and choice-making.\textsuperscript{22}

\textbf{Step one: Programmed Entrepreneurship:} The manager defines entrepreneurial programs as a result of (1) his own entrepreneurial activity (looking for problems and opportunities), (2) the entrepreneurial activity of his subordinates, (3) and the pressures exerted on him by power groups.

\textsuperscript{22}This is consistent with Simon's decision-making trichotomy—intelligence, design, and choice activity. See The New Science of Management Decision, \textit{op. cit.}
Some of this work can be carried out by the planner as a form of "programmed entrepreneurship". Specifically, he can analyze:

- the changing environment (political, economic, technological, and market trends)
- the organization's strengths and weaknesses (successful areas of operation that suggest exploitable skills, and relatively weak areas that suggest the need for change)
- new opportunities available for exploitation (new production processes, new products to market, better organization structures, new methods for constructing facilities, etc.)

The manager finds this information by reading trade periodicals, attending conferences, touring his organization, conversing with subordinates and contacts, and so on. Either directly, or through the manager, the planner can have access to this information. In addition, he has the time to undertake a more comprehensive search for entrepreneurial information. At the simplest level, he can scan more literature than can the manager. At more sophisticated levels, he can conduct market research to find new marketing ideas, he can carry out forecasting studies, and so on.

---

23 In forecasting, it would appear that the planner must reorient his efforts, so that he spends more time to predict contingent events (e.g., trade legislation, technological breakthroughs) and social change (e.g., consumer taste, governmental action), and less time on quantitative forecasting relating to economic trends. Also, his job must be expanded to include the determination of actual problems and opportunities in addition to the determination of trends.
The planner is then able to collect all the possibilities for entrepreneurial programs, discovered by himself and other members of the organization, and he can then begin to develop the more promising ones.

**Step two: Programming the Design and Integration of Entrepreneurial Programs:** Whereas the manager interacts with a large set of entrepreneurial programs intermittently, the analyst is able to devote concentrated periods of time to designing them and to integrating them into a unified set of strategic plans.

Given access to the manager's information, the planner is able to analyze particular opportunities, problems, and pressures, to determine where entrepreneurial programs are justified. Then, the planner is able to design and schedule the steps of the program.

By making explicit plans using an integrated process, resource constraints can be accounted for realistically, and meaningful priorities can be set. In contrast, when programs are designed independently, it is difficult to account for resource constraints and to set priorities. Furthermore, planners can work without interruption while managers must delay their work on entrepreneurial programs when crises arise.

The planner takes the set of entrepreneurial programs and welds them into a strategic plan by (1) assessing the total resource constraints and developing appropriate priorities, and (2) sequencing
the steps in the various programs so that they interrelate in a logical fashion.  

Certain entrepreneurial programs would lend themselves readily to analytical programming. These are the ones that are included in capital budgeting procedures today. The resource constraints, the demand for resources, and the program benefits are well-defined; the relevant information is documented and static; timing is not an important factor; and, the types of decision recurs frequently. However, a larger number of other entrepreneurial programs are not so well-defined, the information is not so easily available, and timing is an important factor. In these cases, the planner would have to adopt a significantly new approach to planning.

Traditionally, plans were presented as sets of determinate decisions, and in theory the manager was unable to alter them. For some entrepreneurial programs, such as the second group described above, the approach is inadequate. The plans covering these programs must be made to allow the manager to react to the dynamics of his system. With plans designed in "decision-tree" form -- that is, as strings of decision points -- the manager would be able to choose the time when he wished to make a decision, and choose the direction in which he would like to go at that time (i.e., have the option of choosing more than one alternative). For example, the manager may have the option

\[24\text{PERT, for example, is one method for doing this.}\]
of finalizing an expansion program only after he feels he has been able to assess the mood of the government with respect to monetary policy; or, he may have the option of choosing from among a number of possible new organizational structures once the results of personnel changes have manifested themselves.

Thus, the planner works out a number of alternative plans and considers timing factors, so that the manager's job is made easier when the time for making the decision arrives. In the words of one writer, the planner will use a "Lewis-and-Clark" approach, rather than a "Cook's-Tour" approach.\textsuperscript{25} The manager will have the option of changing his course en route.

\begin{center}
\textbf{Lewis and Clark Plan} \hspace{2cm} \textbf{Cook's Tour Plan}
\end{center}

\textit{Step three: Programming Choice-Making: Planning requires numerous choices, both when the plan is being designed, and when it is being implemented. Choices involve trading off organizational values (growth for profit, employee welfare for internal efficiency, etc.), and they involve commitment on the part of the manager who must remain}

responsible for them. To the extent that the issues involved in a choice are of a factual nature, and to the extent that the manager can express an explicit preference function to deal with the remaining value elements, choice-making can be programmed. However, there is no research to indicate that it is possible to develop an explicit preference function. And as long as organizational values are ill-defined, dynamic, and known only to the manager, choice-making must remain the prerogative of the manager. The planner’s role is in rationalizing all the factual elements of a decision, and in clearly defining the alternatives in terms of the values involved. Thus, when the manager must make his choice, his job is made easier by the existence of clear information.

In addition to preparing the information for the manager, the planner may be able to perform one other important function — he may be able to develop a set of models that the manager can use to help him make choices.

2. Models for Managerial Decisions: The manager appears to develop various models in his head for use in making choices. Given access to the manager’s information, the planner may begin to build some of these models analytically.

A variety of models might be constructed. The plans of the organization serve as one kind of model against which to test alternatives. An example of this form of model is a PERT or CPM application, whereby a particular entrepreneurial program, often a
construction program, is described by the series of activities that will be taken before completion. If the manager must make a decision which affects this program, he can use the model to determine, for example, whether certain alternatives will delay construction.

Other models could be constructed to describe the workings of the organization, and the behavior of the environment. For example, work is currently being done on Industrial Dynamics, a means of modeling the organization and its immediate environment in terms of feedback theory, and on input/output grids, a means of modeling the direct and indirect trading relationships between industries, or between economies. In addition, models could be constructed for special situations. For example, a manager entering labor negotiations may find use for a model that would calculate, in real-time, the cost of any wage proposal.

These models would be used in the manager's daily choice-making activity. In addition to choices related to entrepreneurial programs, the manager must decide on requests for authorization, he must negotiate with other organizations, and he must make choices associated with crises. While the analyst cannot completely reprogram any of this choice-making activity, there is good reason to believe that the manager would make use of models to interrelate choices and to test the feasibility, the costs, and the benefits of alternatives.
Given the use of a complete set of models, the manager would be able to function in a true man/machine system. With a console nearby, linked to a real-time computer, the manager would be able to call upon the model needed for a particular choice-making situation. This is an appealing picture, but clearly one that will be a very long time in coming. First, planners will have to gain access to the manager's information. Then they will have to build very powerful models that can be adapted as readily as can the manager to new information. Most likely, much time will pass before the analyst possesses the skills to build such models.

3. **Real-time Analysis Under Crisis:** In addition to developing strategic plans and building models that the manager can use in making choices, the planner has a third role to play in strategy-making. He may perform a particular kind of analysis for the manager faced with a crisis.

In part, crises reflect the unanticipated consequences of entrepreneurship, and it is difficult to imagine the growing organization that can eliminate the occurrence of crises. Rather than condemning "management by crisis" as the management analyst is prone to do, it would appear that he might better spend his time developing methods by which the manager faced with a crisis would be able to call upon his services.
The analyst of today is not prepared to work in the crisis environment. His methods tend to have large startup costs, and tend to consume much time. The analyst has been trained in the economists' tradition of "rational" choice. He prefers exhaustive search for alternatives, quantification of costs and benefits, and careful evaluation. Furthermore, he is strongly oriented toward using elegant methods, often those with a strong emphasis on mathematical technique. These approaches are extremely time consuming, often so much so that the analyst must be excluded from participating in crisis-handling. The analyst must develop an ability to perform "analysis in real-time" if he is to aid the manager in handling crises.

The analyst's role will always remain an auxiliary one in crisis-handling. Nowhere is the authority of the manager more relevant than in the event of a crisis. Important organizational values are usually involved, complex dynamics are encountered, and commitment to a course of action must be firm. Because of these factors, and because crises are generally exceptions, crisis-handling can never be fully reprogrammed, but must remain the work of the manager.

Nevertheless, there appears to be a useful role for the informed planner. At the most basic level, he can invest the time to predict the occurrence of crises. He can design entrepreneurial programs to avoid them, or he can design contingency plans to handle them should they occur. In effect, the planner attempts to forecast contingent events (e.g., a strike, a tariff change, the loss of an important
executive), and then he develops a specific model or plan to hedge against the crisis or to aid the manager in his handling of it, should it occur.

Other crises, probably the great majority, will occur without warning. As has been observed, the manager will assume immediate command, open information channels, and quickly work out a solution to release the pressures. In these cases, the manager would be able to make use of an informed planner. The planner, with a thorough understanding of the manager's environment and the ability to act quickly, would be able to apply his analytical approach to aid the manager. He would be prepared to forecast with simple mathematics, to conduct market research without concern for statistical validation, to perform cost/benefit calculations using only a few alternatives and with rough estimates. This "quick and dirty" analysis might not be elegant, but it would greatly improve the manager's ability to handle crises.

Thus, strategy-making must combine the effort of manager and analyst. An evolutionary approach, with the manager chasing opportunity when he is not being chased by crises, with entrepreneurial programs being considered independently and intermittently, and with plans and models existing only in the manager's mind, is inadequate. Nevertheless, it is unrealistic to envision fully reprogrammed strategy-making. The dynamics of the system are extremely complex, and the manager is the only known means of determining organizational values. One can, however, envision managers and planners working together, with
managers collecting certain kinds of information, establishing values, making choices, handling crises, and bargaining, and with planners collecting documented information, conducting programmed entrepreneurial activity, designing "decision-tree" plans, building models to aid in choice-making, planning for contingent events, and applying "real-time" analysis in the event of a crisis.

The potential role of analysis -- the programmed approach to managerial work -- may be summarized as follows: Certain managerial jobs are relatively routine, but require the manager's participation because of his position of status and authority. Analysis can be of no help to him in these cases.

On the least sophisticated level, a team of informed analysts can play a useful role by reprogramming the scheduling activity of the manager. The manager provides some of the scheduling rules; analysis of his work habits provides the others. Once these rules are made explicit, they can be applied to requests for the manager's time, and can be used in the development of a more productive workday.

The analyst can play an important role in reprogramming the information reporting system. By studying the manager's methods of retrieving a special kind of information -- the ad hoc, external, and unsubstantiated information -- the analyst can program a more effective system. Furthermore, he can document and filter much of the information for the manager,
By combining this information with that which the manager can document to keep the analyst informed, there emerges for the first time an explicit data bank of important organizational information. This data bank can serve as the basis for a reprogrammed and much improved information disseminating system, with standard rules for sending information to various organizational members.

Strategy-making is the most complex of all the manager's work, and will be the last to be reprogrammed. It would appear that the early work will derive from the capital budgeting procedures in use today. All major programs, not just those associated with the allocation of monetary resources, will be subjected to the planning process. Entrepreneurial activity will be partially programmed, as will the design phase of entrepreneurial programs dealing with well-defined and stable information. More complex entrepreneurial programs, where the dynamics are of greater concern and the information is less certain, will be designed in the form of decision-trees. The manager will maintain the option of branching and of timing the decision.

The manager will continue to make all choices, since the value system will remain non-explicit, but it is to be hoped that eventually the planner will be able to develop a series of models to aid the manager in making choices. Then, when the manager must make a choice within the context of an entrepreneurial program, process a request for authorization, bargain with an associate, or handle a crisis, he will be able to evaluate alternatives in a man/machine system.
Finally, the informed analyst, providing he is willing to forego elegance in the application of his techniques, can carry out analysis for the manager in the event of a crisis.

Today, managing is an art, not a profession grounded in scientific discipline. This is so despite the fact that all managers perform the same basic authority roles, information processing roles, and strategy-making roles. To perform these roles, managers deal with non-documented information that is difficult to transmit and they use intuitive methods that are difficult to understand. For these reasons, managers receive little help from management analysts. As a result, information processing and strategy-making is centralized in the hands of one man in each organization — its manager.

There is every indication that the management analyst can begin to perform effectively at the senior management level, just as he did at the production level fifty years ago. The means that will allow him to do this are clear — description of the programs managers use today, and documentation of the information managers now carry in their heads. These jobs must be undertaken. Modern organizations are expanding very rapidly, both in size and in complexity, due largely to developments in the physical sciences. Developments in the social sciences, particularly in management science, must keep pace. Particularly in the public sector, the decisions of modern organizations are becoming too momentous for them to allow the traditional methods of managing to suffice.
CHAPTER VIII

A STUDY OF MANAGERIAL WORK IN REVIEW

Now this is not the end.
It is not even the beginning
of the end. But it is,
perhaps, the end of the
beginning.

Winston Churchill

Before presenting some general conclusions based on the research,
the previous seven chapters will be reviewed in some detail.

8.1 A Summary of the Research

Introduction

In the opening pages, a number of questions concerning the nature
of managerial work were posed in order to guide the research:

What kinds of tasks, such as exception handling, problem
finding, authorizing, and reviewing, does the manager
perform?
To what extent can his work be called programmed?

---

1 Speech at the Lord Mayor's Day Luncheon, London, November 10, 1942.
To what extent is his work ceremonial? How does he find problems and opportunities? To what extent does he react to external stimuli? How does he act as a medium of communication between various organizational groups, and between his organization and outside influences? What kinds of data does he receive and in what forms? What can be concluded about his role in the development of organizational values and organizational strategy?

Literature:

In Chapter II, which contains a detailed review of the literature written on the manager, it was demonstrated that despite a very large body of writings, these rather elementary questions could not be answered. The reader can learn from one set of writers that managers must do such ill-defined things as "plan", "coordinate", and "organize". He can read biographical material about particular managers; he can analyze data on the backgrounds of men who manage; and he can even learn where managers tend to spend their time and with whom. If power, personality, or decision-making is of interest to the reader, he can find excellent theory that focuses on any one of these dimensions of the manager's job. But if the reader simply wants to find out what managers do, that is, what set of activities they perform, there is little he can read. There have been some interesting empirical studies of managerial time allocation, but these have been more successful in describing media and contacts than in describing the actual content and purpose of activities. If the reader seeks an interrelated description of managerial roles and of managerial programs, he will find little theory derived from empirical investigation.
If this reader happens to be a management analyst trying to gain an understanding of the manager so that he can design better systems for him, the situation becomes more critical. For there is more in the literature to mislead than to direct. Systems cannot be meaningful if they are designed for managers who simply "plan", "coordinate", and "organize", or for managers who work in one dimension.

Methodology 2

A number of factors became quite clear. Since there was so little understanding of what managers do, the research would have to be inductive in a fundamental sense. From carefully collected data on the actual activities of managers, theory would have to be developed. The research would have to be designed so that these activities could be carefully analyzed. The primary objective of the research was to determine managerial roles and managerial programs, not to derive quantitative justifications for perceived differences in managerial style or in time allocation. It was, therefore, decided to study five men, each for a period of one week. Each man was to be the chief executive of a reasonably large, well-known organization.

It further became clear that a different kind of methodology was required. The diaries, questionnaires, and interviews of previous studies were too constraining. By relying to a great extent on

---

2 Figure 2 on page 82 depicts the method used in collecting and reducing the data.
structure and on the capacity of the manager to develop the theory about
his own work, they failed to serve the purposes of inductive research
and failed to handle the flow and the complexity of the data that
were being sought.

"Structured observation" appeared to be the appropriate methodology,
as it offered a balance of structure and flexibility. The manager
would be observed by the researcher who could be comprehensive and
consistent in collecting the data, and who could seek well-defined
types of data (e.g., purpose of activity, participants, form of
initiation, origin of mail) as well as anecdotal materials. However,
although the types of data to be sought were determined before observa-
tion began, the categories within each type were developed during
observation. For example, each activity and piece of mail was to be
described as to its purpose, but there was no listing of categories of
purpose before the observation began. These categories would be
developed inductively; as an activity was observed or as a piece of
mail was read, its purpose would be noted. Later, these notations
would be studied, a comprehensive set of purposes would be developed,
and recoding would take place.

The structured data were collected in three "records": (1) The
chronology record contained the tabulation of the manager's activities
throughout the day in such a way that the data of the other two records
could be interrelated. This record also helped in the development of
an understanding of working patterns throughout the day.\(^3\) (2) The mail record detailed specific data on each piece of mail -- its format, its sender, its purpose, the attention it received, and the action it elicited.\(^4\) (3) Similarly, the contact record detailed specific information on verbal contacts -- the medium (telephone call, scheduled or unscheduled meeting, tour), the purpose, the participants, the form of initiation, and the location.\(^5\) The analysis for the five week period covered 659 pieces of input mail, 231 pieces of output mail, and 368 verbal contacts.

The data were analyzed in two basic ways. The primary objective was to analyze the categories, particularly those related to purpose, together with the anecdotal materials, and to develop theory on the manager's roles in his organization. In addition, there was much to be learned from the quantitative data that were collected during the research. Thus, a great amount of time was spent to display the numbers, and to analyze them, particularly those that did not meet with preconceptions. This led to two sets of conclusions -- a delineation of certain outstanding characteristics of managerial work, and some comments on the nature of the differences among the five men studied.

\(^3\)For tabulation of these data, see Figures 3-5, pp. 101-103.

\(^4\)For tabulation of these data, see Figures 6-10, pp. 107-113.

\(^5\)For tabulation of these data, see Figures 12-17, pp. 125-132.
Managerial Work Characteristics:

The data collected during the five weeks of observation suggested six outstanding characteristics of managerial work: 1. **Great Quantity of Work and Unrelenting Pace:** Ostensibly, managers do not work long hours. Closer analysis reveals, however, that in truth their work is very taxing. During regular hours, the amount of work accomplished is very great. The five men processed an average of thirty-six pieces of mail each day, participated in eight meetings half of which were scheduled, had five telephone calls, and took one tour. Free time is really very rare -- if by chance the manager has caught up with the mail, satisfied the callers, and avoided scheduled meetings, a subordinate will likely show up to usurp the available time. The manager cannot expect to have much time for leisurely reflection during office hours. Furthermore, coffee "breaks" are taken during work activity, lunches are almost always work-related, much travel takes place after hours, evening meetings are common, and work-related reading in the evening is even more common. Even when the man does not appear to be engaged in managerial work, his mind often is. Because managers train themselves to seek information and to consider their decisions, and because others recognize the power of their positions, they are seldom able to free themselves from their work.

2. **Variety, Discontinuity, and Brevity of Activity:** There is no pattern to managerial activity. Rather, variety and discontinuity are the keynotes as successive activities generally deal with issues that differ greatly both in type and in content. The daily averages for
this study of thirty-six written and fifteen verbal contacts often involved nearly fifty-one very distinct issues. Furthermore, managerial work is characterized by its brevity. Half of all activities studied lasted less than nine minutes, and only ten percent exceeded one hour's duration.

The manager clearly demonstrates a preference for interruption and for tasks of short duration. Perhaps this is so because the manager becomes accustomed to variety, and perhaps the flow of "instant communication" cannot be delayed. More significant, perhaps the manager is conditioned by his workload — he is always plagued by a set of obligations and by a recognition of the opportunity cost of his own time to the organization. The manager is forced to become superficial.

The characteristics of variety, discontinuity, and brevity raise the question of the manager's capacity to understand and think through complex decisions. To alleviate the problem, managers adopt a number of strategies. They rely on subordinates for advice, choosing not the proposal but the man who recommends it; they attempt to break single decisions into sets of serialized decisions that can be made over periods of time; they seek to attain a high level of general knowledge to enable themselves to react quickly when necessary.

3. Preference for the Current, the Specific, the Ad Hoc: There is strong indication that the manager gravitates toward the issues that are current, specific, and ad hoc. Ad hoc operating reports receive
more attention than do routine ones; written requests frequently elicit reactions while general periodicals seldom do; "instant communication" receives top priority; very few contacts are held on a routine or "clocked" basis; almost all contacts concern well-defined issues. The managerial environment is one of stimulus-response. It breeds not reflective planners but adaptable information manipulators who prefer the live, concrete situation, men who demonstrate a marked action-orientation.

4. Between the Organization and a Network of Contacts: Surrounding the manager is a diverse and complex web of contacts which serves as his external information system. Included in this web are clients, associates and suppliers, peers, trade organizations, government officials, co-directors, independents (those with no relevant organizational affiliation), and directors. Among these, directors do not stand out as a particularly active group. For the most part, the relevant information system is ad hoc in nature and is designed by the manager himself. The manager receives more information than he emits, much of it coming from his contacts, and more from subordinates who act as filters. Information can flow through the manager in three ways — from subordinate to subordinate, from environment to subordinate, from subordinate to environment. All three channels are active, but the most active one appears to be the second — from the environment into the organization.
5. **Preference for Verbal Media:** The manager has five media at his command: (a) Mail: By all indications, he dislikes the documented form of communication, for example he gives very little attention to such items as operating reports and periodicals. It was estimated that only thirteen percent of the input mail in this study was of specific and immediate use to the manager. Much of the rest dealt with formalities and with general and reference data.

Managers initiate very little mail; in this study they initiated one piece for every twenty-six received. It appears that most of the mail sent out (in this study output was one-third input) is a reaction to a piece of mail received — a reply to a request, an acknowledgement, or information forwarded to another part of the organization. Managers appear to dislike writing letters, perhaps because the mail is a relatively slow and tedious medium.

(b, c) **Telephone Calls and Unscheduled Meetings:** The less formal means of verbal communication — the telephone, a purely verbal form, and the unscheduled meeting, a face-to-face form — are used frequently (two-thirds of the contacts in the study) but for brief encounters (average duration of six and twelve minutes respectively). They are used primarily to deliver requests and to transmit pressing information by those outsiders and subordinates who have an informal relationship with the manager.
(d) Scheduled Meetings: These were of long duration, averaging sixty-eight minutes in this study, and taking over half the managers' time. Such meetings provide the manager with his main opportunity to interact with large groups and to leave the confines of his own office. Scheduled meetings are used when the participants are unfamiliar to the manager (e.g., status request from a student), when a large quantity of information is to be transmitted (e.g., presentation of a report), when ceremony is to take place, and when complex strategy-making or negotiation must be undertaken. An important characteristic of the scheduled meeting is the incidental, but by no means irrelevant, information — gossip, opinions on events, etc. — that flows at the start and end of such meetings.

(e) Tours: Although the tour is a powerful tool for gaining information in an informal way, in this study tours accounted for only three percent of the managers' time.

6. **Self-Control Despite Obligations:** Does the manager control his own affairs? A cursory examination of the data indicates that he does not. In this study, the managers were responsible for the initiation of only thirty-two percent of their verbal contacts, and a smaller proportion of their mail. Activities were also classified as to the nature of the manager's participation, and the active ones were outnumbered by the passive ones (e.g., making requests vs. receiving requests). On the surface, the manager is a puppet, answering requests in the mail, returning telephone calls, attending externally initiated meetings, yielding to subordinates' requests for time, reacting to crises.
However, such a view is misleading. There is evidence that the manager can exert control over his own affairs in two significant ways: (a) It is the manager who defines his own long-term commitments by developing appropriate information channels which later feed him information, by initiating programs which later demand his time, by joining boards of directors which provide contacts in return for his services, and so on. (b) The manager can exploit situations that appear to be obligations. He can lobby at ceremonial speeches; he can impose his values on the organization when his approval is requested; he can motivate his subordinates whenever he interacts with them; he can use the problem-solving situation as an opportunity to innovate. Thus, the manager may appear as puppet or conductor, depending on how he is viewed and how he exploits his opportunities.

Manager Differences:

Although there were marked similarities on almost every dimension among the five managers studied, the differences that did exist were analyzed, and it was possible to draw a number of speculative conclusions. For example, it was found that an atmosphere of informality pervaded the organization that was in the most competitive environment. Most likely, informality reflects the need for flexibility. As contrasted with the three profit-making organizations, the hospital and school system appeared to use more formalized procedures; the chief executives had more frequent interaction with directors and clients; and they received more status requests. These facts suggest that the public is more concerned with these organizations; that formal procedures are used
to justify actions to the public; that directors play a more important role in representing public interests; that the chief executive must make himself available to a demanding public.

Although this study was not designed for purposes of comparative research, there was clear indication (1) that differences among managers in their work activities can be easily explained in terms of environmental, organizational, and personality factors, (2) that much is to be learned about organizations and their environments by studying their managers, and (3) that "structured observation" can be a powerful tool for comparative research.

Managerial Roles:

The primary objective of the research was to develop theory from a comprehensive study of the work activities of managers. In part, this theory took the form of a redefinition of the manager's set of basic roles. It was felt that a set of roles could be comprehensive and meaningful if and only if it would explain why the manager engaged in each activity. Thus, the theory presented below is based on the analysis of the reasons for the manager's involvement in each activity.

Basically, the manager may be viewed as performing three sets of roles in the organization -- status roles, information processing roles, and strategy-making roles.6

6 For a diagrammatic view of these roles, see Figure 19, pp. 213.
**Status Roles**: Above all else, the manager is in the position of formal authority in his organization. As such, he is required to perform a number of duties — to staff his organization, to relate it to its environment, and to handle the issues which gravitate to the top. As well, there are a number of figurehead duties, such as signing documents and processing status requests, presiding at ceremonial events, and being present at other events.

In addition to these duties, the status associated with authority enables the manager to perform two other important roles. The organization looks to its manager for guidance, and he, therefore, plays the role of activator, by encouraging subordinates, by developing the atmosphere of the organization, and by attempting to maintain organizational agility as he plays the part of "meddler". In addition, his status enables the manager to play the role of contact man for the organization, interacting with a variety of outsiders, many of whom have privileged information. The manager joins external boards of directors and seeks exposure through public service to develop this system of contacts. To maintain the system, he must acknowledge favors and reply to status requests.

**Information Processing Roles**: Formal authority enables the manager to play the dominant role in the organization’s information system. As the only generalist in an organization of specialists, the manager becomes the nerve center of organizational information. He may not know as much about a particular specialty as one of his
subordinates, but because his channels connect him to every subordinate, he knows more about the organization in general than any other subordinate. Furthermore, because, as contact man, he interacts with a variety of people including peers who are themselves nerve centers of their own organizations, the manager becomes the nerve center of external information.

It should be noted that much of the above information (on internal operations, external events, analyses, trends and pressures) is not documented and is often only speculative. The manager appears to find it most important to get his information quickly and informally. As a result, he will not hesitate to bypass formal information channels to get it, and he is prepared to deal with a large amount of gossip, hearsay, and opinion.

Because he is well informed, the manager must perform a number of roles that require the use of his information. As disseminator, he carries information into the organization. As contact man, he receives reports, ideas, and information on events, which he forwards to subordinates, including a second-in-command (a deputy) who serves, in part, as a backup nerve center. To some extent as well, the manager acts as an informational link between different organizational groups, disseminating information from one to another.

In addition, the manager serves to disseminate information outside the organization, in his spokesman role. He informs the organization's directors, the public, and the special interest groups
that surround the organization about its plans, its policies, and its performance. He lobbies for the organization, and he represents it in negotiations with other organizations.

In addition, the manager's status and knowledge of his trade automatically define him as an expert in the eyes of his peers. They seek information and advice from him, sometimes on an ad hoc basis as when a newspaperman seeks background on a story, and sometimes on a regular basis, as when a corporation asks him to join a board of directors.

A certain amount of the manager's information comes as pressures and statements of preference from the various power groups affiliated with the organization. In some as yet undefined way, the manager plays the role of value determiner internalizing these pressures and combining them with his own to determine the preferences of his organization. It should be noted that his statements of organizational preference can hardly be construed as identifying a formal preference function. Furthermore, there is reason to believe that the manager, with a clear mandate to rule and often the subject of vague and conflicting pressures, is able to let his own preferences dominate.

**Strategy-making Roles:** The manager plays the central role in the making of organizational strategy, the set of precedent decisions that guide the organization. He does so because, as formal authority, he has the power to commit the organization to courses of action; because as nerve center, he has the information necessary to make diverse
decisions; because, as value determiner, he can insure that decisions reflect organizational preferences; and because decisions can only be interrelated if one man is charged with overseeing all of them.

Central to the making of strategic decisions is the role of resource allocator, which the manager plays in a variety of ways. On the most basic level, the manager allocates his own time and thereby determines the interests of his organization. On a different level, the manager oversees the developmental activity in his organization. Development takes place primarily in the form of "entrepreneurial programs" for example, programs to reorganize, to expand, to introduce new product lines.

The manager may assume three levels of involvement in a program. He may delegate all responsibility for a particular program, implicitly or explicitly allocating resources by determining which specialist is to take charge of the program and by maintaining the authority to replace that specialist. The decision to delegate is a difficult one for the manager, for it is a decision to alleviate his own time pressures at the expense of having someone less informed make decisions.

The more important entrepreneurial programs are approved by the manager. Although he may not be involved in the design of these programs, the manager is able to accept or reject them either at the outset or before they are finally implemented. His approval is sought in two ways. When a program is highly structured and is competing for clearly defined resources, the manager may be asked to approve it
during a routine budgeting session. However, it appears that most programs do not meet these conditions, and, as a result, he is asked to approve them in the context of ad hoc requests for authorization. These are difficult decisions. The manager cannot spend much time on these requests, yet he must attempt to interrelate these decisions with the various others that have been taken and that will be taken. Furthermore, the manager must recognize that by delaying the decision, he may be inhibiting his subordinates and losing opportunities, whereas by acting quickly, he may be denying himself information and the opportunity to consider the decision more carefully.

Finally, the manager may personally supervise the most important of the entrepreneurial programs. These programs are at various stages of development, of various ages, and in various states of activity. With regard to these programs, the manager is somewhat like a juggler. He interacts intermittently with a great number of programs, keeping most in the air and giving each a short burst of energy from time to time. Many programs sit in inventory, as the manager waits for information, waits for the occurrence of an event, or waits for free time to devote to it. To alleviate his time pressures, the manager splits major decisions associated with entrepreneurial programs into sets of smaller decisions, which can be spaced over periods of time. While much of the work on these programs is carried on by subordinates, the manager maintains strong control over the making of choices. To do so, he makes extensive use of (1) the models of his organization and
its environment, which he develops in his head, (2) his understanding of organizational preferences, and (3) the plans that he develops. These are not plans in the traditional sense. Rather, they appear to be a set of entrepreneurial programs that the manager wishes to initiate eventually. These plans exist in the mind of the manager, and they appear to be quite loose and flexible.

As crisis handler, the manager takes charge in the event that severe pressures are exerted on or within the organization. Crises are of three types: (1) conflicts between subordinates, (2) conflicts between the organization and another organization, and (3) severe and suddenly imposed resource constraints. In effect, the manager again assumes the role of generalist. A situation arises for which no one operating program of the organization is suited. As generalist, the manager must find or design a program to handle the "exception". In general, crises do not arise gradually or from routine information. They are defined for the manager in some dramatic way, and he must quickly seek means of easing the pressures. Among other things, he must reschedule his time so that he can concentrate on finding a solution. It should be noted that many crises probably occur, not because of any inherent weaknesses in management, but simply because innovative activity necessarily leads to unanticipated consequences.

The manager also allocates resources in his role as bargainer. As formal authority, as spokesman, and as resource allocator, the manager is called upon to negotiate with other organizations, to trade organizational resources for goods and services.
Finally, the manager makes strategy in his role as entrepreneur. He scans the environment of his organization looking for opportunities, and he monitors operations looking for problems. Given that he finds a situation that merits the initiation of a change in the organization, the manager defines an entrepreneurial program. Again, it is the ad hoc inputs, not the routine reports, that appear to provide the appropriate information.

Although this set of thirteen managerial roles was developed with reference to the study of chief executives, it is argued that such a set has equal meaning for all managers. In essence, the manager has formal control over his organization. He is the generalist in an organization of specialists. He has a broad mandate to direct the affairs of his organization. Therefore, he assumes the central position in the processing of information and in the making of strategy; and, he is the organization's basic link to its environment. If the term "organization" is used broadly to refer to units and subunits within units (e.g., machine shop within manufacturing company), then it can be argued without difficulty that the manager of any organization (e.g., the foreman of a machine shop) plays each of the thirteen roles.

The analysis of the manager's strategy-making roles provides a number of insights into the strategy-making process in organizations. In addition to what is discussed above, it should be noted that strategy-making is an evolutionary process. Strategy is the result of a great number of decisions associated with the scheduling of time,
the development and approval of entrepreneurial programs, and the handling of crises. The process is complex and dynamic, and cannot be separated from the manager's daily activities.

This research indicates that there exist a number of weaknesses in the published views of organizational strategy-making. The economists' view does not deal adequately with the complexity and the dynamics of the process. However, the views of writers such as Lindblom and Cyert and March overemphasize the passive elements of strategy-making. There is clear evidence that organizations do not seek to avoid conflict and major change, but that entrepreneurship is an important feature of the strategy-making process. Furthermore, choice-making appears to be characterized, not by bargaining, but by a high degree of managerial autonomy.

Managerial Programs:

It appears that there is virtually no science, that is, no analytically determined skills, in the work of managing. In fact, there is no reason to believe that the managers of previous generations used different methods, although they certainly applied them to different issues.

The management analyst (e.g., long-range planner, designer of information system) will effectively aid the general manager only when he fully understands the managerial process. If it can be assumed that managerial work consists of a set of determinable
procedures or "programs", and recent research by Clarkson has given us reason to accept such an assumption, then the course of action to be taken by the management scientist is clear. He must first describe the manager's programs and their interrelationships, and then he can begin to "reprogram" managerial work. This is the process used by Frederick W. Taylor at the turn of the century -- observe the worker and describe the elements of his work, analyze the steps and then redesign the work.

Such an undertaking is exceedingly complex, and will require better methods and more data than were available in this research. Nevertheless, enough data were collected to develop a preliminary view of the set of programs managers appear to use, and to discuss the reprogramming activity that might be attempted.

Managerial work may be thought of as consisting of nine programs. These programs are not, by any stretch of the imagination, explicitly or even consciously operated. Nevertheless, work activities do appear to fit into the pattern described by the following programs: 7

(1) The manager is bombarded with random stimuli of various sorts. Many are in the form of explicit requests for his time, others are imposed on the manager by himself. In the scheduling program, the manager accepts or rejects stimuli and sets priorities among them.

7 For a diagrammatic view of the interrelationships of these programs, see Figure 21, p. 301.
(2) To handle specific request made of him, the manager uses a number of programs to process requests. With regard to requests to attend, the manager considers whether or not he must attend and what he stands to gain from attendance. Requests for information require the manager to decide whether or not to give the information and to decide exactly what information to give. The manager receives three kinds of requests to allocate resources — to authorize a decision, to bargain with another organization, and to take charge of the budgeting process. First, the manager must decide whether or not to become involved in the making of a particular decision, and then he must make certain of these resource allocation decisions. To do so, he uses the choice program (described later). Finally, the manager receives requests in the form of strong pressures from power groups to initiate change in the organization. If these pressures have reached the crisis stage, he must call (3) the crisis-handling program.

(4) In addition to the requests, there are a number of stimuli which are purely informational. They come to the manager because of his authority and because he has designed the information system to bring them to him. In the information filtering and switching program the manager decides what to do with these stimuli. Information may be forgotten, disseminated, stored, or used in entrepreneurial programs.

(5) Information to be stored goes to the revise storage program, where it may be used to change the manager's models of his organization or its environment, to change his image of organizational values, or to wait, in the form of reference data or plans, until it is needed.
(6) Information entering the information disseminating program is analyzed in terms of the manager's models of his subordinates. Thus, he decides who needs the information. Then, the manager must choose a channel and transmit the information.

(7) In the program to define entrepreneurial programs, the manager studies the information he receives on opportunities, problems, and pressures. This is analyzed according to his own interests, according to the gains or losses from acting or not acting, according to timing factors, and according to the manager's various models of organizational norms. The manager must decide whether to define an entrepreneurial program, whether to delay definition, or whether to ignore the stimulus.

(8) Given the decision to define an entrepreneurial program and to be personally involved, the manager calls upon his program to execute entrepreneurial programs. This program involves (a) opening information channels to collect advice and analysis from his specialists, (b) developing over a period of time a set of sequential decisions separated by feedback and timing delays, and (c) eliminating the program from his inventory when the manager decides that it has reached maturity.

(9) All strategic choices that the manager must make, that is, those associated with requests for authorization, budgeting, bargaining, crisis-handling, and entrepreneurial program execution, require the manager to draw upon the choice program. With it, the manager checks
resource constraints, precedent decisions, organizational values, and timing factors. This program also uses the manager's plans and models to evaluate alternatives.

With an understanding of the manager's programs, the management analyst can begin to talk sensibly about "reprograming" them. Re-programming, that is, using analysis to redesign the steps in the program and to delegate some of the work to analysts who use special equipment, is necessary because the manager is severely time constrained, because he is unable to probe deeply into issues, and because he seldom is willing to investigate fully, analytical issues and detailed documented materials.

Some work cannot be reprogrammed -- it requires human qualities. Status contacts must be developed by the manager, and it is he who must participate in ceremony.

However, other work can be partially or wholly reprogrammed, given one important prerequisite, that the designer and operator of the new program have full access to the manager's information. The lack of this access has been management science's greatest inhibiting factor. Analysts have the skills and the time, but managers have the information, and much of it is not documented. Perhaps the only way to change this situation -- to break the manager's monopoly on important organizational information -- is to have him brief the analyst periodically on his activities.
By satisfying this requirement, the analyst will be able to undertake reprogramming in four areas:

(1) The scheduling program is an obvious place to begin. It is the simplest and most easily defined of managerial programs, and, given the enormous opportunity cost of the senior manager's time, great gains can be made here. The analyst would determine the manager's time constraints, find a way to categorize the demands for his time, and build a set of scheduling rules to handle these demands. Such a system would provide for (a) more efficient and consistent time allocation, (b) better patterning of activity in line with the manager's needs for variety, continuity, rest, and unscheduled time, (c) the routinizing of important activity of a less pressing nature (e.g., touring) that tends to be neglected, and (d) the analyzing of the manager's schedule to test different allocations of his time.

(2) Despite great efforts by information systems analysts, the manager continues to design his own information system. While analysts document routine, internal, quantitative information, the manager seeks ad hoc, uncertain information, much of it dealing with the external environment. By carefully studying how particular managers get their information and how they use it, the analyst can begin to reprogram the information system. That is, he can begin to seek and filter the kinds of information managers need.
With the manager systematically briefing the analysts on the information to which he has access, and the analysts systematically briefing the manager on the information they take the time to retrieve, there can be developed a documented data bank of the kinds of information that are important to the organization. Such a data bank, generally unavailable at the present time, is a vital prerequisite to a science of managing.

(3) For one thing, it provides the basis for a more systematic information disseminating system. The analyst, with access to the data bank, and with an understanding of the dynamic information needs of organizational members, can effectively disseminate information to the organization's members.

(It is noted at this point that the computer, which appears to have had no influence on the senior manager's work, cannot be expected to play a central role in a reprogrammed information system. This conclusion is reached after considering the number of people involved in such a system, the kinds of information, the nature of the processing, and the costs of coding. Perhaps the sophisticated information system of the future will consist of interlocked teletype terminals, which will carry "instant communication" between executive offices. Any sophisticated information disseminating system will likely have a decentralizing effect on the organization, since the manager is discouraged to delegate decisions today primarily because he cannot effectively disseminate his information.)
(4) The most challenging and most complex job facing the management analyst is the reprogramming of strategy-making. However, there is little doubt that the greatest gains can and will be made here. The analyst is faced with the question of how to reprogram this activity, for he meets two conflicting themes in the literature. He is told by one set of writers that analysts are destined to develop "grand plans" of organizational strategy, using what amounts to the economist's "rational" decision-making procedure. In a kind of Darwinian criticism of this approach, another group of writers tells the analyst that planning must fail -- it does not recognize the complexity and dynamics of the environment in which strategy is made. Strategy must evolve in reaction to pressures and events. It cannot be planned.

Despite the appeal of this latter argument, there is a clear place for the analyst in the strategy-making system. The manager is time-constrained, his procedures do not improve as organizations grow and become more complex, and, in particular, he cannot effectively perform the important job of integrating decisions. Thus, there is a planning dilemma. Managers have the information and it is they who can adapt to dynamic conditions, but it is the planners who have the time and the analytical techniques. Reprogrammed strategy-making must couple the skills of both the manager and the planner. The system must rely on planning, but it must build plans that are adaptable. Furthermore, it must use the skills of the analyst even when planning is not possible.
As envisioned, the system would be built around a set of flexible strategic plans in the form of planned entrepreneurial programs. These would be initiated, in part, by reprogrammed entrepreneurial activity = formal studies of environmental change, of organizational strengths and weaknesses, and of new opportunities. By considering all new entrepreneurial programs together, the planner would be able to integrate them, and to account meaningfully for resource constraints. A number of programs would be related to uncertain events, and these would be planned in decision-tree form. That is, the planner would recognize the manager's need for options and his need to time the decisions.

The making of strategic choices would remain the prerogative of the manager, since it is unlikely that the value system of the organization can be made explicit. However, the analyst might be able to build a variety of models to aid the manager in the making of choices. Some, such as PERT-type models, would describe the workings and plans of the organization. Others, such as input/output grids, would describe the environment, and still others would be designed for particular decision situations (e.g., a bargaining session). Given a useful set of models, the manager could operate in an efficient man/machine system.

Finally, the analyst can provide useful services during the crisis situation. First, he can anticipate crises, and then design entrepreneurial programs to avoid them or develop contingency plans
to handle them, should they occur. For those crises that have not been anticipated, the analyst, who is prepared to forego elegance in his work, will be able to conduct "quick and dirty" analysis to aid the manager.

8.2 The Future of Managerial Work

It is now possible to draw a number of general conclusions about the "profession" of management, both as it exists today and as it might develop in the future. These conclusions are directed to the manager, to the school of management to the management analyst, and to the management researcher.

**Implications for the Manager:**

Today, management is an art, not a science. Most of the programs managers use are not documented and are not taught or analyzed in any formal sense. This has a number of implications. It means that there is little likelihood that today's managers will be displaced by technological obsolescence in the foreseeable future. Managing requires first and foremost a set of innate abilities. Until now, management science has done very little to require that these abilities be supplemented with technological knowledge about the process of managing.

The lack of a scientific base of managing has imposed severe pressures on the manager. Basically, he must design his own information system, and he must take full and realistic charge of the strategy-making
process. Furthermore, since the manager has unique access to information without any scientific means of disseminating it, it is difficult for him to delegate his power to make decisions. Thus, he is usually forced to carry a very great burden of responsibility in the organization. As organizations become increasingly large and complex, this burden increases. Unfortunately, the man cannot significantly increase his available time or managerial powers. Hence, in the large, complex organization, the top manager’s time assumes an enormous opportunity cost, and he faces the real danger of becoming a major obstruction in the flow of decisions and information.

The solution to this problem must come from the management scientist. However, the manager can make a number of attempts to alleviate the situation in the short run. He can learn more about his own role in his organization, and he can use this information to schedule his time in a more meaningful manner. He can recognize that only he has much of the information that the organization needs. Then, he can seek to find better means of disseminating his information into the organization. Finally, he can attempt to develop a closer and more meaningful relationship with the team of management analysts, so that the skills of the analyst can be used to reduce his workload.

**Implications for the School of Management:**

It is well to begin by asking if management can really be called a profession. Based on an analysis of managerial activity, one is
inclined to view management as a profession. This research indicates that all managers perform the same activities, play the same roles, and operate the same programs. Only the lack of a specific data base, not the existence of different roles in different jobs, inhibits managerial mobility. However, to some a profession must be grounded in documented and researched skills, and use related equipment. They can point to the medical doctor who works with research findings and a host of specialized apparatus, and to the engineer who works with equations and a slide rule. Few managerial skills are documented and even so obvious a tool as the computer appears to have had virtually no effect on the methods used by managers (although it has changed the mix of information they receive).

If management is not a profession in this second sense, then what role can the schools of management play? To date they have attempted to train managers in two ways. First, they concentrated on the case study, a means of simulating actual managerial experience in the classroom. I believe that this approach became popular because the schools tacitly recognized that they were not able to teach specific skills. They could only hope to accelerate the learning that might otherwise take place on the job. The student was required to do his own learning by making managerial decisions; he could not learn by developing an understanding of his own process in the classroom or by learning about the processes used by practicing managers.
More recently, certain schools of management have rejected the case study philosophy, perhaps for the reasons discussed above. These schools have attempted to teach theory as it bears on management. It is interesting to note that much of this theory derives, not from the field of management per se, but from the underlying disciplines = economics, psychology and sociology, and mathematics. These schools also teach applied theory, but again, much of this theory does not relate directly to the process of managing. It is theory related to the specialist functions of the organization = market research, operations research, investment analysis, labor relations, and so on. The one course that might deal with the management process = the course in Business Policy = has either been conspicuously absent from the curriculum of the modern management school, or it has been taught by the traditional case study method. 9

Does the student in the management school learn how to develop status contacts; how to activate an organization; how to collect and integrate large amounts of factual and value data and to know which of these data to send into the organization and out to the environment; how to allocate resources in an effective manner; to handle the crises that inevitably arise, to bargain with other organizations; and; how

---

8. This situation is beginning to change. Theoretical courses in Policy are now being developed at the management schools of Carnegie-Mellon University, Yale University, the University of Toronto, and McGill University.
to function as an entrepreneur? I do not believe that schools of
management design their curricula to develop these skills. Incidental
to the formal learning process, the student might develop-status
contacts at school which serve him in later years, and he might also
learn how to collect and integrate large amounts of data and how to
handle crises simply because of the nature of his workload at school.
But since most managerial skills are not taught, the M.B.A. degree is
hardly a necessary prerequisite for managing.9

To some extent, the schools of management can change only as
rapidly as research on the management process allows them to change.
For we can only teach what we know of the process of managing. Never-
theless, today it is possible for the student to learn more about
managing -- about the complexity and ambiguity of the management
process, about the true nature of information processing and decision-
making, and about the actual work activities of managers. The student
must not only learn the structured skills of the management scientist,
but he must be exposed in a meaningful way to the intuitive processes
used by the manager.

9 Interestingly, of the five men studied, only one has had formal
managerial training. One was trained in the military, another
received medical training, a third holds an engineering degree, and
the fourth received his doctorate in the field of education. Thus,
each was trained as a professional specialist before he became a
general manager. Yet each is recognized, for good reason, as an
outstanding manager in his field.
Implications for the Management Analyst:

I believe that the work of the management analyst of today tends to reflect the general state of understanding of managerial work. Most often, he seems to view managerial work in terms of very simple models, and he designs systems in accordance with these models. Then, he cannot understand why the manager ignores his long-range plans or does not use his information system.

On a general level, the management analyst must study and understand the work of the man for whom he designs systems and solves problems. On a specific level, he must gain access to the manager's hitherto undocumented information before he will be able to design useful systems. Thus, he will learn that the manager generally finds great need, not for the quantitative, routine, internal information that the analyst has always provided, but for uncertain, ad hoc, external information. He will find that the manager can use, not static long-range plans, but flexible plans that can be modified en route.

Implications for the Researcher:

Considering the upsurge of management research in the last decade, it is unfortunate that the manager's work activities have received so little attention. It would appear that the researcher has reacted negatively to the early attempts in this area, trying to escape from the vague statements of principle and function of the classical writers,
and seeking the refuge of the functional areas that were less ambiguous, and where quantification was possible immediately. We can no longer afford to ignore managerial work as a research area.

There is no doubt that there will be a far greater gain at this point from descriptive research on the manager than from normative research on planning and information systems. For the latter can have little meaning until we know much more about the manager's work.

Furthermore, there is a need to view managerial work from a comprehensive view. In particular, the communication roles cannot be separated from the decision-making roles, and research must focus on the dynamic stream of decisions, not on the isolated decision. The work of managing is complex, far more complex than most research studies would lead the reader to believe. Research that focuses in depth on the many dimensions of a few managers will lead to far more useful results than research that takes a one-dimensional cut of many managers.

The study of managerial programs would seem to offer very interesting and useful research opportunities. This will be challenging research, but will lead to the most meaningful normative research.

"Structured observation", which combines the flexibility of open-ended recording with the discipline of searching for specific kinds of data, proved to be a very effective methodology. There were problems in following and coding some activity, but, on the whole,
these were easily overcome. It was possible to achieve fully the
research objectives. The Hawthorne effects were not considered to be
significant, and the data collected were considered to be representative,
as is indicated by the similarities among the data collected in each
of the five cases.

The method is taxing to apply, and the sample size is severely
limited. But these disadvantages are far outweighed by the valuable
kinds of data that can be collected. There is simply too much activity
in the manager's office to expect reasonable data from diaries,
interviews, and questionnaires.

This study concentrated on five man-weeks. It would be worthwhile
to build up a much larger inventory of data of all kinds. Individual
managers might be studied for longer periods, more managers might be
studied for one-week periods, and a variety of other kinds of
managers might be studied -- foremen, middle managers, foreign
managers, managers elected to government, inexperienced managers,
managers trained in different kinds of management schools, and so on.

With the body of information that would result from such studies,
a number of interesting analyses could be undertaken. For example,
with criteria developed to measure organizational characteristics and
organizational differences, a number of comparisons could be made:
(a) the power structures in public vs. private organizations, (b) the
nature of managerial activities in large vs. small organizations, (c)
strategy-making in competitive vs. monopolistic organizations, (d)
the flow of information in centralized vs. decentralized organizations, and so on. It would also be interesting to compare the managers of different nationalities, for this would provide further understanding of the distinguishing habits of American managers.

An inventory of data on managerial work activities would serve to develop various hypotheses. What, for example, is the relationship between time spent on touring activity and time spent on strategy-making? Do managers who read more disseminate more?

This research was undertaken to demonstrate and partially fill an obvious gap in management research. It is hoped that the results will serve the various members of the management community, that the description of characteristics will lead the manager to a better understanding of the impact he has on his organization, that the description of roles will provide the analyst with a framework by which to analyze the effects of new management systems, that the description of programs will stimulate the researcher to further our understanding of managerial work and to develop normative theory grounded in descriptive theory.

With two-thirds of the twentieth century behind him, the management scientist can review with satisfaction his accomplishments in the analysis of production work and the work of routine decision-making. Today, a new and very difficult, although not totally different, problem faces him. He must analyze the work of managing organizations.
BIBLIOGRAPHY


BIBLIOGRAPHY (Continued)

Centre Emile Bernheim pour l'Etude des Affaires, Les cadres supérieurs des entreprises: leur origine, leur carrières, leur caractéristiques (Bruxelles: Université Libre de Bruxelles, 1959).


BIBLIOGRAPHY (Continued)


Factory, "New Ways to Look at the Manager's Jobs" (December, 1957), pp. 110-112.


BIBLIOGRAPHY (Continued)


Hodgson, Richard C., et al., The Executive Role Constellation: An Analysis of Personality and Role Relations in Management (Boston: Harvard University Graduate School of Business Administration, 1965).


Jennings, Eugene E., The Executive in Crisis (East Lansing, Michigan: Graduate School of Business Administration, Michigan State University, 1965).


Learned, Edmund P., et al., Executive Action (Boston: Harvard University Graduate School of Business Administration, 1961).


