EXECUTIVE ROLES IN TECHNICAL BUREAUS

A Study of Senior Executives in Five
Scientific and Technical Bureaus of
the Federal Government

by
James W. Davis, Jr.

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in the
University of Michigan
1964

Doctoral Committee:

Associate Professor Robert S. Friedman, Chairman
Assistant Professor Eugene Feingold
Professor Ferrel Heady
Associate Professor Robert H. Pealy
Dr. Jonathan A. Slesinger

PREFACE

In September 1962 I became associated with a research project at the Survey Research Center of the University of Michigan which was starting an investigation of "Executive Styles and Associated Characteristics among High Level Public Administrators." At its inception the project was viewed as a small scale exploratory effort. Work was in the preliminary stages and no field work was being done. A few months later the Survey Research Center was awarded a contract to do "Studies toward the Assessment and Improvement of Performance in Certain Bureaus" in a department of the federal government. I was associated with this project for six months as well as with the first project. During that time the research was planned, exploratory interviews were conducted and a questionnaire of 166 items was prepared and administered to the executives and a sample of the professional employees in the bureaus. Subsequent to the administration of the questionnaires 55 senior executives were interviewed in an effort to get information that could not be readily obtained with the questionnaires. This study is based on data from these sources.

A year at The Brookings Institution provided the time to read, to analyze data, and to write. For the support of Brookings I am most grateful. Without it the study would have been more difficult and taken longer.

Few studies are started or finished alone. This, perhaps more than most, has been a joint effort. Convention demands that I accept

full responsibility for failures, errors, and other blackmarks, but conscience demands that I give full credit for any and all virtues to several others. Robert S. Friedman, chairman, colleague, and friend, has read and criticised innumerable tedious pages. Jonathan Sloninger never failed to be challenging. Franklin Neff saw that I got data promptly and in useful shape.

The typing chore was handled expeditiously and neatly by Kay Hobart, Deborah Bliss, and Janet Porter. They brought not only skill but humor to the task.

Finally I must acknowledge the help and criticism of Jean. Her eye for nonsense, error, and clumsiness has been a boon.

TABLE OF CONTENTS

		Page
PREFACE		ii
LIST OF TABLES		vi
Chapter I.	THE EXECUTIVE ROLE EXAMINED	1
	Introduction The Meaning of Executive The Relevance of Role Theory From Concepts to Variables The Organization of the Study	
II.	EXECUTIVES AND EXPERTS: RESEARCH IN PROFESSIONAL ORGANIZATIONS	14
	Science in Organizations Managers and Professionals The Career Identification of Organization Members The Rule Following Behavior of Organization Members	
III.	STUDYING EXECUTIVES: SOME DIFFERENT APPROACHES	30
	An Overview The Study of Leadership Executives and Authority Attitudes Toward Authority, the Organization, and Work The Functions of Executives	
IV.	HYPOTHESES TO GUIDE THE ANALYSES	52
	Career Identification Work Involvement Rule Following Behavior Reason for Obeying	
V.	THE SOURCES OF DATA: THE SITES AND THE POPULATION	59
	Research in Five Organizations Data Collection and Processing The Sites of the Study Some Characteristics of the Executives Activities of the Executives	

Chapter | Page

VI. THE CAREER IDENTIFICATION OF THE EXECUTIVES: INSTITUTIONALISTS AND PROFESSIONALS 87

The Analysis of Career Identification
Rank and Career Identification
Career Identification and Organization
Education and Career Identification
Age and Career Identification
Length of Service and Career Identification
Career Identification and Job Satisfaction
Career Identification and Administrative Executives
Conclusion

VII. EXECUTIVES AND THEIR WORK 108

The Work Involvement of Executives
The More Involved and the Less Involved
Career Identification and Work Involvement
Organization and Work Involvement
Rank, Age, Length of Service, and Work Involvement
Involvement and Job Satisfaction
Involvement and Job Challenge
Involvement of Administrative Executives
Conclusion

VIII. EXECUTIVES AND BUREAUCRACY: RULES AND HIERARCHY. 132

Science and Bureaucracy
Rules and Organization
The Data on Reason for Obeying
Organization and Reason for Obeying
Bureaucracy and Organizational Activity
Career Identification and Rule Following
Education and Rule Following
Administrative Executives and Rule Following
Reason for Obeying, Career Identification, and Education
Administrative Executives and Reason for Obeying
Conclusion

IX. THE STUDY OF EXECUTIVES: A SUMMARY CONCLUSION. 154

Executive Roles
The Study of Executives, Organization, and Politics
Conclusion

APPENDIX A Notes on Statistics. 165

APPENDIX B Questions from the Questionnaire 166

APPENDIX C Questions from the Interview 172

BIBLIOGRAPHY. 178

LIST OF TABLES

Table		Page
1.	Ages of Executives in This Study	70
2.	Average Age by Grade of Executives in Warner-Van Riper Study and This Study Compared	71
3.	Mean Age of Executives by Hierarchical Rank	71
4.	Hierarchical Rank by GS Grade	72
5.	Length of Service in the Federal Government	72
6.	Length of Service in Present Organization	73
7.	Length of Service in Present Position	73
8.	Number of Organizations that Executives in Warner-Van Riper Study and This Study Have Worked For	74
9.	Membership in Professional Societies	78
10.	Membership in Professional Societies by Grade	78
11.	Activity in Professional Societies by Grade	79
12.	Educational Level of Executives	80
13.	Education by Grade	81
14.	Academic Fields of Concentration of Executives	81
15.	Distribution of Responses to Direct Career Identification Question	89
16.	Distribution of Responses to Indirect Career Identification Question	90
17.	Number of Executives Responding the Same Way to Both Career Identification Items	90
18.	Distribution of Responses to Five Year Future Item	92
19.	Career Identification of Executives	82

Table Page

20. Career Identification Related to Rank. 94

21. Career Identification of Executives by Organization. . . . 95

22. Education and Career Identification. 97

23. Education and Career Identification II 97

24. Education of Executives by Organization. 98

25. Age of Institutionalists 99

26. Institutionalists and Length of Service in Organization 100

27. Career Identification and Length of Service in Organization 100

28. Distribution of Responses to Question About Job Satisfaction 101

29. Distribution to Question About Satisfaction with Agency and Job 101

30. Job Satisfaction and Career Identification 102

31. Satisfaction with Agency and Job and Career Identification 102

32. Satisfaction with Agency and Job and Five Year Future 103

33. Career Identification of Administrative Executives 104

34. Education Level of Administrative Executives Compared with That of Other Executives 104

35. Rank of Administrative Executives Compared with That of Other Executives 105

36. Response to Work Involvement Question. 108

37. Work Weeks of Executives 111

38. The Importance of Work to Executives as It Appears to Others. 112

39. The Importance of Work to Executives According to Them 112

40. Relationship Between Felt Involvement and Time Worked 113

Table Page

41. Relationship Between Felt Involvement in Work and How Important Executive Thinks Work is in His Life . . . 114

42. Relationship Between Felt Involvement in Work and How Important Executive Thinks Other People Think His Work is to Him 114

43. Relationship Between Time Worked and How Important Executive Thinks Work is in His Life 115

44. Relationship Between Time Worked and How Important Executive Thinks Other People Think Work is to Him . . . 115

45. Relationship Between How Important Executives Think Work is and How Important They Think Others Will Think it is to Them. 116

46. The More Involved and the Less Involved. 118

47. Career Identification Related to Work Involvement. 119

48. Work Involvement of Executives by Organization 120

49. Work Involvement Related to Rank 121

50. Work Involvement by Age. 122

51. Work Involvement by Age of Division Chiefs and Below . . . 122

52. Work Involvement by Age of Office Chiefs and Above 123

53. Relationship Between Executive Age and Length of Service in Organization. 123

54. Work Involvement Related to Length of Service in Organization 124

55. Work Involvement Related to Rank and Length of Service in Organization. 125

56. Work Involvement and Length of Service of Office Chiefs and Higher 126

57. Work Involvement and Length of Service of Division Chiefs and Lower. 126

58. Rank and Length of Service Related to Job Satisfaction 127

59. Work Involvement Related to Job Satisfaction 127

60. Work Involvement Related to Job Challenge. 128

Table | Page

61. Work Involvement and Administrative Executives 129

62. Distribution of Responses to Frequency of Deviation Item 133

63. Deviation From Rules Related to Organization 134

64. Why Executives Obey. 137

65. Most Important Reason for Obeying by Organization. 138

66. Distribution of Responses to Item Asking About Opportunity to Contribute to Technical Knowledge 143

67. Career Identification and Rule Following 146

68. Rule Following Behavior by Education 148

69. Administrative Executives and Rule Following 149

70. Rule Following Behavior of Executives by Rank. 150

71. Reason for Obeying by Career Identification. 151

72. Reason for Obeying by Education. 151

73. Reason for Obeying and Administrative Executives 152

CHAPTER I

THE EXECUTIVE ROLE EXAMINED

Introduction

This study is an effort to describe and analyze executive roles in five government bureaus that employ large numbers of scientists, engineers, and other technically trained personnel. More precisely, the study deals with aspects of these roles and is concerned with how executives resemble each other and differ from each other along several dimensions. The study is concerned, too, with the impact of personal and organizational variables on the aspects of the executive roles.

The study of these executive roles seems important for several reasons. The first is that until recently most research on executives has been carried out in business organizations. Executives in government organizations have received much less attention from researchers; even considering the recent spate of work, the gaps in our knowledge are still substantial.

Noticeable also is the lack of specific information about executives in scientific and technical organizations, government or business. Numerous studies of scientists and laboratory directors have been carried out, but the higher one goes in the hierarchy, the fewer are the studies. Furthermore, although a growing number of organizations employ scientists and other technically trained personnel the implications of this development for organization theory are not yet understood. This study, while concerned specifically with

executives, may also add to our knowledge of scientific organizations. Indeed, the study of executives may contribute to our understanding of organizational behavior generally and to the development of organization theory. Certainly the study of executives seems an essential part of the study of formal organizations.

The Meaning of Executive

Considerable attention to the meaning of the word "executive" might be expected inasmuch as this whole study deals with men called executives. Yet little time will be spent on the task of definition. It seems enough to note that executives in organizations are those men at the pinnacle of the hierarchy who are responsible for the organization: for setting its goals, defining its mission, and seeing that goals are met. In this study senior executives, members of top management, are being studied. Bureau chiefs and their deputies, office and division chiefs are the universe of this study.

As the next chapter shows, the study of executives has been approached in many ways. Much has been written about executives; the amount and variety of materials on the related subjects of leadership and supervision are staggering. Yet, we still know little about the factors that may mold executive attitudes and behavior. We know little about the impact of the organization on executives. This study explores these and related questions in an attempt to provide more information about the executive role.

Although we might assume much and say little about the definition of executive, the opposite is true of "role." We can assume little and must say a good deal. This study begins, therefore, by considering role and role theory. We can start by emphasizing that the executive,

whatever else he may be, whatever else he does, is an organization member. From one point of view he is a part of a whole. In other language he is an actor among other actors in an organization. The executive, as actor among other actors, is acting a role.

The Relevance of Role Theory

Possibly one of the most overused and underdeveloped bodies of theory in the social sciences is role theory. A few years ago Alex Inkeles made this point when he wrote: "Although sociologists give a central place in their conceptual scheme to the role concept, it is surprising to discover how underdeveloped this area of study is."[1] In the course of reviewing the literature Neiman and Hughes commented on the problems of the role concept, and Gross, Mason, and McEachern noted in their book that although the role concept occupied a key position in social science it was a hazy concept.[2] S. F. Nadel, whose book The Theory of Social Structure makes extensive use of the role concept, has expressed misgivings "about the lax and often confused way" in

---

[1]Alex Inkeles, "Personality and Social Structure," in Robert Merton, Leonard Broom, and Leonard S. Cottrell, Jr. (eds.), Sociology Today (New York, 1959), p. 261.

[2]L. J. Neiman and J. W. Hughes, "The Problem of the Concept of the Role--A Resurvey of the Literature," Social Forces, 30 (1951), pp. 141-149. Neal Gross, Ward S. Mason, and Alexander W. McEachern, Explorations in Role Analysis (New York, 1958), p. 3. In summarizing the use of the role concept these researchers wrote: "But as we and others who have examined the use of the role concept in the social science literature have observed, despite its increasing involvement in conceptual schemes for explaining social behavior and cultural and social systems, it has yielded few significant hypotheses of theoretical importance. If one judges the scientific utility of a concept by the degree to which it is involved in significant theoretical propositions that are capable of empirical examination, it must be said that in current formulations the role concept has not proved its worth." pp. 319-320.

which role theory and the role concept are handled.[3]

The past development and use of the role concept can certainly be criticised. Nevertheless, the use of the role concept, or something developed from it, is appropriate when the object of study is an individual in a social system. According to Parsons and Shils:

> The individual actor as a concrete system of action is not usually the most important unit of a social system. For most purposes the conceptual unit of the social system is the role. The role is a sector of the individual actor's total system of action. It is the point of contact between the system of action of the individual actor and the social system.[4]

More simply Nadel notes that the role concept provides a concept "intermediary between 'society' and 'individual.'"[5] These observations suggest that the role concept can contribute to an understanding of the relationship between organization and member. They suggest more specifically that the role concept can contribute to an understanding of executives. It is not enough, of course, simply to decide to use the role concept. The difficult problem of how to use it must also be resolved. Gross, Mason, and McEachern have observed that holistic definition is one of the difficulties in the way of fruitfully using the role concept.

> Our research experience suggests that when a more differentiated set of concepts are developed to denote subsidiary notions involved in the general conception of role, these microscopic terms may be fruitfully used in theoretical propositions. That is, the ideas to which role refers, if treated as a family of concepts instead of in a holistic manner, may be made available for theoretical hypotheses.[6]

---

[3]S. F. Nadel, The Theory of Social Structure (Glencoe, 1957), p. 22.

[4]Talcott Parsons and Edward A. Shils (eds.), Toward A General Theory of Action (Cambridge, 1954), p. 190.

[5]Nadel, op. cit., p. 20.

[6]Gross, Mason, and McEachern, op. cit., p. 324.

The researchers themselves developed a family of role concepts and explored "the problems of consensus on role definition, conformity to expectations and role conflict resolution."[7] In their investigation they obtained from a specific population, school board members, the expectations they held for school superintendents. This kind of analysis, as Kenneth Janda has suggested, permits the study of "the behavioral consequences of role clarity or ambiguity and the different types of role conflict."[8] A design such as that of Gross, Mason, and McEachern not only can explore these particular problems, it can also explore the general problem of role definition. That is, it can help us understand or explain the behavior and attitudes associated with a particular role. Obviously, however, neither behavior nor attitudes is a result only of the expectations of others. A role is defined not only by the expectations of others but by additional role demands and the role conceptions and role performances of role occupants.

Role demands have been defined quite broadly by Daniel Levinson.

> They are the situational pressures that confront him [the role player or occupant] as the occupant of a given structural position. They have manifold sources; in the official charter and policies of the organization; in the traditions and ideology, explicit as well as implicit, that help to define the organization's purposes and modes of operation; in the views about his position which are held by members of the position (who influence any single member) and by members of the various positions impinging upon this one.[9]

---

[7]Ibid., p. xi.

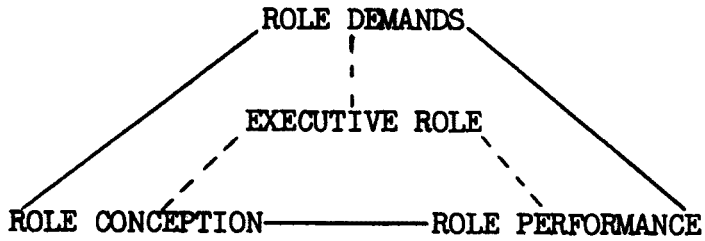
[8]Kenneth F. Janda, "Democratic Theory and Legislative Behavior: A Study of Legislator-Constituency Relationships" (unpublished Ph.D. dissertation, Indiana University, 1961), p. 134.

[9]Daniel J. Levinson, "Role, Personality, and Social Structure in the Organizational Setting," Journal of Abnormal and Social Psychology, 58 (1959), p. 193.

Levinson's writing thus makes clear that an executive role is defined by formal directives and official job descriptions, by the history and traditions of the organization (and the position), by the views of others who occupy identical or similar positions, and also by those who have contact with him no matter what their position.

A role is not defined completely, however, by role demands; also important is personal role definition. Levinson, in taking notice of this, divided personal role definition into two categories: role conception and role performance. Role conception exists on the ideational level, rather than the behavioral, and delineates "the specific functions, values, and manner of functioning appropriate to one position within" a social structure.[10] Role performance "refers to the overt behavioral aspect of role-definition--to the more or less characteristic ways in which the individual acts as the occupant of a social position."[11]

The foregoing view of role definition can be briefly summarized and perhaps clarified by the diagram below. It shows that the executive



role is the result of demands, conception, and performance; of social, organizational, and personal factors. It seems likely that this view of the executive role may be useful in studying executives. But with so many concepts and so many variables that might be considered it is

---

[10] Ibid., p. 176.

[11] Ibid.

hard to know where to start and what to study. The problem is a serious one. Relatively fruitless research may be the result of starting with the wrong concepts, considering the wrong variables and asking the wrong questions. There may be little difficulty if one is studying a problem suggested by role theory. The study of role consensus clearly indicates the desirability of studying expectations. But for other problems not obviously amenable to the concepts of role theory there is difficulty. How can the concepts of role theory be used in the analysis and description of executive roles?

From Concepts to Variables

The preceding section has indicated how the executive role may be conceptualized. There is some distance, however, between conceptualization and actual investigation. Before investigation can begin variables and indicators of these variables are needed. When these are searched for it becomes clear that in practice it is not possible to study executive roles in their entirety; it is possible to study only aspects of the executive role. As Gross, Mason, and McEachern found, it is necessary to focus on particular variables. It is necessary to focus on particular dimensions of performance and conception and on particular demands.

In this study selection of variables to be studied has been guided by two considerations. One consideration has of course been the availability of data. In addition, presumed importance or theoretical relevance has been considered. There was no clear way to judge importance, but before deciding what variables to consider, at least initially, literature relevant to the study was reviewed. This study of past research and writing suggested variables that it seemed worthwhile to

consider and resulted in the formulation of hypotheses that have guided the analysis. These hypotheses are set out in detail at the end of Chapter III after the materials from which they derive have been reviewed. It seems appropriate here, however, to comment briefly on the materials that this study considers.

Career identification is one of the most important variables in the literature that deals with the role conceptions of organization members, and study of it seemed desirable in a study of executive roles. Career identification refers to the cosmopolitan-local dichotomy suggested by Merton and by Gouldner.[12] It refers also to the institutionalist-specialist dichotomy posited by Marvick and to the career civil servant-professional dichotomy posited by Slesinger.[13] Indicators for this variable have been fairly well developed and data concerning it were available.

Although the analysis of career identification seems to present no special problems the same cannot be said for the analysis of role performance variables. Levinson has observed that "the formulation of adequate variables for the analysis of role performance is in fact a major theoretical problem and one of the great stumbling blocks in empirical research."[14] This may be an understatement. Which aspects of

---

[12]Robert K. Merton, "Patterns of Influence: Local and Cosmopolitan Influentials," in his Social Theory and Social Structure (Glencoe, 1957), pp. 387-420. Alvin W. Gouldner, "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles," Administrative Science Quarterly, 2 (1957-58), pp. 281-306 and 444-480.

[13]Dwaine Marvick, Career Perspectives in A Bureaucratic Setting (Ann Arbor, 1954). Jonathan A. Slesinger, Personnel Adaptations in the Federal Junior Management Assistant Program (Ann Arbor, 1961). For further discussion of these dichotomies see pp. 22-27, infra.

[14]Levinson, op. cit., p. 176.

performance are important and which are trivial? Which are general and which are idiosyncratic? How can data be collected? These are a few of the questions that need answering.

In this study much performance data was collected by questionnaire--executives were asked to answer questions about various aspects of their performance. This may not be a completely satisfactory way to obtain performance data, but alternative ways of collecting data also have their disadvantages.[15] The problem of generality was especially important in this case since the number of respondents was not large. It was resolved with the assumption that generality would be likelier if the performance variables to be studied were related to how the executives approached their work, not specifically to what they did in their work. Form or style, not substance, was thus the focus. As noted earlier the problem of importance was resolved by falling back on the literature for guidance.

"How hard do executives work?" is a question that is recurrent in the literature dealing with executives. The question points to a performance variable, time worked, and one that is a matter of style, not substance. Furthermore it is general; all executives can be compared to one another along this dimension. Rule following behavior is another performance variable that is considered in this study. Suggested by Turner, by Merton, and by Slesinger it refers to the propensity to deviate from rules or to conform to them.[16] Another performance variable

---

[15]Observation was impossibly uneconomical and presented other difficulties as well. Record checking is dependent on the availability of records dealing with the variables in question. In this case there were no records and probably this would often be true except for trivial matters. (For questions used see Appendix B.)

[16]Ralph H. Turner, "The Navy Disbursing Officer as a Bureaucrat," American Sociological Review, 12 (1947), pp. 342-348. Robert K. Merton, "Bureaucratic Structure and Personality," in his Social Theory and Social Structure, pp. 195-206. Slesinger, op. cit. see especially pp. 41-42.

considered is the relationship of the executive with his superior.

There are several reasons why analysis of these particular performance variables seems worthwhile. One reason is that these variables have in the past been frequently examined and it is important in social science to maintain continuity of research. Without continuity there can be no accumulation of knowledge. Beyond this these dimensions of performance seem to be intrinsically important. This assertion cannot be proved, but the reasoning behind it can be made clear.

How much an executive works may be a very rough indicator of his worth to his organization. It seems a reasonable assumption that the executive who devotes 60 hours a week to his work may contribute more to his organization than one who devotes only 40 hours, which is the minimum time required. Certainly there is no one for one relationship between time worked and worth to the organization. Exceptions are easy to find. No doubt inefficiency and inability to delegate may explain some long hours. A recent study of federal personnel, however, reported that executives in the federal government mentioned "energy, drive, and willingness to work hard and long" as factors that contributed to the success of outstanding employees named by them.[17] It thus seems important to study this dimension and, if possible, discover the organizational and personal characteristics that are associated with various levels of work.

Rule following behavior and relations with superiors seem important for other reasons. Analysis of the rule following behavior of executives may yield more knowledge of the bureaucratic personality.[18]

---

[17]David T. Stanley, "The Higher Federal Civil Service,"(Washington, 1964), p. 5-2. Prepublication draft.

[18]Robert K. Merton, "Bureaucratic Structure and Personality," in his Social Theory and Social Structure, pp. 195-206.

We may find personal and organizational characteristics that are associated with deviating from the rules and we may find some that are associated with strict obedience. Findings may have relevance for the study of innovation and creativity. More important, studying rule following behavior in organizations of professionals may help us learn more about such organizations. Studying the relations that executives have with their superiors may also contribute to our knowledge of behavior in professional organizations.

A great number of role demands impinge on the executive role. It is not a simple task to decide which demands to consider, but it is less hard when all demands are not equally relevant in all situations or when it is impracticable to consider some demands. For example, whether one elects to investigate the expectations of others may not be a matter solely of choice. If the problem at hand is to understand executive roles which are defined by known persons or groups then much information may be economically obtained by studying the expectations of the defining group members. But if the defining group is not known then their expectations can scarcely be investigated. If the defining group is large or diffuse it may be more economical to investigate other role demands.[19] And in any case, if a defining group is diffuse, demands other than the expectations of others may be more important.

---

[19] T. C. Cochran in "The Historian's Use of Social Role" in L. Gottachalk (ed.), Generalization in the Writing of History (Chicago, 1963), p. 105 illustrates the diffuse defining groups of a corporation executive: ". . . in a corporation with directors composed partly of the chief officers of the company, the board, led presumably by the officer personnel, will be the major defining group for the chief executive roles, but in each of his operations the top executive deals also with subordinates who form minor defining groups for segments of his role, though such subordinates may never be considered by the board of directors as forming defining groups for them. Large suppliers, customers, or public officials may also constitute minor defining groups."

In this study there appeared to be no readily identifiable defining group whose expectations defined the roles of the executives being studied. Superiors, subordinates, and peers, Congressmen, professional colleagues, and the general public may all have a hand in the process. There seemed, therefore, to be little point in investigating expectations. There were several role demands, however, that were both feasible and important to study.

Past research suggests that the relationships of rank, position, and organization with role conception and role performance may be worth exploring. For example, William Evan has pointed to a relationship between position and role conception. He writes that "role differentiation, whether viewed hierarchically or horizontally, leads to what Mannheim has called 'perspectivistic thinking,' namely, incumbency in a particular status induces a corresponding set of perceptions, attitudes, and values."[20] The hypothesis that this suggests is that executives in different positions will have different role conceptions and different role performances and that executives in similar positions will have similar role conceptions and similar role performances.

Other research suggests that executives in different organizations may have different role conceptions and role performances. Richard Hall has recently suggested that the type of activity pursued by an organization may be highly related to the degree of bureaucratization in an organization.[21] This study does not measure bureaucratization along its several dimensions as Hall did, but the analysis of rule

---

[20]William M. Evan, "Role Strain and the Norm of Reciprocity in Research Organizations," American Journal of Sociology, 68 (1962), p. 346.

[21]Richard H. Hall, "The Concept of Bureaucracy: An Empirical Assessment," American Journal of Sociology, 69 (1963), p. 39.

following behavior and of relations with superiors may roughly determine the degree of bureaucratization along a few dimensions. The hypothesis that Hall's research suggests is that rule following behavior will be related to the activity of the organization and that relations with superiors will also be related to activity. Although the executives in this study all come from scientific and technical organizations their activities are different enough to warrant exploration of these hypotheses.

The Organization of the Study

The preceding paragraphs have dealt with the concepts and variables with which this study is concerned. After examining the variables in more detail the objectives of the study will be a description of the executives in terms of the variables and an analysis of the relationships between the variables.

The next two chapters review literature that is relevant to the study. Chapter II is concerned especially with research that has been carried out in scientific organizations. Chapter III is concerned with the executive literature, and Chapter IV contains hypotheses that have guided the data analysis. Chapter V describes the sites and the population and discusses the data collection phase of the research. Chapters VI through VIII present and analyze the data and are concerned with career identification, the work involvement of the executives, their rule following behavior, and their relations with their superiors. Chapter IX provides a summary discussion of the research and of the executive role.

CHAPTER II

EXECUTIVES AND EXPERTS: RESEARCH IN PROFESSIONAL ORGANIZATIONS

Science in Organizations

It seems important to give attention to executives in scientific and technical organizations because science and scientists are increasingly becoming organized. In his Science and the Social Order Bernard Barber has commented on the increasing number of hierarchical organizations that use science. He has also noted:

> The incorporation of science into established bureaucracies devoted primarily to other ends--industrial and governmental bureaucracies, for example--has also increased the amount of formal organization in scientific research. This is in part a consequence, of course, of the increased applicability of science. But even where the applicability of science is not at stake, at least not immediately, there is a pressure upon groups of scientists to organize themselves more formally in order to deal in a regular and orderly fashion with the other parts of the bureaucracy in which they are now incorporated.[1]

Barber stresses that the increased organization of science may have been particularly felt in government. Government research, he notes, "has suffered as much and more than industrial or university science from those organizational problems that afflict all 'bureaucracies.'"[2]

When Barber says that science is more organized than ever he cannot be disputed. But when he goes beyond this and implies that

---

[1] Bernard Barber, Science and the Social Order (Glencoe, 1952), p. 127.

[2] Ibid., p. 174.

scientific organizations are bureaucratized his assertion calls for empirical investigation. It especially needs to be investigated in particular organizations. Many differences between organizations may be concealed by speaking simply of "government research."

Although it is a common observation it bears repeating that a formal organization need not always be a Weberian bureaucracy. There are different sorts of formal organization, of rational administration. This proposition has been examined in several places and need not be elaborated here.[3] We may note, however, that Francis and Stone concluded that their evidence "did not sustain the notion that bureaucracy implies impersonality and rule following."[4] These authors reached the conclusion that bureaucracy did not imply one dominant pattern but that there were several patterns.[5] They were particularly concerned to point out that the Weberian theory "pays little or no attention to the growth of the

---

[3]Richard H. Hall, "The Concept of Bureaucracy: An Empirical Assessment," American Journal of Sociology, 69 (1963), pp. 32-40; Richard H. Hall, "Intraorganizational Structural Variation: Application of the Bureaucratic Model," Administrative Science Quarterly, 7 (1962), pp. 295-308; Morris Janowitz, "Changing Patterns of Organizational Authority: The Military Establishment," Administrative Science Quarterly, 3 (1958), pp. 473-493; Eugene Litwak, "Models of Bureaucracy Which Permit Conflict," American Journal of Sociology, 67 (1961), pp. 177-181; Authur L. Stinchcombe, "Bureaucratic and Craft Administration of Production: A Comparative Study," Administrative Science Quarterly, 4 (1959), pp. 168-187; Stanley H. Udy, Jr., "Bureaucracy and Rationality in Weber's Organization Theory: An Empirical Study," American Sociological Review, 24 (1959), pp. 791-795.

[4]Roy G. Francis and Robert C. Stone, Service and Procedure in Bureaucracy (Minneapolis, 1956), p. 13.

[5]Ibid., p. 125.

professional mode of organization in the modern world."[6] They went on to suggest that the principles of bureaucracy and professionalism often pointed to contradictory ways of organizing.[7]

Amitai Etzioni has also been concerned with professional organizations. He argues that the compliance structure of an organization is related to the goals of the organization and the kind of employees in the organization.[8] He suggests that in professional organizations, behavior is controlled to a great extent by the prevailing professional ethic, but that in other kinds of organizations behavior is controlled in other ways.[9] In other words, organization members may obey for different reasons.

The work of Etzioni and of Francis and Stone, as well as that of numerous other writers, makes clear that formal organizations may not all resemble the Weberian ideal type. Yet, despite past work, our lack of knowledge about scientific organizations is still impressive. Especially since science today is more organized than ever in the past, it seems important to learn more about scientific organizations.

Managers and Professionals

Etzioni has observed that managers and experts, the two main groups in a professional organization, differ from each other in terms of their

---

[6] Ibid., p. 153.

[7] Ibid., pp. 154-157.

[8] Amitai Etzioni, A Comparative Analysis of Complex Organizations, (New York, 1961), p. xv.

[9] Ibid., p. 51.

"(a) role structure, (b) personality, (c) background, mainly in terms of educational and occupational experience, and (d) normative orientations."[10] In Managers and Scientists, Hower and Orth also point out differences between these two groups. They talk in terms of a management culture and a scientific culture, and they point out that each of these cultures involves a distinct value orientation. In describing the two cultures Hower and Orth say that:

> The man who favors the values and ideals of the scientific community has an orientation predominantly external to the company he works for. Getting ahead, for him, means impressing fellow scientists--especially the recognized authorities outside his company by his technical achievements. The man who identifies with the management community will usually but not invariably have an internal orientation.[11]

The management culture places a high value on hierarchical authority and loyalty. Conformity to established policies and procedures is also valued. In contrast, Hower and Orth assert that the scientist is trained to think independently, to be skeptical, to demand the greatest possible objectivity in work "and to submit to the authority of established scientific criteria and technical competence rather than the authority of hierarchical position."[12]

Robert Presthus has also commented on the division between the manager and the expert. The managerial type, the upward mobile in Presthus's

---

[10] Amitai Etzioni, "Authority Structure and Organizational Effectiveness," Administrative Science Quarterly, 4 (1959), p. 45.

[11] Ralph M. Hower and Charles D. Orth, Managers and Scientists: Some Human Problems in Industrial Research Organizations (Boston, 1963), p. 33.

[12] Ibid., p. 33. A number of similar statements appear in the sociology of science literature. See for example Bernard Barber, op. cit., p. 90.

language, emphasizes strength, dominance, compulsion, and efficiency.[13] He believes in firm leadership[14] and "the most significant item in the upward mobile personality is his respect for authority."[15] His orientation is mainly procedural rather than substantive.[16] The upward mobile is also committed to the organization. "He may respect individual dissent and error, but the question is one of priority, and in the last analysis he will accept the organization's values."[17] "The organization qua organization," says Presthus, "has meaning for him evoking loyalty, affirmation, and a constant point of reference."[18] The upward mobile identifies strongly with his organization and indeed seems to have an intensely personal attachment to his superior.[19] He accepts the organization's goals and may be impatient with those who qualify and dissent.

> In the context of Merton's distinction, the upward mobile is typically a "local." Unlike the "cosmopolitan" who has a broad disciplinary or national perspective, his interests and aspirations are tied to his own organization. Always loyal, he regards its rules and actions as "the one best way" to handle large numbers of people. . . Never doubting the supremacy of collective values, the upward mobile enthrones administrative, keeping-the-organization-going skills and values.[20]

---

[13] Robert Presthus, The Organizational Society (New York, 1962), p. 174.

[14] Ibid., p. 131.

[15] Ibid., p. 196.

[16] Ibid., p. 190.

[17] Ibid., p. 179.

[18] Ibid., p. 168.

[19] Ibid., p. 132.

[20] Ibid., p. 179.

In the formulation suggested by Presthus the expert is not likely to be an upward mobile. His values are different from those of the managers.

> He honors theory, knowledge, and skill. Socialization as an independent professional often blinds him to legitimate, organizational needs for control and co-ordination. Believing explicitly that both motivation and expertise come from within, he resists bureaucratic rules and supervision. Attempts to impose standards from without are seen as presumptious and denigrating.[21]

Because the differences between managers and experts can lead easily and quickly to conflict, ways to avoid conflict have been sought. Etzioni suggests that the conflict is often tempered by appointing semi-experts, men with expert background but with managerial role conceptions, to managerial positions. Although this study does not deal directly with the conflict between managers and scientists nor with the effectiveness of semi-experts at mediating the conflict it does analyze the role conceptions and performances of managers with an expert background.

Research by some investigators suggests that scientists who are managers may behave much more like managers than like scientists. Professor Renato Tagiuri has been collecting data which, according to Hower

---

[21] Ibid., p. 259. Presthus indicates that usually the expert will be an "ambivalent." He does suggest that an alternative pattern of accomodation is "indifference." The indifferents withdraw from their work environment and redirect their interests. Work is a means of buying satisfactions unrelated to work. "This separation of work from 'personal' life underlies the indifferent's perception of the bureaucratic situation. Aware of his essentially commercial nexus with the organization, he resists the image of himself as a commodity. Although he must accept the economic bargain, selling his skill and energy for forty hours a week, the remaining time is jealously guarded as his own. Since he is immune to the organization's values, loyalty is not included in the bargain." p. 220.

and Orth, "indicates that the value patterns of scientists turned managers, resemble, to a surprising degree, those of the non-scientist managers."[22] Hower and Orth suggest that this may be because the differences between the values of scientists and managers in industry may not be as great or clear cut as has been thought. It may also be, of course, because a change in role affects the attitudes of personnel.[23] The demands of a managerial role may, at least to some extent, produce managerial attitudes and behavior. In line with this Kornhauser has suggested that as a scientist-administrator rises in rank, the norms of management become more and more controlling.

> The adaptation of the scientist-administrator tends to vary according to his rank: the higher the position, the more controlling are the norms of management and the organization; the lower the position, the more responsive is the scientist-administrator to professional norms and demands. Since the lower level positions entail supervision of scientists on matters closest to their professional interest--such as their research assignments and procedures and the rating of their research performance--the greater responsiveness of men in this role is of special importance in accommodating professional norms. Since high-level scientist-administrators are viewed by the research staff as having primarily "administrative" responsibilities--the formulation of broad policy, the selection of new personnel, the drawing up of a budget, and so on--their greater use of bureaucratic authority is more acceptable to the staff.[24]

Supporting Kornhauser's statement is our knowledge of promotion practices which also suggests that in any organization the senior executives will have similar attitudes and values. Although we do not know a

---

[22] Hower and Orth, op. cit., p. 295.

[23] Etzioni, "Authority Structure and Organizational Effectiveness," p. 47 notes, "People who enter roles which are initially incompatible with their personalities often adjust to their new roles." See also Seymour Lieberman, "The Effects of Changes in Roles on the Attitudes of Role Occupants," Human Relations, 9 (1950), pp. 385-403.

[24] William Kornhauser, Scientists in Industry (Berkeley and Los Angeles, 1962), p. 121.

great deal about promotion practices in organizations it is probably true that personnel are promoted only if they are viewed favorably by their superiors.

> The judgement of superiors, in turn, is greatly affected by the extent to which the individual conforms to the standards and values of his elders. Thus the promotional system often operates in such a manner as to reward most highly those individuals who come closest to conforming to the group norms established by their superiors.[25]

If this is true then it may follow that personnel who are promoted already possess executive attitudes and that the role does not substantially change their attitudes. This, of course, is not to argue that the new role may not change attitudes, only to argue that at the senior executive level attitudes may not need to change very much after promotion.

It may well be true that senior executives have the same or similar attitudes and values, the same role conceptions. Yet caution is necessary; generalization is risky. Levinson has observed that "many social scientists tend to assume that there is great uniformity in role conception among the members of a given social position."[26] He argues against this view.

---

[25]Charles H. Coates and Roland J. Pellegrin, "Executives and Supervisors: Informal Factors in Differential Bureaucratic Promotion," Administrative Science Quarterly, 2 (1957), p. 211. See also Theodore Caplow, The Sociology of Work, (Minneapolis, 1954), p. 68. "The essential element in hierarchic promotion is that promotion depends on the judgement, and hence on the good will, of one's superiors." Presthus's writing also suggests that the upward mobiles, the managers, will have similar values and interests. The managers are managers because they have accepted managerial values.

[26]Levinson, op. cit., p. 176.

> Although this state of affairs may at times obtain, we know that the members of a given social position often have quite diverse conceptions of their proper roles. After all, individual role conceptions are formed only partially within the present organizational setting. The individual's ideas about his occupational role are influenced by childhood experiences, by his values and other personality characteristics, by formal education and apprenticeship, and the like.[27]

All executives may tend to have the same values, or they may not. There may be similarity in the role conceptions of executives, or there may not be. Clearly it is now not possible to say much if anything that is generally true about this area of study.

The Career Identification of Organization Members

The development of professional organizations, the apparent split between managers and experts, and the frequent promotion of experts into the managerial ranks, to say nothing of our present inability to generalize safely about managerial values, makes the study of managerial and expert values a subject of considerable interest. Framed as studies of organizational versus professional values, of role conception or career identification, several such studies have been carried out. Leonard Reissman's "Role Conceptions in Bureaucracy" was one of the first of these.[28] In it he set out to determine what the civil servant conceived

---

[27] Ibid.

[28] Leonard Reissman, "A Study of Role Conceptions in Bureaucracy," Social Forces, 27 (1949), pp. 305-310.

his social role to be.[29] From data he collected in a state civil service he was able to separate four ideal-types of role conception.[30]

1. Functional Bureaucrat--seeks recognition from professional group outside of bureaucracy--"just happens to be working for the government"--faces outward and away from the bureaucracy--active in professional societies--guided by standards of success of the profession.

2. Specialist Bureaucrat--resembles functional bureaucrat but more aware of bureaucracy--seeks recognition from department and people with whom he works--overly meticulous about the rules and regulations, he attempts always to remain safely within these limits.

3. Service Bureaucrat--oriented in terms of bureaucratic structure but seeks recognition from outside group.

4. Job Bureaucrat--immersed entirely in structure--seeks recognition along departmental rather than professional lines--improvement of operating efficiency becomes an end in itself.

What is the relationship of these different role conceptions to particular organizations or to particular positions? Reissman's study

---

[29]Although he did not elaborate it Reissman introduced an interesting conceptual idea. "The content of the responses given by the bureaucrats was viewed as constituting a synthesis of three functionally interrelated levels of defining the situation in which the role is performed. The first consists of the culturally prescribed behavior which conforms to the normative standards of the society. The respect for individuality, the altruistic submergence of individual ends for the good of the group, and the qualities of amiability in dealing with people are indicative of such values in which the civil servant, as a member of society, gives credence. The second level consists of the bureaucratically defined behavior required by the formal structure of the organization. The duties, the authority, and the responsibilities which inhere in the office occupied by the individual civil servant carry with them highly explicit definitions of relationships and functions. The third level is that of the individually defined behavior which takes into account not only the requirements already distinguished, but also adds to it the unique individual elements. This includes the final synthesis of the individual's experience and the conception upon which he acts." This formulation is similar to Levinson's statement that a role is defined by external role demands as well as by internal personal factors.

[30]The typology and descriptions are in Ibid., pp. 308-309.

does not tell us. We are told only that his universe consisted of 263 cases from "that corps of bureaucrats charged with the interpretation and daily administration of the policies handed down to them by the elected legislators in the Capitol Building."[31] We might hypothesize that the functional bureaucrats would most often be found in professional organizations and the job bureaucrats in administrative organizations. Alternatively, we might hypothesize that functional bureaucrats would be in professional positions and that job bureaucrats would be in administrative positions.

The four types of role conception proposed by Reissman are similar to three types of career identification proposed by Marvick in his Career Perspectives in a Bureaucratic Setting and to those found by Slesinger in his Personnel Adaptations in the Federal Junior Management Assistant Program.[32] Marvick, analyzing data from a government research organization, found what he called institutionalists, specialists, and hybrids. As defined by him these different types of career identification resemble the job bureaucrat, the functional bureaucrat, and the specialist bureaucrat. Marvick did not distinguish a service bureaucrat orientation. Methods of data collection and analysis were different in the two studies, and this may account for the absence of the service bureaucrat in Marvick's study. It may also be important that Marvick's study was done in one organization and that Reissman's was carried out in several organizations.

---

[31] Ibid., p. 307.

[32] Marvick, op. cit., Slesinger, op. cit.

In the one organization that Marvick studied it may have been unlikely that any member would seek recognition from an outside group. The service bureaucrat may represent a pattern of accommodation found only in organizations with rather clear outside support groups or clientele groups.

Since the present study is related methodologically as well as substantively to Marvick's it seems worthwhile to examine it in detail. Marvick determined career identification by asking about it directly. In his own words:

> Toward the close of the two-or three-hour interview, each respondent was asked the following question: "There are a number of different kinds of people working in this agency. Some are career military people and some are primarily people in science or the law or some other profession. What do you consider yourself to be primarily?
>
> All respondents were classified in terms of their career choice response to this question as either "institutionalists"--civil or military service career persons; "specialists"--scientists, lawyers, engineers, accountants; or "hybrids"--both government service and speciality-group persons, according to their own statements.[33]

After delineating these three patterns Marvick compared them along several dimensions. When the types were compared in terms of their organizational position, Marvick found that the career types were fairly evenly distributed. Forty percent of the specialists were at the executive level and thirty one percent of the institutionalists were at the executive level.[34] There was a marked difference in education. Hardly anyone who had only an A.B. was a specialist while hardly anyone who had an M.A. or a Ph.D. was an institutionalist.[35] Most of the institutionalists had been

---

[33] Marvick, op. cit., pp. 31-32.

[34] Ibid., p. 35, Table IV. This finding would not have been predicted by the theory of Presthus.

[35] Ibid., p. 38, Table VI.

engaged only in public employment and most of the specialists had been engaged in both private and public employment.[36] Marvick also found that the modal specialist was rather farther advanced in his career than the modal institutionalist who was only in the beginning stages of his career.[37] An analysis of the interests of the career types indicated that specialists tended to adopt a skill bound perspective and that most institutionalists adopted a place bound one.[38]

Gouldner's study of cosmopolitans and locals examined the same variables with which Marvick's study dealt.[39] To analyze latent social identities Gouldner relied on "loyalty to the organization; commitment to professional skills, and values; and reference group orientations."[40] After reviewing several studies he proposed two ideal types, the cosmopolitans and the locals. He defined the cosmopolitan as "low on loyalty to the employing organization, high on commitment to specialized role skills, and likely to use an outer reference group orientation."[41] The locals were defined as "high on loyalty to the employing organization, low on commitment to specialized role skills, and likely to use an inner reference group orientation."[42]

---

[36] Ibid., p. 39, Table VII.

[37] Ibid., p. 39, Table VIII.

[38] Ibid., p. 129.

[39] Gouldner, op. cit. At the beginning of his study Gouldner notes, "The concept of latent role may then aid in accounting for some of the differences (in behavior or belief) among those in the same manifest role or for some of the similarities among those who have different manifest roles." p. 286.

[40] Ibid., p. 285.

[41] Ibid., p. 290.

[42] Ibid.

The cosmopolitan and the local, the specialist and the institutionalist, the functional bureaucrat and the job bureaucrat, are different terms that describe the same dichotomy. It is a dichotomy that seems prevalent and important in organizations. In his recent book Kornhauser has discussed the importance of this dichotomy in organizations and has suggested relevant hypotheses. He noted first that "the division of labor in an organization calls for a diversity of work orientations," and then he said:

> There are at least three major functions to be performed if a professional speciality is to make a satisfactory contribution to the larger enterprise of which it is a part: (1) production of technical results (e.g. scientific research); (2) administration of the conditions under which technical results are produced; (3) application and communication of technical results. Correlatively, it may be hypothesized that those who have a predominantly professional orientation tend to be strong producers of technical results; those who have a predominantly organizational orientation tend to assume administrative responsibilities; and those who seek to combine orientation to both organization and profession are especially capable of facilitating the utilization of technical results.[43]

This hypothesis suggests that the executives in the universe of this study will tend to have an organizational orientation, to be institutionalists, locals, job bureaucrats. One of the tasks ahead is to test this notion. Presthus's theory suggests that the executives will have an organizational orientation, but Marvick's research suggests that many of the executives will be specialists. Consequently, any hypothesis must be tentative.

The Rule Following Behavior of Organization Members

In the study of executive role performance it seems important to study rule following behavior. Do executives tend to deviate from rules and regulations, or do they always go "by the book?" Since rules and

---

[43] Kornhauser, op. cit., p. 121.

regulations are inherent in formal organization the answer to the question is essential if we are interested in the relationship between member and organization. Moreover, study of the rule following behavior of executives in scientific and technical organizations is one way to see if science has become bureaucratized as well as organized.

No doubt something might be learned about rule following behavior by studying only career identifications. Reissman has said of the specialist bureaucrat that he was "overly meticulous about rules and regulations." Presthus notes that the expert "resists bureaucratic rules and supervision" while the manager does not. But one cannot help wondering if there are not managers who resist rules and experts who do not. Is the relationship between career identification and rule following behavior one for one? Study of rule following behavior and the relationship between it and career identification seems in order.

Merton's classic statement on bureaucratic personality indicates that all bureaucrats tend to follow rules. We might, therefore, hypothesize that all the executives in this study would be rule following. This would be consistent with Kornhauser's proposition and would agree also with Presthus's description of the upward mobile. Turner's study, however, suggests that men occupying identical positions may exhibit quite different rule following behavior. His examination of disbursing officers in the Navy revealed a regulation type, a sincere type, and a realist type.

> The Regulation type approximates the true bureaucrat in that he remains impervious to rank, informal structures, and orders of his superiors, but goes further in employing the narrowest possible interpretation of every regulation. For fear of the General Accounting Office his rule is, "When in doubt, don't."[44]

---

[44] Turner, op. cit., p. 347.

The sincere type, said Turner, was naive, often saw no conflict between regulations and order, and was unaware of the informal organization. The realist saw regulations "as illogical concatenations of prodecures, restrictions and interpretations, frequently ambiguous, sometimes contradictory, and often, when strictly applied, defeating the purpose for which they were constructed."[45] Relying on this study and also upon Slesinger's, which analyzed rule or bureaucratic orientation as well as career identification, we might expect to find several patterns of rule following behavior. At least we might expect to find a regulation type and a realist type, a rule oriented type and a type that might be called non-rule oriented, or better, exception or deviation oriented. But, as with career identification, hypotheses must be tentative.

Substantively and methodologically the materials examined so far are closely related to the present study. This study, however, also draws on a wealth of literature that deals specifically with executives. A brief review of this literature may suggest more hypotheses for exploration. Even a cursory review will be enough to suggest the size and shape of the whole of which the study is a part.

---

[45] Ibid.

CHAPTER III

STUDYING EXECUTIVES: SOME DIFFERENT APPROACHES

An Overview

At the beginning of this chapter it may be helpful to outline briefly the several ways the study of executives has been approached. One of the more common ways to study executives is to study them as leaders. Leadership in small informal groups may have little to do with the study of executives, but the study of leaders in formal organizations is often of a piece with the study of executives. Some years ago the search for leadership traits was common. Stogdill, in his 1948 article, carefully documented this research.[1] Though much time, effort, and ink were devoted to the search for leadership traits the research results were not promising. As a consequence activity in this area has diminished and social scientists have recently been more concerned with the study of leader behavior. The Ohio State Studies[2] were devoted to

---

[1]Ralph M. Stogdill, "Personal Factors Associated with Leadership--A Survey of the Literature," Journal of Psychology, 25 (1948), pp. 35-71.

[2]A number of publications have resulted from the Ohio State Studies. Among them are: Stogdill and Carroll L. Shartle, "Methods for Determining Patterns of Leadership Behavior in Relation to Organization Structure and Objectives," Journal of Applied Psychology 32 (1948), pp. 286-291; Shartle, "Leadership and Executive Performance," Personnel, 25 (1959), pp. 375-376; Stogdill, Ellis L. Scott and William E. Jaynes, Leadership and Role Expectations (Columbus, 1956); Stogdill and Shartle, Patterns of Administrative Performance (Columbus, 1956); Stogdill and A. E. Coons, Leader Behavior: Its Description and Measurement (Columbus, 1957). Shartle, Executive Performance and Leadership (New York, 1956) draws heavily on the Ohio State Studies and contains extensive references.

this and so too has been much of the work at the Survey Research Center at the University of Michigan.[3] Much of this work has a human relations orientation.[4]

Another way of thinking about executives is to focus on the basis of their authority.[5] At first this may seem to have little to do with executive behavior; nevertheless, the source of an executive's authority--charisma, rules, expertise--may influence the way he acts. The activities of executives have also been the subject of much study. Barnard, Gulick, Shartle, Dimock and many others have been concerned with what executives do.[6] Bernstein's book[7] looked closely at Federal executives and Stone's paper[8] looked at government executives in

---

[3]Rensis Likert, New Patterns of Management (New York, 1961) summarizes much of this work. The book contains an extensive bibliography.

[4]Though rather different methodologically from either Ohio State or Michigan work (which of course are different from each other) the contributions of Chris Argyris can also be put in the category of leadership studies of executives. See especially his Executive Leadership (New York, 1952) and also his more recent Interpersonal Competence and Organizational Effectiveness (Homewood, Ill., 1962).

[5]A book that looks closely at this is Victor Thompson, Modern Organization (New York, 1961). See also Robert Presthus, "Authority in Organizations," Public Administration Review, 20 (1960), pp. 85-91; Morris Janowitz, op. cit.; Warren G. Bennis, "Leadership Theory and Administrative Behavior: The Problem of Authority," Administrative Science Quarterly, 4 (1959), pp. 260-301. Terrence K. Hopkins, "Bureaucratic Authority," in Amitai Etzioni (ed.), Complex Organizations (New York, 1961), pp. 82-98.

[6]Chester I. Barnard, The Functions of the Executive (Cambridge, 1956); Luther Gulick, "Notes on the Theory of Organization," in Gulick and L. Urwick (eds.), Papers on the Science of Administration (New York, 1937), pp. 3-45; Shartle, Executive Performance, op. cit.; Marshall E. Dimock, The Executive in Action (New York, 1945).

[7]Marver H. Bernstein, The Job of the Federal Executive (Washington, 1958).

[8]Donald C. Stone, "Notes on the Government Executive: His Role and His Methods," in Dwight Waldo (ed.), Ideas and Issues in Public Administration (New York, 1953), pp. 339-354.

general. Numerous books have been devoted mainly to what business executives do and these are of some help in thinking about government executives.[9]

Studies have also been made of the social and personal characteristics and attitudes of executives. While a number of these have been done the most recent and perhaps the best that pertains to government executives is The American Federal Executive by Warner and his associates.[10]

The Study of Leadership

Having now looked briefly at several approaches to the study of executives we can return to the first approach mentioned, the study of leadership. At the start it should be clear that leaders and executives are not necessarily the same. Executives are the heads of organizations and, as Gibb has made clear, leadership and headship are not identical.[11] Neither, of course, are they mutually exclusive. Since executives may be leaders many studies of leadership have used populations of executives. Thompson, to be sure, has complained about the assumption that the

---

[9]Sune Carlson, Executive Behavior (Stockholm, 1951); Melvin T. Copeland, The Executive at Work (Cambridge, 1951); Melville Dalton, Men Who Manage (New York, 1959); Edmund P. Learned, David H. Ulrich, and Donald R. Booz, Executive Action (Boston, 1950); Roy Lewis and Rosemary Stewart, The Manager: A New Examination of the English, German and American Executive (New York, 1960). It could go without saying that numerous articles have been devoted to executives. Public Administration Review, Harvard Business Review, and Fortune all have given considerable space to consideration of executives.

[10]W. Lloyd Warner et al., The American Federal Executive (New Haven, 1963). See also Reinhard Bendix, Higher Civil Servants in America (Boulder, 1949). Numerous studies have also been done of the characteristics and background of business executives.

[11]Cecil A. Gibb, "Leadership," in Gardner Lindzey (ed.), Handbook of Social Psychology (Cambridge, 1954), pp. 877-920.

appointed head is a leader.[12] He sees a clear division between leadership and headship; to him they are mutually exclusive. The division, however, may not be so clear as he suggests, and in any case leadership studies of executives have been made. They might more precisely be called studies of the human relations skills of executives and to call them leadership studies may be imprecise and perhaps confusing.

Most if not all of the leadership studies divide leader behavior into two types--autocratic and democratic. The terminology itself shows the influence of group dynamics and human relations.[13] Of course these words are not always used; Stanley Seashore, for example, has used "authoritarian" and "participative."

> In general, there are two basic approaches to the management of an organization--the "participative" approach based upon group decision, mutual discussion of common problems, and shared responsibility, and the "authoritarian" approach based upon strong individual leadership.[14]

This dichotomy can be seen in some of the most significant work on leadership, the work done in the late 1940's and early 1950's by a group of investigators at the Ohio State University. Although much

---

[12]Thompson, op. cit., p. 119.

[13]The most obvious example is Eugene Jennings, The Executive: Autocrat, Bureaucrat, Democrat (New York, 1962). Robert Golembiewski in "Three Styles of Leadership and Their Uses," Personnel, 38 (July- August, 1961), pp. 34-35, suggests that a leader centered pattern of behavior often coincides with an authoritarian personality. R. Tannenbaum and W. H. Schmidt have also commented on the autocratic-democratic split in "How to Choose a Leadership Pattern," Harvard Business Review, 36 (March-April, 1958), pp. 95-101.

[14]Stanley E. Seashore, "Administrative Leadership and Organizational Effectiveness," in Rensis Likert and Samuel P. Hayes, Jr., (eds.), Some Applications of Behavioral Research (Paris, 1957), p. 47.

of their work concerned leadership in small groups some of it dealt specifically with executives and heads of formal organizations.

At the beginning of their investigation of executives, the Ohio State researchers defined nine dimensions of leader behavior. Their list, taken from Shartle, was as follows.[15]

> Initiation--the frequency with which a leader originates, facilitates, or resists new ideas and new practices.
> Membership--the frequency with which a leader mixes with the group, stresses informal interaction between himself and members, or interchanges personal services with members.
> Representation--the frequency with which a leader defends his group against attack, advances the interests of his group, and acts in behalf of his group.
> Organization--the frequency with which a leader defines or structures his own work, the work of other members, or the relationships among members in the performance of their work.
> Domination--the frequency with which the leader restricts the behavior of individuals or the group in action, decision making, or expression of opinion.
> Communication--the freqency with which a leader provides information to members, seeks information from them, facilitates exchange of information or shows awareness of affairs pertaining to the group.
> Recognition--the frequency with which a leader engages in behavior which expresses approval or disapproval of the behavior of group members.
> Production--the frequency with which a leader sets levels of effort of achievement or prods members for greater effort achievement.

Statistical analysis of 357 completed leader behavior description instruments indicated that many of these dimensions were related to one another. Consequently, the nine dimensions were reduced to three.

> A maintenance of membership factor--behavior that increases a leader's acceptability to the group.
>
> Objectivity attainment--behavior high in the production and organization dimensions.

---

[15]Shartle, Executive Performance, op. cit., pp. 116-123. See also John K. Hemphill and Alvin E. Coons, "Development of the Leader Behavior Description Questionnaire," in Stogdill and Coons, op. cit., pp. 6-38.

> Group interaction facilitation--behavior or acts stressing the mechanics of effective interaction of group members.

More research reduced these three dimensions to two--consideration and initiating. Shartle noted that these two dimensions, which are quite similar to the first two of the three noted above, are sometimes referred to as the "human relations" and the "get the work out" dimensions. The relationship between these dimensions and the participative and authoritarian patterns need not be labored.[16]

Closely related to the study and description of leadership is the study of the relationship between leader behavior and situation. Early in the Ohio State studies Stogdill and Shartle published their article, "Methods for Determining Patterns of Leadership Behavior in Relation to Organization Structure and Objectives." Here they argued that leadership must be studied "as a relationship between persons, and as an aspect of organizational activities, structures, and goals."[17] From another point of view other writers, also concerned with the situation, have argued that the pattern of behavior an executive chooses should be governed by the kind of enterprise he is managing.[18]

Probably most students would agree that the situation affects the behavior of a leader, but Alex Bavelas has gone further and suggested that the situation affects who will become a leader. In an article dealing with leadership and its situation he wrote that "almost

---

[16]The dimensions are also related to the people-production dichotomy. See Daniel Katz, N. Maccoby, and Nancy Morse, Productivity, Supervision, and Morale in an Office Situation, Part I (Ann Arbor, 1950).

[17]Stogdill and Shartle, op. cit., p. 286.

[18]See for example Tannenbaum and Schmidt, op. cit. and also Golembiewski, op. cit. Harold J. Leavitt, "Unhuman Organization," Harvard Business Review, 40 (July-August,1962), pp. 90-98 also calls attention to the importance of the situation.

any member of a group may become its leader under circumstances that enable him to perform the required functions of leadership..."[19] He also noted that because of differences in situation the abilities that may help a man rise to the top of an organization may prove a "positive detriment" at the top.[20]

Although the preceding paragraphs only skim the relevant research it is clear that much attention has been given to the split between democratic, people oriented, participative leaders and autocratic, authoritarian, production oriented leaders. Of course, executive behavior may not be so clearly classifiable as these types suggest. Seashore has noted that consideration and initiation are independent of each other and that a person might be high on one and either high or low on the other.[21] Certainly an executive might favor both people and production, but just as certainly there is much room for variation in emphasis.

Executives and Authority

One portion of the literature that deals with executives examines the bases of their authority and the consequences that flow from various bases. At first thought executive authority would seem to rest on a legal base. In part it does, of course. But some writers suggest that charismatic authority may also be important. As Blau and Scott have pointed out, "The narrow scope of formal authority induces management, in the interest of effective operations as well as in its

---

[19]Alex Bavelas, "Leadership: Man and Function," Administrative Science Quarterly, 4 (1960), p. 494.

[20]Ibid.

[21]Seashore, op. cit., p. 16.

self-interest, to seek to widen the sphere of its influence over employees beyond the controlling power that rests on the legal contract or on formal sanctions."[22] Much of the literature, as they point out, stresses the importance of inspiring members to identify with the goals of the organization and to pursue these goals with the best of their abilities. And they insist, "Executive leadership evidently involves exerting influences that go far beyond the confines of the legal contract..."[23]

Chester Barnard and Philip Selznik also emphasize that executive leadership may go beyond the legal contract. Barnard states at length the reasons for leadership and then defines it as "the power of individuals to inspire cooperative personal decision by creating faith; faith in the common understanding, faith in the ultimate satisfaction of personal motives, faith in the integrity of objective authority, faith in the superiority of common purpose as a personal aim of those who partake in it."[24] Selznik approaches the matter differently, but the tenor of his writing seems the same as Barnard's.

> We have argued that policy and administration are interdependent in the special sense that certain areas of organizational activity are peculiarly sensitive to policy matters. Because these areas exist, creative men are needed--more in some circumstances than in others--who know how to transform a neutral body of men into a committed polity. These men are called leaders...[25]

Elsewhere in his book Selznik noted that the institutional leader was "an expert in the promotion and protection of values [emphasis his]."[26]

---

[22]Peter M. Blau and W. Richard Scott, Formal Organizations (San Francisco, 1962), p. 141.

[23]Ibid.

[24]Barnard, op. cit., p. 259.

[25]Philip Selznik, Leadership in Administration (Evanston, 1957), p. 61.

[26]Ibid., p. 28.

The task of the interpersonal leader, whom he distinguished from the institutional leader, was "to smooth the path of human interaction, ease communication, evoke personal devotion and allay anxiety."[27] Probably it does not make much difference whether this analytical distinction is made. Blau and Scott and Barnard appear to leave as one the function that Selznik divides. What is important is that all these writers suggest that executive authority has more than a legal or hierarchical basis.

Some writers neglect charismatic authority and consider only technical or skill based authority and hierarchical authority. Weber, perhaps because he paid no attention to organizations of professionals, paid no attention to skill as a basis of authority. Some recent students, however, have considered the matter. Thompson, for example, has devoted much attention to the relationship between technical specialization and hierarchical organization. He argues that an executive today, even in a professional organization, has almost nothing but hierarchical authority. "At the upper reaches of large bureaucracies the executive job and the hierarchical role become almost synonymous, and as specialization advances they undoubtedly will become completely so."[28] Presthus has noted the same thing. "There is also some evidence that the great size and specialization of modern organizations are forcing a greater reliance upon legitimation by formal role, even in research and educational organizations where legitimation by expertise has been traditional."[29]

---

[27] Ibid., p. 27.

[28] Thompson, op. cit., p. 6.

[29] Presthus, op. cit., p. 88. Bennis has suggested that technical competence is "the main basis of power in a problem-solving organization in contrast to role incumbency and administrative ability in the habit organization." There may be something in what Bennis says, but it is probably closer to the facts to suggest that in a problem solving organization power belongs to those who combine hierarchical position with expert substantive knowledge. See op. cit., p. 300.

Blau and Scott have also commented on the conflict between hierarchy and expertise. Their comments have special relevance for this study.

> An implicit assumption of bureaucratic theory which we have had repeated occasion to question is that hierarchical authority and discipline are compatible with decisions based on expert judgment made in accordance with professional standards. It seems, on the contrary, that there is a conflict between these two conditions. Rigid discipline stifles professional judgments. Conversely, hierarchical authority is weakened by increasing technological complexity in organization with its resulting emphasis on technical expertness for all personnel.[30]

These comments from different writers recall the discussion in Chapter II of managers and experts and the differences between them. Furthermore, Tagiuri's finding that managers, regardless of their background, tended to exhibit managerial values is consistent with Thompson's observations. Thompson notes that "in order to claim 'success' as culturally defined, the specialist must give up his speciality and enter hierarchical competition. A person who chooses this course of action must adopt the values of the managerial group to which he aspires."[31] Thompson is suggesting, in effect, that executives in any particular managerial group, that is the managers in any particular organization, will have similar attitudes and behavior whether or not they have been trained as scientists. He also seems to imply that different managerial groups may have different values. One of the concerns of this study is to explore the amount of homogeneity in managerial groups and to explore also the differences between managerial groups.

The study also examines the question of why the executives being studied obey their superiors. Do they obey because of their expertise,

---

[30]Blau and Scott, op. cit., p. 185.

[31]Thompson, op. cit., p. 110.

their position, or for some other reason? The answer will be directly relevant to the concerns of Thompson and Presthus. We should learn something about the relative importance of expertise and formal position in the legitimation of executive authority and we may learn if the basis of legitimation varies from one organization to another. The inquiry may also indicate the importance of charismatic authority.

Attitudes Toward Authority, the Organization, and Work

The research focusing on executive attitudes toward authority that is most relevant to the present study is that contained in The American Federal Executive. This study reported the results of intensive interviews with 257 federal executives and the results also of the administration to them of TAT protocols. As a result of analyzing this data the researchers reported that executives viewed authority "in a positive way" and that "authority figures are looked up to as persons of eminence and high status."[32] "These executives...have retained strong needs for dependency, seeking sympathetic care and succor from others and especially from authority figures; but always at the same time, striving for autonomy."[33] The researchers also found that the federal executive "has a tendency to react to a situation rather than to structure it himself. This is particularly true when he is confronted with a task calling for individual action."[34]

The findings of Melville Dalton are also of considerable interest and relevance. As a result of his investigations in business firms

---

[32]Warner et al., op. cit., p. 193.

[33]Ibid., p. 194.

[34]Ibid., p. 195.

Dalton felt able to identify two main types of managers.

> On the one hand are the systematizers and routinizers to whom method and procedure are paramount. On the other hand are the adapters and reorganizers who stress ends over means.[35]

Toward the close of his book Dalton changed his terminology and used the words "strong" and "weak" to identify the two types of managers that he had found.[36] The weak were described as hesitating to act without consulting superiors and as taking refuge in clearly formulated rules. They adjusted only slowly to changed regulations and often could not make use of new directives. The strong, on the other hand, were able to tolerate dilemmas. They did not necessarily flee conflict nor did they turn from responsibility in charting new routes. While the weak lost sight of goals to concentrate on procedures the strong tended to be unconcerned with procedure and were accustomed to moving directly toward goals. When necessary strong managers would devise new methods to fit new or unclear situations.[37]

Dalton found that strong managers were most often found in the upper levels of the organizations that he studied. "Typically it is the higherups--quick to change methods, to distinguish minor from major issues, and to compromise on the lesser to preserve the greater, to dress old principles in new symbols--who are among the 'strong.'"[38]

---

[35]Dalton, op. cit., p. 7.

[36]Ibid., pp. 246-248. Dalton, of course, was careful to point out that his types were "only models of tendencies that are overlapped by all practicing executives..."

[37]Dalton's two types seem very similar to the several dichotomies presented in the section on rule following behavior in Chapter II.

[38]Ibid., p. 255. Robert M. Wald and Roy A. Doty in their "The Top Executive--A First Hand Profile," Harvard Business Review 32 (July-August 1954), pp. 45-54, seem to support this. "These top-level executives treated the stresses and strains arising from their business dealings as something natural to be taken in their stride..."

Since the Warner study was of upper level executives one might suppose that there would be a good deal of similarity between the executives they studied and Dalton's strong type. But the reverse seems more the case. This seems surprising, but the description of the environment of the federal executive may explain the situation.

> The system, with its carefully balanced set of structures, obligations, and rewards, demands above all both correctness and a show of deference...Action may be (and often must be) firm and decisive, but it must always be cloaked in a mantle of deference and executed with an air of quietude. To move aggressively, or even noisily, may invite undesirable or even disastrous attention from superordinates, opposite numbers, or the public at large.[39]

The civilian government executive is exposed to conflicting pressures and demands, and the conflict, Warner and his associates suggest, may be summed up by juxtaposing the terms "public servant" and "federal executive."

> In their capacity as public servants these men are called upon to subordinate themselves to the legislative and judicial branches of the government in a relationship in which the legislative branch interprets and codifies the public will; and the judicial branch stands as guardian of the national heritage of liberty and equalitarian justice. In this aspect of their roles, these men must be highly reactive to pressures, must be sensitive to demands, and above all, must be deferential. Strictly within the confines of the role denoted by "public servant," these men are subservient not only to others in government but to the public. Any show of determination may be interpreted as "arrogance" and "dictatorship."
>
> However, the executive role implies a mandate for action and license to perform that action. The mandate cannot be responded to in a purely reactive and passive manner. As the mandate comes to the executive, it is high-level policy to be implemented and executed; and as high-level policy it tends to be broad and general. The executive must accept it, shape it, and put it into operation. In so doing, he is necessarily creative and innovative. The very act of executing policy implies judgment, decision, and action. The executive at every point is called upon to make decisions and alter direction, and in the end his performance is necessarily different in that it is beyond what the original statement required.

---

[39] Warner *et al.*, *op. cit.*, pp. 241-242.

> In a sense, then, the federal executive must conceal his true power. His most decisive and far reaching operations must be cloaked as simple extensions of policy. The overweening power of his license to act must always be expressed as something outside and beyond him. He must appear only as the instrument and vessel of policy.[40]

Considering the environment of the federal executive it is not surprising that executives seem to exhibit some of the characteristics of Dalton's weak type as well as some characteristics of his strong type. Nor would it be surprising if there were executives who could be called strong and others who could be called weak.

The findings of Warner and his associates and of Dalton are related to the findings of Turner and to the bureaucratic orientation analysis of Slesinger. It seems clear that the relationship of rule following behavior to such variables as rank, education, and career identification should be analyzed. An obvious question is whether the executives most prone to deviate from the rules are the highest ranking executives. The answers to this and other questions should develop our knowledge of this aspect of the executive role.

The attitudes of executives toward their organizations and toward their work, as well as toward authority, have also drawn attention. Chester Barnard has written, "The most important single contribution required of the executive, certainly the most universal qualification, is loyalty, domination by the organization personality."[41] Developing this theme, he continued:

> This, as a personal qualification, is known in secular organizations as the quality of "responsibility;" in political organizations as "regularity;" in governmental organizations as "fealty or loyalty;" in religious organizations as "complete submission to the faith and to the hierarchy of objective religious authority."[42]

---

[40] Ibid., pp. 243-244.

[41] Barnard, op. cit., p. 220.

[42] Ibid.

Obviously, what Barnard is talking about may be related to an executive's attitude toward authority, but something else is also involved. Loyalty to the organization and submission to its head do not necessarily go together. Neither must loyalty to the organization and complete submission to its rules necessarily go together.

Dalton analyzed in his investigations not only the strong-weak pattern but also the "emotional ties" of management personnel to their firms.[43] Not surprisingly he found varying degrees of identification and he suggested several reasons for the variation. An individual's identification with an organization, he suggested, may vary with his success or failure in achieving his expectations and goals. Some of the unattached may be indifferent or disillusioned. Some who once identified with the organization may have been passed over for promotion and lost interest as a result. Differences in age and ability may also influence attachment. In summary, Dalton pointed out that among management personnel there are various degrees of commitment: "Some are devoted career members, some are lukewarm toward the firm, while some hardly identify at all."[44]

Dalton's work suggests that in thinking about career identification it may be important to inquire into commitment or identification with a particular organization. Since Dalton found that managers at the upper levels were the most likely to identify with their organization we might also hypothesize that the executives in this study would tend to identify not only with the public service but with their particular organizations. We might also hypothesize, following Dalton, that

---

[43]Dalton, op. cit., pp. 54-55.

[44]Ibid., p. 55.

commitment or identification is related to job satisfaction, as well as to other variables already mentioned in the discussion of career identification.

Work involvement is probably not the same as identification with the organization, but perhaps it is related to it. Work involvement means devotion to work, interest in work. Time worked is commonly used as an indicator of work involvement. No studies seem to have been done of how much government executives work, but studies of business executives are suggestive. In one study of 29 executives who were defined as "highly successful corporation officers" it was found that "all but one of the group felt that they had always been more interested in their work than had most of the other individuals with whom they associated in business."[45] The same study also reported that when they were asked "why they worked so hard when they did not have to in order to earn a decent living, the executives usually answered either that they derived a sense of accomplishment from their efforts or that they enjoyed their work more than anything else they did."[46] William H. Whyte's report, "How Hard Do Executives Work?", also provides data on the work involvement of executives. He reports that the 221 managers from whom he obtained information work about 60 hours a week.[47] Although the executives reported that wives, doctors, and friends reported overwork they themselves disagreed.

The evidence from business suggests that the senior executives in this study may spend considerably more than forty hours a week working. It seems important to note, however, that if executives do

---

[45]Wald and Doty, op. cit., p. 49.

[46]Ibid.

[47]William H. Whyte, Jr., "How Hard Do Executives Work?" in Editors of Fortune, The Executive Life (New York, 1956), p. 65. For another time study see "1700 Top Executives," Fortune, 60 (November 1959), p. 138.

work that is largely routine, programmed in Simon's terms, then their work week may come closer to 40 hours or the required minimum. Harold Wilensky has suggested that if a task offers little variety and if there is little discretion in method, pace, or schedule then the man doing it may not be involved, he may segregate his work from his life.[48] Perhaps this is another way of saying that executives may be more involved in their work if they regard it as interesting or challenging.

The Functions of Executives

No discussion of research about executives would be complete if what can be called the functional approach were not mentioned. What executives do has been too frequently studied to permit omission. Numerous rather popular books have attempted to describe what executives do and books based both on research and experience have contributed to our knowledge. Most of the books have been written about business, not government executives, but some of the literature is instructive.

A frequent result of a study of functions is a lengthy list of the things that executives do. From almost any of them we can learn that executives plan and coordinate and communicate and meet the public and do a number of other things. Sometimes the list is refined so that we can find out how much time an executive spends doing what. Sune Carlson's study was one of the first of these. Recently John Corson carried on a time study of federal executives. Secretaries were interviewed and calendars were examined and in the end we will be told that executives spend so many hours doing this and so many doing that.

---

[48]Harold L. Wilensky, "Work, Careers, and Social Integration," International Social Science Journal, 12 (1960), p. 559.

A close look at a few sources will suffice for setting out the general tenor of the functional approach.[49] We can start by looking at POSDCORB.[50] Luther Gulick invented this unpronounceable word to call attention to the various functional elements of the work of the chief executive. With POSDCORB on the tip of the tongue one can remember that an executive plans, organizes, staffs, directs, co-ordinates, reports, and budgets. Chester Barnard approached the subject of executive functions with somewhat more sophistication. According to him the essential executive functions are:

> First, to provide the system of communication; second, to promote the securing of essential efforts; and third, to formulate and define purpose.[51]

Of course, Barnard enlarged on this statement. He noted that the need for a definite system of communication creates the first task of the organizer.[52] The second function, securing personal services, breaks down, he said, into recruiting and obtaining services from the people recruited. On the subject of getting effort from the personnel in the organization Barnard wrote:

> As executive functions they may be distinguished as the maintenance of morale, the maintenance of the scheme of inducements, the maintenance of the schemes of deterrents, supervision and control, inspection, education, and training.[53]

---

[49]Thompson, op. cit., p. 85, has suggested that "to seek the 'functions of the executive' is theoretically absurd, although it is theoretically proper to hypothesize about the function of the superordinate role in relation to organizations..." Absurd or not, many writers have equated the enumeration of executive activities with executive functions.

[50]Gulick, op. cit., p. 13.

[51]Barnard, op. cit., p. 217.

[52]Ibid.

[53]Ibid., p. 231.

The third executive function that Barnard noted was the formulation and definition of purposes, objectives, and ends of the organization.

> It is more apparent here than with other executive functions that it is an entire executive organization that formulates, redefines, breaks into details, and decides on the innumerable simultaneous and progressive actions that are the stream of syntheses constituting purpose of action. No single executive can under any conditions accomplish this function alone, but only that part of it which relates to his position in the executive organization.[54]

Much of the work since the 1930's has only enlarged and refined the work of Gulick and Barnard. In 1956 Shartle listed 14 activities which closely resemble POSDCORB and the functions Barnard had posited as executive. Simply listed without the discussion that was devoted to each activity Shartle's list included:

1. Inspection of the Organization
2. Investigation and Research
3. Planning
4. Preparation of Procedures and Methods
5. Co-ordination
6. Evaluation
7. Interpretation of Plans and Procedures
8. Supervision of Technical Operations
9. Personnel Activities
10. Public Relations
11. Professional Consultation
12. Negotiations
13. Scheduling, Routing, and Dispatching
14. Technical and Professional Operations[55]

---

[54] Ibid.

[55] Shartle, op. cit., pp. 83-84. This list may be compared with one published in The Executive Life, op. cit., p. 21. After surveying 1100 executives ten categories of executive action were developed: 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; 9) Exercising business judgment, performing a speciality; 10) Dealing with the public.

Shartle recognized, of course, that some executives will engage in some activities and some in others. He recognized that the emphasis given to different activities would differ and he also noted that even executives with ostensibly the same duties might have different work patterns. One of his research findings is illustrative of the variation that can exist.

> When work patterns of seven heads were compared with the patterns of their principal assistants, the head who spent the most time in public relations had the assistant who spent the least of the seven in the activity; and the head who spent the least in public relations had an assistant who spent the most time in this work.[56]

Barnard and Shartle drew heavily on the world of business. Sources describing the activities of the government executive are not numerous, but Marver Bernstein has included in The Job of the Federal Executive the remarks of a civil service bureau chief which are at least as informative as any list would be.

> I would like to endorse the view that there is more difference among career jobs than there is between my career job and that of my immediate political boss, an assistant secretary. The assistant secretary and I deal with the same people and do many of the same sorts of things, but the task of the assistant secretary is to keep me from losing touch with the mass of the people, from becoming too ingrown. The political executive provides that sensitivity to the public pulse. He and I approach our similar jobs from different angles. If we can learn to talk each other's language, we make a good team. Now, as to distribution of time, three fourths of it is spent not in internal activities but in dealing with people outside my own bureau. If I had to guess, I would estimate that most of my time is spent in dealing with policies, controls, and complaints. I probably have more direct contact with members of Congress than most other bureau chiefs. These contacts have been built up over many years, and Congress fully expects the bureau chief to maintain that tradition.[57]

Bernstein also reported that a former government executive recalled that when he was new on the job a successful bureau chief

---

[56]Shartle, op. cit., p. 88.

[57]Bernstein, op. cit., p. 49.

told him to get to know Congressmen. This bureau chief was also remembered as having "had a gift for keeping in touch with the people in the field installations," and it was said that he had "devoted a fair amount of time to developing support and understanding for his programs among opinion groups in the country: churches, service clubs, various civic organizations."[58]

Although it might have been possible to do so the various activities of the executives in the universe of this study have not been analyzed. No lists have been prepared. One reason for this is that perhaps not much would be gained by finding again that executives communicate, coordinate, and supervise. The discussion in this section, however, does suggest inquiry into the relationship between executive functions and several of the variables that have already been mentioned. Although there may be many ways to approach such inquiry one way is to consider functional specialization, rather than specific function. What is the relationship between functional specialization and career identification, rule following behavior, work involvement? This study takes a limited look at this question by dividing the universe into two groups--administrative executives or functional specialists, i.e., personnel officers, budget officers, organization and management officers, and the remaining executives, bureau chiefs, office chiefs, division chiefs.

If we view administrative executives as specialists or professionals the literature suggests several hypotheses. We can hypothesize that, as professionals, they will not be committed to their organizations. Because their work may be more routine than that of other executives,

---

[58] Ibid., pp. 53-54.

they may not be so involved in their work as other executives. Even though he may be viewed as a specialist or professional, the administrative executive may adhere more closely to rules and regulations than other executives. Moreover, the administrative executives may obey their superiors because of their hierarchical position. A personnel officer would probably not obey a bureau chief because of the chief's technical competence in personnel matters. In the chapters that follow these and other hypotheses will be examined.

CHAPTER IV

HYPOTHESES TO GUIDE THE ANALYSIS

The last two chapters have briefly reviewed research in several different but related areas. Research on career identification and rule following behavior, on leadership patterns and bases of authority, on attitudes and functions, has been mentioned. Throughout the discussion questions have been raised, relationships between variables have been suggested. It is appropriate now to set out explicitly the questions to be asked of the data, the hypotheses to be explored.

As will be clear the hypotheses have been suggested mainly by statements in the literature, and the literature, as we have seen, is made up of disparate parts. Ideally, perhaps, hypotheses are derived from existing theory, they are tested, and the theory stands or is revised. But there is no general theory about executives. The findings of past research are a source of hypotheses, but the findings often suggest contradictory hypotheses. The hypotheses that follow are thus in many cases only hunches and even guesses. Their main purpose is to guide the analysis. They make clear with what variables and relationships the study is concerned. They make clear the questions to be asked.

Career Identification

Research findings examined earlier suggest that executives identfy with their organizations. The upward mobiles in The Organizational

Society identified with their organizations, and the managers that Hower and Orth studied did also. The executives in this study may tend also to identify with their organizations. They may, in other words, be locals or institutionalists.[1]

But if we find that executives generally tend to be institutionalists we may also find that this tendency is more pronounced among certain groups of executives. It may be that executives with higher rank will be more likely to be institutionalists. Kornhauser was earlier quoted as saying, "The higher the position, the more controlling are the norms of management and the organization. . ."[2] If to be an institutionalist is a management norm, then we may expect higher ranking executives to be more affected by the norm. It may also be that higher ranking executives have had more time to be socialized, they have been exposed to norms longer. This suggests that an executive of high rank who entered the organization laterally need not fit the pattern of high ranking executives who gained rank in the organization.

Assuming that length of exposure to organization norms is important and assuming that older executives have been in their organizations longer than younger executives, we might expect that older executives would be institutionalists. We might also expect that the longer an executive has served in his organization the more likely it would be for him to be an institutionalist.

Some subgroups of executives may be less likely than other

---

[1]The term "institutionalist" will here be used in a more restricted sense than either Marvick or Slesinger used it. Rather than denoting only identification with the public service it here will mean identification with a particular organization as well as the public service.

[2]Supra, p. 20.

executives to be institutionalists. Executives who are dissatisfied with their jobs may be less likely to identify with their organizations. Dalton found this to be so in his research. Dissatisfaction is, of course, not the only reason for not identifying with the organization. Executives with a Ph.D. degree may be more likely to be professionals than institutionalists, while executives with only a bachelor's degree may be more likely to be institutionalists. Administrative executives may tend not to be institutionalists. Since their skills are readily transferable to other government agencies they may not identify with their organizations and may tend to identify with their speciality.

These several propositions are summarized below.

1. The executives in the five organizations will tend to be institutionalists.

    a. The higher the rank of an executive the more likely it is that he will be an institutionalist.

    b. The older an executive is the more likely it is that he will be an institutionalist.

    c. The longer an executive has served in his organization the more likely it is that he will be an institutionalist.

    d. Institutionalists will be more likely than other executives to be satisfied with their job.

    e. The less education an executive has the more likely it is that he will be an institutionalist.

    f. Administrative executives will not tend to be institutionalists.

Work Involvement

The little research that has been done on the subject of how much or how long executives work suggests that the executives in this study will be highly involved in their work, that they will work long hours. There seems to be no reason to think that involvement will be related to career identification. Executives are as likely to work long

and hard because of their professional interests as because of their commitment to their organization. This is not to say, however, that all executives will be equally involved. Although work involvement may differ for innumerable reasons, a few specific ones can be suggested.

Dalton's research showed that commitment tended to vary with an executive's success or failure in achieving expectations and goals. This suggests that involvement may tend to increase with rank but decrease if rank remains the same as the executive grows older. This assumes, of course, that an executive would like to advance. Dalton's research also suggests that job satisfaction will be positively related to work involvement. Although among satisfied executives there may be variation in work involvement we might expect to find that satisfied executives tend to be more involved than dissatisfied executives. We may also find that executives who feel challenged by their work are more involved in it. On the other hand, executives who work only 40 hours a week may not find their work challenging.

Between operating executives and administrative executives there may be no difference on the work involvement dimension. It seems unwise, however, to let the possibility of difference go unexamined. For analytical purposes we may hypothesize that administrative executives tend to be less involved than other executives.

These propositions are summarized below.

2. The executives in the five organizations will tend to be highly involved in their work.

    a. Whether an executive is an institutionalist or a specialist will not be related to his involvement.

    b. Involvement will tend to increase with rank but decrease as age increases if rank is held constant.

    c. Job satisfaction will be positively related to work involvement.

d. Executives who feel their work is challenging will tend to be more involved in it than executives who do not feel challenged.

e. The administrative executives will tend to be less involved in their work than other executives.

Rule Following Behavior

Considerable research shows that bureaucratization varies in different organizations. Since rule following is one aspect of bureaucratization we may expect that executives in different organizations may tend to exhibit different patterns of rule following behavior. In some organizations executives may always obey regulations; in other organizations executives may frequently deviate from regulations. If we assume, however, that executives tend to conform to organizational norms then we can hypothesize that in any organization the rule following behavior patterns of executives will tend to be similar.

Whether or not there is any relationship or association between rule following behavior and career identification may be a matter of some interest, but it is not a matter about which much is known. Slesinger has said that career identification and orientation to bureaucratic structures are independent dimensions and that there is no reason for supposing that institutionalists will be any more inclined to obey rules and regulations than experts will. Presthus noted that the expert resists bureaucratic rules and supervision and that the manager does not. Hower and Orth noted that in the management culture, conformity to established policies and procedures is valued and that the expert culture contrasts with this. These writers seem to be suggesting that career identification and rule following behavior are not independent and that professionals may tend to deviate from rules and regulations and institutionalists may tend to obey rules and regulations. This

will be the working hypothesis in this study. A related hypothesis is that executives with more education will tend to deviate from rules and regulations and executives with less education will tend to adhere to them.

During the interviews the complaint occasionally was made that administrative executives were more adept in applying rules than in finding ways to do things. It was said of one administrative executive that he would make of the organization "a drill field."[3] These complaints suggest that operating executives will deviate from rules and regulations more often than will administrative executives.

This discussion can be summarized in the following propositions.

3. Executives in the same organization will tend to exhibit similar rule following behavior, but executives in different organizations may tend to exhibit different rule following behavior.

    a. Institutionalists will tend to obey rules and regulations and professionals will tend to deviate from rules and regulations.

    b. Executives with more education will deviate from rules and regulations more than will executives with less education.

    c. In all organizations executives responsible for goal oriented programs will deviate from rules and regulations more than will administrative executives.

Reason for Obeying

Both Thompson and Presthus suggest that the executives in professional organizations will tend to obey their superiors because of their position in the hierarchy rather than because of their technical expertise. This tendency, however, may be stronger in the case of institutionalists than professionals. Since institutionalists identify with the organization they may think a superior's position in the organization an important if not critical reason for obeying him.

---

[3]Interview No. 42.

Of all executives those that identify as professionals may be the most likely to think competence is the most important reason for following the instructions of a superior. If this is so then we may also expect to find that executives with more education will tend to think technical expertise is a more important reason for obeying their superior, and executives with less education may think it a less important reason.

Administrative executives may tend to think that hierarchical position is the most important reason for obeying their superiors. Administrative executives are likely to have superiors who have completely different specialities and who can therefore only rely on the authority of their position.

Four propositions can summarize this brief discussion.

4. The executives in the five organizations will tend to obey superiors because of their superior position in the organizational hierarchy rather than for reasons of technical competence.

    a. A larger proportion of institutionalists than other executives will tend to think that the hierarchical position of their superior is the most important reason for obeying him.

    b. Executives with more education will tend to think that the hierarchical position of their superior is a less important reason for obeying him than will executives with less education.

    c. Administrative executives will tend to think that hierarchical position is a more important reason for obeying their superior than other executives will think it is.

The analysis in the chapters that follow will be guided by, but not necessarily limited to, the propositions that have been suggested. Before beginning the analysis, the sites and the fieldwork will be described, and the characteristics of the population will be set out.

CHAPTER V

THE SOURCES OF DATA
THE SITES AND THE POPULATION

Research in Five Organizations

The sources of data used in this study were only briefly mentioned in the preface. It is necessary, therefore, to describe now in more detail the research projects from which this study developed. Late in 1962 the Survey Research Center at the University of Michigan prepared and submitted a research proposal for "Studies toward the Assessment and Improvement of Performance in Certain Bureaus in the Department of _____." The purpose of the proposal was set out in its introduction.

> This proposal outlines a program of coordinated research and research utilization to be carried out jointly by the Survey Research Center and the five bureaus and offices under the _____. The objective is to help the members of these five agencies, first, to develop within these agencies an increased understanding of the organizational problems affecting their performance and the second, to develop and bring to bear on these problems the individual and organizational resources necessary for the effective introduction of needed changes.

Among the activities proposed were exploratory interviews with personnel in upper level positions and the development and administration of a questionnaire to about 200 occupants of middle and higher level positions. The proposal noted that data collection instruments "would cover various organizational characteristics known to affect performance and change, perceptions of organizational objectives, processes, problem

areas, and potential for improvement. Included would be related individual characteristics such as career perspectives, modes of executive role behavior, value orientations, attitudes, job stress, and so on." The proposal also described other activities to be carried out through the course of the project, but since these do not bear on the present study they need not be described. The research proposal was accepted and the project staff shortly began exploratory interviews in order to learn as much as possible about the organizations and their personnel before constructing a formal data collection instrument.

Data Collection and Processing

After the project staff members had familiarized themselves with the organizations and their personnel by means of exploratory interviews as well as by perusal of documents, a preliminary questionnaire was constructed and pretested early in 1963. The original instrument contained 188 items dealing with many variables. The pretest respondents were interviewed to obtain their reactions, to find out what questions were unclear, and to find out what questions they could not answer or did not understand. Examination of the pretest responses resulted in some items being dropped and others being rewritten; the final questionnaire consisted of 165 items. A total of 1412 persons was selected to complete the questionnaire. Fifty-five executives in top management positions were asked to fill out questionnaires. At the lower levels, below division chief, a random sample of professional employees was selected in each agency. In addition, five randomly selected non-supervisors in randomly selected subunits in three of the agencies filled out the questionnaire.

The questionnaire was administered by members of the field staff of the Survey Research Center to respondents in the Washington area. It was administered by mail to respondents in the field. In Washington two means of administration were used. Lower level personnel were asked to gather in groups and the questionnaire was filled out by them in the groups. Upper level personnel (including the 55 senior executives) were called on at their offices and given the questionnaire. They were asked to fill it out at their desks. A return mail envelope was supplied. In all administrations confidentiality was emphasized. Of the senior executives with which this study is concerned, 54 out of 55 completed questionnaires.[1] (See Appendix B for questionnaire items.)

These questionnaires filled out by the executives provide the main source of data for this study, but the study also makes use of data obtained in interviews with the executives. The interviews were the result of a separate but related study being carried out in the same organizations. This project, also a Survey Research Center project, started as an exploratory inquiry into the characteristics of public executives. It was decided early that much might be gained by close co-operation between it and the study being carried on in the

---

[1]The completed questionnaires were returned to the Survey Research Center where they were coded, prepared for machine processing and tabulated. Since the questionnaire had been largely precoded, coding presented no particular difficulties. Coding was done by members of the coding section of the Survey Research Center. They were trained by members of the project staff who also coded and were always available to answer questions as they arose. After coding the data in the questionnaires were punched into IBM cards. For the purposes of this study the data obtained from the executives were sorted from the other data and printed. Then, because of the relatively small number of executives and for ressons of convenience, the data were hand tallied.

five government agencies. But, while it was evident that much could be learned about the executives by means of the questionnaire, it was also clear that some things of interest could not. Consequently the 55 executives were interviewed as well. The interviews, carried out in most cases after the executives had completed the questionnaire, were conducted by members of the executive research project staff as well as by members of the Survey Research Center field staff.[2] For this study the data from the interviews have not been content analyzed and quantified, but information from the interviews has been used whenever it helped to add meaning to the data obtained by the questionnaires. (See Appendix C for interview items.)

As the foregoing discussion makes clear the data used in this study were not collected specifically for it. Obviously when data are collected for one purpose they may not be entirely satisfactory for another. The disadvantages of using available data in this study, however, are balanced by several advantages. The problems of access and data collection are solved, and these are not minor problems in a population (high-ranking federal civil servants) that is increasingly burdened with questionnaires and interviews. Analysis of available data is also an economical way to explore hypotheses and formulate new ones.

The Sites of the Study

Since confidentiality was promised to the respondents neither the names of the organizations nor their specific activities can be

---

[2]With only a few exceptions a tape recorder was used to preserve the interview. In the instances where taping was not possible detailed notes were taken.

revealed.[3] Some general information about the organizations can, of course, be set out. There is, however, some question about what information is necessary. Any description of research sites is faced with the problem of at once including information that will help the reader understand the research and excluding information that is not relevant, however interesting it may be. As a solution some pertinent information will be given here and additional information will be set out later as it becomes useful.[4]

All of the organizations may be thought of as "old line agencies." Although they are concerned with science and technology they are not defense or space agencies. At the time the data were collected all but one were headed by chiefs of long tenure. The head of the excepted organization had a political as well as a presidential appointment. He had come in with the Kennedy administration.

Recently the five organizations had been brought together under the jurisdiction of a single assistant secretary. At the time of the data collection the organizations were in some turmoil, partially because of the new assistant secretary and partially because of internal circumstances--although these were not altogether unrelated to the arrival of the assistant secretary. One organization had just had a management survey and was in the midst of reorganization. Another organization was

---

[3] If one is writing about city or county or even state organizations then the mission and activities of the organizations can be described in some detail and only the location needs to be concealed to preserve confidentiality. Such is not the case at the federal level. At this level, to describe mission and activities is in fact to name the organization. If one says that the mission of an organization is to protect the President of the United States, then in fact one has named the Secret Service and specifically the White House detail.

[4] The material presented in the following pages (63-70) comes from the exploratory interviews, from the interviews with the 55 executives, and from a perusal of data gathered in the survey. The discussion is not meant to describe the organizations rigorously but to clothe them with some life.

about to be reorganized. One was losing its chief. One was planning to move. In general the organizations were in a state of flux. How much this affected the perceptions of the respondents it is not possible to say.

In all the organizations the head has a deputy and in four of them there are assistant or associate heads as well. All of the organizations are divided into subject or functional areas headed by an office or division head.

Although the five organizations are under the jurisdiction of a single assistant secretary in one department they illustrate a truism of American government--that a department is often little more than a holding company and that the bureaus it holds may not only be quite varied but also have apparently little relationship to the ostensible purpose of the department. One third of the executives in these five bureaus thought that there was no good reason for their bureau to be in the department that it was in, other than that it had to be somewhere. They felt often that the department had been neither sympathetic or understanding. Until recently their department had paid little attention to science. Some of the executives (nine percent) would be happier if their bureaus were not in the department. Many (75 percent) felt, however, that their lot might improve now that they had been brought together under a single assistant secretary.

The problems of these bureaus covered many policy areas. Like all executives these executives complained of budget and manpower problems. Almost all the executives said that in the past they had not had enough money and some complained of the irrationality of the appropriation process and the lack of reason in budget cuts. Many of the

executives complained about lack of space. Even in Washington, personnel are scattered about the metropolitan area. Trained manpower is scarce and to some extent recruitment is hindered by civil service regulations.[5]

What specifically can be said about each of the organizations? Organization One is by far the smallest of the five organizations. It has only 180 employees. Not only is it small, it is not well-known--even to its potential clientele. Several better known agencies--NASA, the Department of Defense, the Library of Congress--compete with it for funds and personnel. These agencies are often able to offer higher pay for approximately the same type of work. Moreover, until recently Organization One had received little support from the department.

The organization is composed of several divisions that are not closely knit together. It is a small agency but not particularly cohesive. Not only is there some distance between the divisions, but there seems also to be friction between professional and non-professional employees and also between operating and staff employees. The lack of cohesiveness is also reflected in the occasional lack of communication. The chief of the largest division has complained of being by-passed by superiors that communicate directly with his subordinates.

Organization Two is much larger and better known than Organization One. It has some 3800 employees, 2500 of whom are located in Washington and 1300 in a single field location. Fifty percent of the employees are professionals with physicists, chemists, engineers, and mathematicians in that order making up the bulk of the professional staff.

---

[5]It is hard, for example, to hire a mathematical linguist. It is impossible to hire a Swede or Swiss; Sweden and Switzerland are not allied countries.

Despite the large number of scientists, one of the characteristics of this organization is the existence of some disagreement about its mission. One group of scientists want the organization to be more active in research and development. They would be happy in pure research and are reluctant to be limited to the ostensible mission of the bureau. Another group would be much more practical in their endeavors--they would take the name of the bureau seriously.

One friction point in this organization (it exists to some extent in all the organizations) exists between scientists and administrators. In particular there has been friction created not so much by administrators within the bureau as by administrators outside the bureau. There has been much commotion about civil service rules requiring an eight hour day, because the scientists do not want to be bound either by the clock or by such rules. They would like to feel free to leave 15 minutes early or leave an hour later and to come in later in the morning. But if there is friction between scientists and administrators, it is also true that scientists to a very large extent run Organization Two. The bureau chief and his deputy are both scientists, as are the division chiefs. It should also be pointed out that in this organization much of the operation of the bureau is in the hands of the division chiefs. In this respect it differs markedly from Organizations Four and Five.

Organization Three employs about 2500 people, all in Washington. About half of the personnel are professionally trained, as engineers usually and often also as lawyers. Organization Three can be accurately described as an organization in turmoil. It is several years behind in its work and the new head (new in the Kennedy administration) instituted a management survey of the organization which resulted in a sweeping

reorganization. It was hoped that the reorganization would help solve the backlog problem. This problem is made more serious by a substantial personnel turnover; it is approximately 20 percent annually. Because it is not a prestigious organization for which to work, Organization Three has had recruiting difficulties also.

Organization Three is run primarily by its director and secondarily by a small group of close associates. In Organization Three the split between management and employee is clearer than in any of the other organizations studied and employee unions are the strongest. One reason for this split (perhaps a result of it) is the work measurement system in this organization. The comments of one executive hint at the dimensions of this problem.

> Well, for instance there's a very pronounced resentment among many of them [employees] that we shouldn't undertake to tell them how much work they ought to do... As I say, getting the work out of them is our greatest problem, and we've felt right along that you've got to come down practically to assigning a quota to each man as to what he's going to do. That's a nasty word here in the office, and to a considerable extent here in government. You can't downgrade a man for lack of production by itself under the civil service regulations. If the quality of his work is good it doesn't make any difference how much he's doing. We have found ways to get around that to a certain extent. We figure if a man's not producing he needs more supervision to find out why he's not producing, and that has the effect of lowering his grade or keeping him from going up. Now recently we've taken to assigning a definite production quota to each man with the theory that that is what he ought to do in the absence of abnormal conditions, and if he doesn't do it he's supposed to explain why, and if he can't explain then we're not going to promote him at the very least.[6]

The personnel problems of Organization Three are unique among the five bureaus. But it has other problems that are common among the five. Like all the organizations it feels that it has been short changed. According

---

[6]Interview No. 34.

to one executive, Organizations Three "has been frightfully starved for some years, and the system is breaking down now from that and other causes. The main problem is that attempts to repair the system have required money which has not been forthcoming."[7] Like the other organizations, Organization Three has a mission on which there is not complete agreement. It has had in the past a legal orientation, but the director and others have been trying to give it a scientific focus.

Organization Four has 2500 employees although the staff is subject to seasonal variation with somewhat more employees in the summer than in the winter. About 20 percent of the personnel are professionally trained. The headquarters and staff services of the organization are located in Washington and support an extensive field organization. It is a widespread organization, but it is also a highly centralized organization and has a uniformed service. Somewhat less than 200 of the total number of personnel hold commissions, but until recently all the key jobs were held by commissioned personnel; even now the director, deputy director, and most of the assistant directors are commissioned. Lately, however, civilians have been appointed to responsible positions (the director of research is a civilian). In addition, some decentralization is taking place, in favor of regionalization.

Organization Four may suffer some from competition with other government agencies. Funds and personnel that might go to Organization Four frequently go to a competing organization. To some extent this may be related to the lack of agreement in Organization Four on the importance of research.

---

[7]Interview No. 28.

Organization Five has approximately 6000 employees. Some 1300 work in the Washington area and the rest are in the field; there are 300 field offices. Like Organization Four, Organization Five appears also highly centralized; in recent years some moves to decentralize it have been made. Still, Washington largely controls the field.

This organization, like the others mentioned, is becoming more involved in scientific research. Like the others it has been obviously affected by the post Sputnik emphasis on science and research and has had to alter its emphases and develop new programs. Like the other four organizations, and perhaps more clearly than the others, Organization Five has been going through a slow but quite definite metamorphosis. Like the other organizations, Organization Five competes (and, to be sure, co-operates) with many other government agencies providing essentially the same services and utilizing the same skills. It competes for money and personnel; it competes also for programs. Who will get what, is an important question in Organization Five.

Interviewing and talking with executives in Organization Five one gets the impression that the morale is high and that at least in Washington there are few personnel problems. To be sure Organization Five lacks funds and space and has difficulty finding enough qualified personnel. It must on occasion find ways around civil service rules. Still, Organization Five contrasts starkly with Organization Three. The professional turnover in Organization Five is about four percent and for all personnel turnover is only eight percent, much lower than the turnover rate for Organization Three. The organization contrasts also with Organization Four. Perhaps it is inevitable that uniformed services contrast with civilian services; in any event Organization Four seemed to be much

more autocratic, or much less democratic, than Organization Five.[8]

Perhaps more than in any of the other organizations the head of Organization Five and the organization are very closely identified. It is perhaps too much to say that the head and the organization are synonymous, but they are very closely linked. In some respects one could think of Hoover and the FBI when one looked at the director of Organization Five.

Some Characteristics of the Executives

The foregoing section described briefly and generally the organizations in which data were collected. This section contains specific data about the executives in the organizations. The data reported in this section are in many respects quite similar to the data reported in The American Federal Executive, and that study collected data on over 10,000 civilian executives. Most of the executives in the present study ranged in age from 45 to 60 years with the largest number between 50 and 55, as Table I shows. The ages of the executives in the Warner-Van Riper study

TABLE 1

AGES OF EXECUTIVES IN THIS STUDY

Age	Number	Percent
to 34.9	0	0
35-39.9	2	4
40-44.9	5	9
45-49.9	11	20
50-54.9	18	33
55-59.9	11	20
60-64.9	6	11
65 & over	1	2
Total	54	99[a]

[a]Percentages will not always equal 100 because of rounding.

[8]This will be developed in the chapter on rule following behavior.

are comparable, although as Table 2 shows the executives in this study may

TABLE 2

AVERAGE AGE BY GRADE OF EXECUTIVES IN WARNER-VAN RIPER STUDY AND THIS STUDY COMPARED[a]

Grade	Average Age Warner-Van Riper Study	This Study
GS-18	52.0	
GS-17	50.4	
GS-16	50.4	
GS-16 and above		53.1
GS-15	49.2	50.5
GS-14	49.9	48.6

[a]Warner et al., op. cit., p. 399 from table 81B, N not given.

be somewhat older. Table 2 also shows, not surprisingly, that the older executives are more senior in rank. Table 3, which shows the mean age by hierarchical rank, also suggests an association between seniority in rank and seniority in age.

TABLE 3

MEAN AGE OF EXECUTIVES BY HIERARCHICAL RANK

Rank	Mean Age
Bureau Chief & Deputy	53.7
Office Chief	53.4
Division Chief	50.5
Section Chief	48.3
Non-supervisor	47.0

The foregoing tables indicate that most of the executives in the present study are high in the organizational hierarchy and have a GS grade of 15 or higher. Table 4 shows that grade and rank are roughly comparable. The most variation seems to occur at the division chief level, but even here it is clear that most division chiefs were at the GS-15 level or higher.

TABLE 4

HIERARCHICAL RANK BY GS GRADE

Rank	GS-16 & over	GS-15	GS-14	Total
Bureau Chief & Deputy	11	1	0	12
Office Chief	15	2	0	17
Division Chief	5	13	2	20
Section Chief	0	3	1	4
Nonsupervisor	0	1	0	1
Total	31	20	3	54

Data obtained from the executives provides considerable information about their careers. More than 80 percent of the executives have worked for the federal government longer than twenty years (Table 5). Almost 40 percent have worked for the federal government longer than thirty years and only about 10 percent have worked for the federal government less than 5 years. Over 50 percent have worked for the same

TABLE 5

LENGTH OF SERVICE IN THE FEDERAL GOVERNMENT

Length of Service	Number	Percent
Less than 1 year	1	2
1 yr.-2 yrs. 11 mths.	0	0
3 yrs.-4yrs. 11 mths.	1	2
5 yrs.- 9 yrs. 11 mths.	3	6
10 yrs.-14 yrs. 11 mths.	1	2
15 yrs.-19 yrs. 11 mths.	4	7
20 yrs.-24 yrs. 11 mths.	13	24
25 yrs.-29 yrs. 11 mths.	10	19
30 yrs. and over	20	37
N/A	1	2
Total	54	101

organization for more than 20 years and over 30 percent have worked for the same organization longer than 30 years (Table 6). Most executives,

TABLE 6

LENGTH OF SERVICE IN PRESENT ORGANIZATION

Length of Service	Number	Percent
Less than 1 yr.	1	2
1 yr.-2 yrs. 11 mths.	5	9
3 yrs.-4 yrs. 11 mths.	3	6
5 yrs.-9 yrs. 11 mths.	5	9
10 yrs.-14 yrs. 11 mths.	3	6
15 yrs.-19 yrs. 11 mths.	7	13
20 yrs.-24 yrs. 11 mths.	8	15
25 yrs.-29 yrs. 11 mths.	5	9
30 yrs. and over	17	31
Total	54	100

however, reported that they had been in their present positions less than 10 years (Table 7). Over 15 percent had had their current position less than one year.

TABLE 7

LENGTH OF SERVICE IN PRESENT POSITION

Length of Service	Number	Percent
Less than 1 yr.	9	17
1 yr.-2 yrs. 11 mths.	13	24
3 yrs.-4 yrs. 11 mths.	11	20
5 yrs.-9 yrs. 11 mths.	13	24
10 yrs.-14 yrs. 11 mths.	5	9
15 yrs.-19 yrs. 11 mths.	1	2
20 yrs.-24 yrs. 11 mths.	1	2
25 yrs. and over	0	0
N/A	1	2
Total	54	100

Besides being asked how long they had worked for the federal government, for their agency, and how long they had held their present position the executives were also asked the following question, "By how many different organizations have you been employed full time, including your present position and service in the armed forces?" As Table 8 shows,

the modal response to the question was three organizations, but no clear preponderance of executives chose any single response.

TABLE 8

NUMBER OF ORGANIZATIONS THAT EXECUTIVES IN WARNER-VAN RIPER STUDY AND THIS STUDY HAVE WORKED FOR

Number of Organizations	Number of executives this study	Percent this study	Percent Warner-Van Riper[a]
1	4	7	13
2	8	15	15
3	10	19	17
4	9	17	15
5	9	17	12
6			9
6 or 7	5	9	
7 or more			19
8 or more	9	17	
Total	54	101	100

[a]Represents career civil servants only. Warner et al., op. cit., p. 170 from Table 27. N not given.

Table 8 shows that the findings of this study relative to the organizational experience of the executives are comparable to the findings of the Warner-Van Riper study. As that study pointed out:

> In sharp contrast to both military and business executives, federal executives in all three civilian services who made interorganizational moves four or five times are in about the same proportions as those who made such moves once or twice, with little or no differences on this score among the three civilian elites. Men in the civilian elites moved more freely from one organization to another, but this finding must be interpreted as meaning, in part, that movement from one civilian agency to another is not of such consequence as movement from one military service, or business firm, to another.[9]

The career information given so far was obtained from the questionnaires which the executives filled out. In the interviews it

[9]Warner, et al., op. cit., p. 171.

was possible to obtain more detailed information. In particular it was possible to learn what organizations an executive had worked for and when he started to work for his present organization. As might be expected, many of the executives who had never worked for any other organization came to their agency straight from college graduation in the 1920's. Others started in the 1930's. As one executive put it, "I came out of college in the depression days in which there were no jobs in industry, so I was born in Washington..."[10] One executive, after teaching in college for four years, came to work for the federal government and his present agency in 1941. Another, who came to work for his present agency in 1940, had done a variety of things before working for the government. "Well I was an adjuster for Universal Credit Corporation, which is a fancy name for a bill collector. Before that I pumped gasoline for Standard Stations, Inc. in Boise, Idaho, and in Washington. And then I worked my way through college as a miner in central Idaho, in a gold mine."[11]

Several other executives also mentioned a wide variety of work activities. One said that he graduated from the University of Kansas in 1932--

> ...and I did everything. I was an engineer, then I sold Hoover vacuum cleaners. I worked for the stockyards driving sheep to slaughter, and I worked for International Harvester as a repairman, and in 1935 I got a job as a junior engineer in the old Resettlement Administration in Lincoln, Nebraska. I worked there as--I can't even remember what the grade was, it was $1040 a year, something like that. And I was making land surveys up in the Dakotas. Establishing bench marks as a transit man. Then I was, since I was a civil engineer with a sanitary engineering option, I put in a lot of privies up in the Dakotas for the farmers that were being brought in from the dustbowl and being resettled up there.[12]

---

[10]Interview No. 38.

[11]Interview No. 01.

[12]Interview No. 10.

The same man also worked for an airline, spent four years in the navy during the war, went back to the airline, and then went to work for the government when he was furloughed during a strike.

Another executive had at least as much variety in quite different activities.

> Immediately prior to coming to the Bureau I was with New York University as administrative officer in charge of the planning and development of a new campus outside of the metropolitan area. This involved extensive community contact. It involved the development of engineering plans. It involved contact with all elements of the faculty of New York University, which is an enormous institution, in interesting them in viewing the new campus as an area in which they could carry out operations that they couldn't do in the heart of the city.
>
> The New York University aspect of my career lasted only a couple of years. This was quite intentional on my part. And when I took it up, I intended it only to be a relatively temporary thing.
>
> Prior to that I had been for 15 years vice president of the Portland Cement Association where I think I should say I created the Research Development Laboratories which of their kind are the largest in the world. There as vice president I had a creative [job]. After some 10 or 12 years, it became largely an administrative job which I found much less intriguing. Therefore I decided to leave someday.
>
> Prior to that I was manager of materials research at Westinghouse Electric Corporation, in charge of chemical metallurgical, and ceramic research and development. Since the Westinghouse Electric Corporation, is a world-wide corporation, this involved my traveling very extensively and maintaining scientific contacts with agencies all over the world.
>
> Prior to that I was for 10 years professor of metallurgical engineering at Case Institute of Technology in Cleveland, Ohio, with two years out to get my doctor's in France. Prior to that, I was for a couple of years a metallurgical research scientist in a large castings corporation in Cleveland. Quite a list here.[13]

One executive with several jobs behind him had had mostly government experience. He had worked in the Office of Research Planning of the National Recovery Administration, in the office of Statistical Standards, in the U. S. Bureau of the Budget, in the National Resources

---

[13]Interview No. 44.

Planning Board, and in the Bureau of Standards. He had also served as an operations researcher in a commercial research organization. Several of the administrative executives had also worked for several government organizations. One, after being a professor of political science, was associated with budgeting in the Air Force and in several bureaus of the navy. Another was in accounting in the Navy, the Air Force, the RFC, and the General Accounting Office.

The several examples given above illustrate two patterns of career development among the executives in this study who have worked for several organizations. Some worked for many for only a short time and have worked for their present organization many years. Their early positions may have been unrelated to each other and to their present position. Witness the executive who worked in a mine, pumped gas, collected bills, put up privies, and worked for an airline. A second pattern is suggested by the executives who have worked for a number of organizations, but in each one doing work of more or less the same type. Witness among others the executive who had almost always been concerned with metal and material, and the executive who had always been in accounting.

These patterns are pointed out not only to illustrate how varied the career patterns of the executives in this study are, but also to suggest that there are different kinds or types of job mobility. There is a type that might be called non-career job mobility and there is also mobility within a specific career. Both of these, of course, must be distinguished from stability. Whether these differences in career pattern are related to differences in role definition is a question not examined in this study. It seems, however, worth noting.

Information about membership in professional societies was also obtained in both the questionnaire and the interview. There is a substantial range in the number of professional societies that the executives belong to. As Table 9 shows, most executives belong to between 2 and 5, although some belong to none and some belong to 8 or more. Table 10 shows some tendency for executives of higher rank to belong to more professional societies.[14] This is not surprising since the higher ranks may

TABLE 9

MEMBERSHIP IN PROFESSIONAL SOCIETIES

Number of Societies	Number of executives belonging	Percent
None	5	9
1	11	20
2	9	17
3	6	11
4	5	9
5	8	15
6-7	3	6
8 or more	3	6
DK	2	4
NA	2	4
Total	54	101

TABLE 10

MEMBERSHIP IN PROFESSIONAL SOCIETIES BY GRADE

Number of Societies Executive is Member of	GS-16 & over	GS-15 and under	Total
0-1	3	13	16
2 or more	24	10	34
DK and NA	4	0	4
Total	31	23	54

[14] It should be pointed out that those who couldn't or didn't say how many societies they belonged to were all GS-16 or over.

be under some obligation to represent their bureaus. As one executive put it after mentioning membership in several societies, "I'm not actually a joiner, as this sounds. Most of these were after I became chief of the bureau, and it was expected of me, and I'm not a very active member in most of them."[15] Although it is possible, it is doubtful that membership in a number of societies is the cause of higher rank, yet it is certainly conceivable that a propensity for such activities would be considered in promotion. No data on this point is available however.

The societies that the executives belong to cover a broad range. Many are members of the Cosmos Club. Many are in the American Association for the Advancement of Science. The American Physical Society and the Washington Academy of Science have many members among these executives. Quite specialized societies are also represented; for example the American Concrete Institute and the American Ceramics Society. One belongs to the American Society for Public Administration.

In addition to being asked about organizational membership, the executives were asked about organizational activity. Their responses indicated clearly that they are active in fewer than they belong to. But as Table 11 shows, executives of GS-16 and over are more active than lower grade executives, just as they belonged to more societies than lower grade executives.

TABLE 11

ACTIVITY IN PROFESSIONAL SOCIETIES BY GRADE

Number of Societies Executive is Active in	GS-16 and over	GS-15 and over	Total
0-1	18	19	37
2 or more	10	3	13
DK and NA	4	0	4
Total	32	22	54

[15]Interview No. 12.

The education of the executives is the last area of information that will be reviewed here. It is an area that contains few surprises. As we would expect these executives have a high level of formal education. Indeed, they have a considerably higher level of education than high level federal executives generally. The Warner-Van Riper study found:

> Education was the principal preparation for advancement; nine out of ten have at least some college training and eight out of ten are college graduates. Less than one-half of one percent have less than high school education. Moreover, college education did not terminate with the A.B. degree; one fourth have the M.S., one tenth the Ph.D. and one tenth a degree in law. Areas of specialization cover every field, from the humanities (9 percent) and the behavioral sciences (16 percent) to business administration (12 percent) and engineering (33 percent.) As they advance from the A.B. to the Ph.D. the emphasis tends to be toward the behavioral, physical, and biological sciences.[16]

Table 12 shows that the executives in this study all have at least some college and most have graduate study behind them. Almost a quarter have the Ph.D. and just under one fifth have a law degree.

TABLE 12

EDUCATIONAL LEVEL OF EXECUTIVES

Level	Number of Executives	Percent
High school	0	0
Some College, less than two years	1	2
Two-Four years College	3	6
College Degree	5	9
One or more years study past college	11	20
Master's Degree	11	20
Law Degree	10	19
Ph.D. Degree	13	24
Total	54	100

[16] Warner et al., op. cit., p. 11.

At the Ph.D. level the relationship between grade and education is clear as Table 13 shows. With less than a Ph.D. there seems to be no clear relationship between grade and education. The relationship between grade and Ph.D. is no doubt at least in part explained by a tight job market for science Ph.D.'s which necessitates their being hired under P.L. 313.[17]

TABLE 13

EDUCATION BY GRADE

Grade	Ph.D.	Law	Masters	Grad. Study	Other	Total
GS-16 and over	12	5	6	5	3	31
GS-15 and under	1	5	5	6	6	23
Total	13	10	11	11	9	54

Some rather general data were obtained concerning the adacemic fields of concentration of the executives. The most common field was natural or physical science, followed by law, engineering, and administration (Table 14). Of the 54 executives 26, or almost half indicated

TABLE 14

ACADEMIC FIELDS OF CONCENTRATION OF EXECUTIVES

Field	Number of Executives	Percent
Natural or physical science	23	43
Engineering	9	17
Law	12	22
Administration	8	15
Other	2	4
Total	54	101

[17]Under P.L. 313, 80th Congress as amended, agencies are authorized to fix salaries for a limited number of research and development positions without reference to classification act schedules.

two fields of concentration. The most common combination was law and engineering, but there were combinations also of science and engineering, science and administration, and engineering and administration, to name only a few.

Activities of the Executives

Statistics are not the only way to describe the executives being studied. Certainly it seems insufficient to describe the executives in terms only of some personal characteristics. It seems important also to have some knowledge of their activities. The interviews are a source of qualitative material that will serve this need.

The different executives are concerned with personnel, with more or less routine administrative matters, and with policy and program planning. The higher ranking executives, naturally, are more concerned with planning and also with representing their bureaus before department officials, before the Bureau of the Budget, before Congressional committees, and before other interested parties. The lower ranking officers are concerned more often with routine administrative matters. The personnel and budget officers of course devote most of their time to those matters.

Nothing can give a clearer picture of what the executives do than to quote directly from several of the interviews. One bureau chief, for example, in describing his work and the work of his deputy said that he was mainly concerned with the relations of the bureau with other organizations and his deputy was primarily concerned with the internal operation of the bureau.

> My approach to this I think would be to discuss first of all the combination of my job and the job of the deputy director. Then how the responsibilities are divided between the two. Of course the dual job is one of the overall management of the organization, and the setting of objectives, and the assignment of responsibility

> to carry out objectives, the securing of resources with which to carry out the objectives, and this includes funds and approvals and this sort of thing. And attempting to relate our program to the needs of the technological community that we serve. This of course has been the main part of the program and the setting of objectives to determine the means of the customers we serve, and in this process we also attempt to relate our programs to programs in other government agencies and other organizations that are relevant, that have technological relevance to things we are doing. Now, in connection with this overall responsibility of determining what we have to do, acquiring the resources to do it, and setting objectives or assigning responsibilities for carrying out, my deputy and I divide responsibilities generally as follows. His is the responsibility for internal operation of the organization, actually carrying out the program as developed, and mine primarily the responsibility of obtaining the resources to do it and of attempting to relate our programs to the needs of customers and to the corresponding programs throughout the government and the scientific community. In other words, his is the inward responsibility and mine is the outward responsibility. We jointly attempt to define objectives.[18]

Other heads also emphasized the importance of maintaining outside contacts and representing the organization. One said:

> Well, my own philosophy of my job is that I should have strong deputies who know the details of these programs better than I, and that I should be, in a sense, a promoter of the programs with the business community, with the government establishment, and of course ease their day to day administrative problems. My function is, in a sense, to interpret the needs of my activities to the department, to the Budget Bureau, to the secretary, and so forth, and to make them more effective by making the business aware of them, and see that they use them. But my personal theory is that I should not intrude too much in the day to day mechanisms. I should have people that I trust, that report to me, in general so that I know what's going on, but I don't want to dabble in their day to day activities.[19]

Another bureau head noted that his job broke into two parts--"'administrative functions and' propaganda and political functions."[20] Not all the

---

[18]Interview No. 43.

[19]Interview No. 38.

[20]Interview No. 31.

bureau chiefs, of course, tend only to outside affairs. One noted that he was quite concerned with personnel.

> I've always felt that the head of any agency had to keep in the middle of selection of key personnel. And to a considerable extent in being sure that as far as he could the best selection methods were used for not only key personnel in each branch but for selecting the professional people who had a considerable growth curve ahead of them. So I've given personal attention, I haven't made the decisions, I'd like to make that clear, they've been group judgments in most cases...[21]

At the levels right below the bureau chiefs there is still considerable concern with policy and program planning. And there is also promotion, or at least contact with other organizations. An assistant chief said:

> I try to impose myself into the administrative process as little as possible. And I try to spend as much of my time as possible as a program developing and planning and promoting officer.[22]

Somewhat later in the interview, commenting on his promotion activities, the same respondent said:

> I use every opportunity to acquaint personnel in the department, in the Budget Bureau, in the professional world with what we are doing and why. We have been appearing before a number of professional organizations reading technical papers for example.[23]

The respondent noted that technical professional promotion was necessary in order to get a "proper supporting environment for the kind of program we are talking about."[24]

Another respondent of equal rank in another bureau said that his job was to get facts and draw up recommendations for changes in programs and policies. He noted also that his work required that he cultivate contacts

---

[21] Interview No. 12.

[22] Interview No. 28.

[23] Ibid.

[24] Ibid.

with industry as well as with other government agencies. Another executive also emphasized his outside work.

> I would say that the bulk of my time, that is, the greatest demand on my time in an executive position is attending conferences. It is most important that I keep my fingers on the pulse of the industry to be sure that we're not getting behind, to be sure that we know what the trends are...And in order to do this, you have to attend a lot of conferences, a lot of conventions. You participate in a host of interdepartmental co-ordinating agencies in order to insure that you know what is going on, that you can properly direct your facilities, toward the needs of the community that you're trying to serve. I say this takes up the bulk of my time. Another pretty large segment of my time is pretty routine: writing letters and handling complaints and directing them to the right place in the bureau...[25]

One executive emphasized the scope, the diversity of his personal responsibilities.

> They include the general planning of the overall effort, the direction of the people who carry out the detailed day to day operations, conferences with those people, problems of education, new people, re-education of our present group of personnel... Other responsibilities of course include contacts and of course some general responsibility in the use of financial resources that are allocated to us.[26]

This respondent also pointed out that he had to co-ordinate with other divisions in his bureau and also with opposite numbers in the air force and the navy and in other government agencies.

At somewhat lower levels there is more administrative work and less opportunity to engage in policy matters. As one division chief said:

> There is a considerable amount of administrative work, the review of material going from the sections back to management and that sort of thing. Of course, one has responsibilities for planning program, for budget justifications, for reporting progress on work that is underway, for reviewing proposed work that is to be sponsored...[27]

---

[25]Interview No. 10.

[26]Interview No. 09.

[27]Interview No. 54.

Unlike the work of the operating executives the work in the personnel and budget divisions is rather specialized. A budget officer reported:

> Well, I would say that about 60 percent or 70 percent of my time is spent on budget work, which is the development of estimates to the department, the Bureau of the Budget, to the Congress, justifying those and providing supplementary information to the various reviewing bodies. A good share of time and responsibility is also involved with the allocation of the appropriation after it has been received from the Congress into the various allowances which go to support operating work programs.[28]

A personnel officer noted that his primary responsibility was to assist the line supervisors of the office in getting the work done efficiently and effectively in accordance with civil service regulations. But he also said:

> Another major time consuming thing, which doesn't show up so much in the profit and loss column, but nevertheless is the function with a personnel officer must perform if his organization is to run smoothly, is simply that of acting as chaplain.[29]

He had, in other words, to be available to discuss personal problems.

These several excerpts from the interviews may give some idea of what the executives that are the subjects of this study do. They plan and promote, budget and listen. In their functions they appear not unlike other executives.[30] With the knowledge of what they do and of what they are like in terms of some personal characteristics, and knowing something about the organizations they work in we can begin in the next chapter to examine the hypotheses that were set forth at the end of Chapter IV.

---

[28]Interview No. 06.

[29]Interview No. 29.

[30]Perhaps the lesson is that at the highest levels, where an executive is responsible for an organization and not for personnel, the functions of executives are similar. Perhaps at lower supervising levels what executives do may vary with the personnel in the organization. Laboratory directors, for example, are not foremen.

CHAPTER VI

THE CAREER IDENTIFICATION OF THE EXECUTIVES: INSTITUTIONALISTS AND PROFESSIONALS

Examination of the data that bear on the institutionalist-professional or cosmopolitan-local dichotomy is the purpose of this chapter. The next chapters will deal with work involvement, with rule following behavior, and with relations with superiors. The data in this and the following chapters are in many cases subjected to tests of statistical significance, but since the executives number only 54, findings must be considered tentative even when they display statistical significance. In the course of analysis, an effort is made not only to show that there is a relationship between variables but also to show that there is no relationship. At this stage of executive research it is as important to report on dead ends, as it is to report on avenues worth traveling.

The Analysis of Career Identification

To determine whether an organization member is an institutionalist or a professional, this study uses in part the method of Marvick and of Slesinger. These researchers, in effect asked respondents whether they identified as public servants or professionals.[1] The questionnaire which was used to collect the data for this study included a question similar to the one used in the studies conducted by

---

[1] Supra, pp. 24-26.

Marvick and Slesinger. This question, after developing a rationale for the dichotomy to be presented, asked the executives whether their career had developed in the framework of the public service or in the framework of a profession or speciality. The exact question is given below.

> People view their career in different ways. Some think of their careers in terms of working in the federal government or in a particular department, bureau, or agency of the federal government or in a particular function found mainly in the federal government such as the foreign service, defense, intelligence, and so on; these are people building their careers in the framework of the public service. Others think of their careers in terms of some professional or occupational speciality such as lawyer, psychologist, doctor, physicist, administrator (executive, manager), engineer, and the like; these people are building their careers in the framework of their particular profession or speciality irrespective of any organizational or institutional setting.
>
> How do you see the conscious development of your career?
> CHECK ONE
>
> ___(1)Primarily in the framework of the public service
> ___(2)Primarily in the framework of a profession or speciality
> ___(3)Other (please specify):_____

Besides this question the questionnaire included another item written with the same dichotomy in mind but with a different form. This question, given below, was an indirect one.

> Imagine that you are about to be introduced to a group of people with mixed background and jobs and that, for good reasons, it is important to impress them about yourself as much as possible. The person introducing you asks, "What is your occupation?"
> WRITE IN YOUR ANSWER

To code this question, the questionnaire coders were given the following instructions.

> Code as public service any answer that emphasized working in the federal government or in a particular department, bureau, or agency of the federal government or in a particular function found mainly in the federal government such as the foreign service, defense, intelligence, and so on.

> Code as profession or speciality any answer that emphasized working in some professional or occupational speciality such as a lawyer, psychologist, doctor, physicist, administrator (executive, manager), engineer, and the like, which is transferrable between federal and non-federal or between government and non-government settings.
>
> Code as both any answer that suggests both some professional or occupational speciality and the setting in which the respondent says he carried it out. . .

The coders were also given explicit instructions not to use the results of the direct question in coding the responses to the indirect question. The indirect question appeared first in the questionnaire and they were instructed not to look at the replies to the direct question until they had already coded the response to the indirect question.

In response to the direct question 31 executives said that their career was developing in the framework of the public service and 18 said that it was developing in the framework of a profession (Table 15).

TABLE 15

DISTRIBUTION OF RESPONSES TO DIRECT CAREER IDENTIFICATION QUESTION

Response	Number	Per cent
Public Service	31	57
Profession	18	33
Other	1	2
Both	3	6
NA	1	2
Total	54	100

In response to the indirect question only 23 indicated a public service career identification and 22 indicated a professional identification (Table 16).

TABLE 16

DISTRIBUTION OF RESPONSES TO INDIRECT CAREER IDENTIFICATION QUESTION

Response	Number	Per cent
Public Service	23	43
Profession	22	41
Both	7	13
NA	2	4
Total	54	101

As important as the responses to these two questions is the frequent lack of agreement between the responses to the direct and indirect questions. Fifteen executives indicated in response to both items that they had a public service identification and 9 executives both times indicated a professional orientation (Table 17). The remaining

TABLE 17

NUMBER OF EXECUTIVES RESPONDING THE SAME WAY TO BOTH CAREER IDENTIFICATION ITEMS

Response	Number	Per cent
Public Service in both items	15	28
Professional in both items	9	17
Other	30	56
Total	54	101

30 executives answered first one way and then another. These results require explanation.

The relatively large number of executives who responded inconsistently may have done so because of the question. It is possible that an executive might see his career developing in the public service, and yet should he think the public service were not held in high esteem he might, if it were important to impress others, say that he was a physicist. The questions, in short, may not be asking quite the same thing.

On the other hand, it can be argued that the questions do separate the executives who strongly identify with the public service from those who identify weakly and the strongly identified professionals from the weakly identified. The executive who strongly identifies as a public servant may, in response to the indirect question, indicate a public service orientation regardless of the prestige of the public service. (In fact, he might not perceive anything but high prestige.) The weakly identified may reply one way in one place and another way in another place.

Additional data collected in the questionnaire support the notion that consistent and inconsistent responses to the two career identification items signify rather different patterns of career identification. They also show that the executives who indicated a public service orientation in both items tend to have an institutional or organizational identification. Included in the questionnaire was an item that asked the executives where they expected to be in five years. The question is given below.

> Looking ahead for the next five years or so, do you think that you will be working for:
>
> ___(1)The same unit of the agency I am now in
> ___(2)The same agency but a different unit
> ___(3)The federal government, but a different agency
> ___(4)Private industry
> ___(5)University or other non-profit institution
> ___(6)Myself (i.e., self-employed)
> ___(7)Other

The response to this item clearly indicated that many of the executives were going to stay right where they were (Table 18). Almost

TABLE 18

DISTRIBUTION OF RESPONSES TO FIVE YEAR FUTURE ITEM

Response	Number	Per cent
Same unit	25	46
Same agency	3	6
Federal government	2	4
Private Industry	0	0
University	8	15
Myself	4	7
Other	5	9
NA	7	13
Total	54	100

half planned on being in the same unit. It is at least interesting that none planned on being in private industry. Analysis of these responses showed a significant relationship between an executive's five year future and his career identification pattern as determined by consistency of response to the two questions on career identification (Table 19). Of the 15 executives who indicated a strong public service

TABLE 19

CAREER IDENTIFICATION OF EXECUTIVES RELATED TO FIVE YEAR FUTURE

Career Identification	Staying in same unit	Other Responses	Total
Public Service (identified with public service in both items)	12	3	15
Hybrid (inconsistent replies)	10	20	30
Professional (identified with professional in both items)	3	6	9
Total	25	29	54

Chi square significant at better than .02 level of confidence.

identification, 12 said they planned to stay in the same unit. These data are consistent with the conception of the institutionalist as

being organizationally identified as well as public service identified. For purposes of analysis the 3 executives who did not say they will be in the same unit will be grouped with the institutionalists. They clearly are not professionals and not hybrids either.

Finding that there are only 15 institutionalists among the 54 executives forces rejection of the hypothesis that the executives in this study would tend to be institutionalists. If institutionalists and professionals are opposite ends of a career identification continuum, then the data seem to indicate that most of the executives tend to be not at either end but in the space between. These executives, the ones who did not respond consistently to both career identification items, may be, to use Marvick's term, hybrids.

Because consistency of response has been used in determining the identification patterns of the executives, the hybrid pattern in this study may be somewhat different from Marvick's hybrid pattern. At least a difference in definition needs to be made clear. In Marvick's study the hybrid explicitly saw his career both in the public service and in a profession. Marvick found that almost a third (32 per cent) of his respondents were thus hybrids.[2] In the present study both of the career identification questions drew largely "either-or" replies; few executives answered "both." Using only Marvick's method of determining the hybrid identification pattern, the hybrids in this study would have been few. Most of the executives would have been either public servants or professionals. But looking at consistency of response to two items the executives did not cluster neatly at the poles; rather over half are in between. This distribution of identification patterns may be more realistic than would be a distribution obtained from the responses to either of the items alone.

---

[2]Marvick, op. cit., p. 32, Table I.

March and Simon may throw light on the number of hybrids. They have noted four principal targets for identification: "(1)Organizations external to the focal organization (i.e., extraorganizational identification); (2) the focal organization itself (organizational identification); (3) the work activities involved in the job (task identification); and (4) subgroups within the focal organization (sub-group identification)."[3] The number of hybrids, the number of executives who are neither clearly professionals nor institutionalists, may reflect this complexity.

So far the analysis has shown only that the executives in this study exhibit one of three patterns of career identification. More than half are hybrids, 15 are institutionalists, and 9 are professionals. The remainder of this chapter examines these career identification patterns in conjunction with several other variables.

Rank and Career Identification

It was hypothesized that, "The higher the rank of an executive the more likely it is that he will be an institutionalist." Analysis of the data does not bear out this hypothesis. Although the small numbers involved make it hard to say anything with certainty, it appears in Table 20 that lower ranking executives tend to be institutionalists

TABLE 20

CAREER IDENTIFICATION RELATED TO RANK

Rank	I	H	P	Total
Office chief & above	6	15	8	29
Division chief & below	9	15	1	25
Total	15	30	9	54

Chi square significant at better than .10 level of confidence.

[3]James G. March and Herbert A. Simon, Organizations (New York, 1958), p. 65.

and hybrids; the higher ranking executives tend to be hybrids and professionals. Certainly it is clear that professionals tend to be office chiefs or higher while hybrids are evenly divided.

The initial hypothesis was based on Kornhauser's observation that in higher positions the norms of management and the organization are more controlling. The finding that higher ranking executives do not tend to be institutionalists does not alter the validity of Kornhauser's observation. It may only point out that an institutional orientation is not necessarily a management orientation in the five scientific and technical organizations in this study.

Career Identification and Organization

Since an institutional orientation is not necessarily a management norm in each of the five scientific and technical organizations in this study, some attention to the relationship between organization and career identification seems relevant. Although no hypotheses concerning career identification and organization were suggested, it seems at least a plausible assumption that the organization may be related to career identification. Stated another way, it seems unlikely that career identification would be entirely unrelated to organizational membership.

Table 21 below shows the distribution of career identification

TABLE 21

CAREER IDENTIFICATION OF EXECUTIVES BY ORGANIZATION

Organization	I	H	P	Total
1	0	5	0	5
2	3	10	1	14
3	6	5	1	12
4	3	2	4	9
5	3	8	3	14
Total	15	30	9	54

Test not made (see Appendix A).

patterns among the organizations. It is, of course, impossible to draw conclusions when so few executives are divided up so many ways. Organization Three has the largest proportion (as well as the largest number) of institutionalists. Organization Four has the largest proportion of professionals. The executives in the other organizations tend to be hybrids. Certainly there is no evidence that career identification is related to organization. The distribution shown in Table 22 may be due to chance, yet it should be kept in mind that professionals are clustered in organizations Four and Five. The possibility of a relationship between career identification and organization should be remembered.

Since there are only 54 executives in five organizations, the reason for even looking at the executives divided by organization may not be clear and should be made so. This study could analyze only the attitudes and behavior of 54 disparate executives. But to do this would be to miss an opportunity to look at the attitudes of individuals in similar positions but in different social organizations. Certainly many more cases would be desirable, but their lack need not be fatal if the aim of looking at the executives in their organizations is not to achieve statistical significance or to establish conclusions but only to explore the data for hypotheses bearing on the relationships between the organization and the individual.

Education and Career Identification

"The less education an executive has the more likely it is that he will be an institutionalist." This was the prediction of the hypothesis relating education to career identification. The tables below support

the hypothesis. Table 22 shows the education level of executives in

TABLE 22

EDUCATION AND CAREER IDENTIFICATION

Level	I	P (number)	H	Total
Ph.D.	2	3	8	13
Law degree	3	3	4	10
Master's	1	0	10	11
Graduate study	5	2	4	11
College	2	1	2	5
Less than college	2	0	2	4
Total	15	9	30	54

the three career identification groups in detail. To clarify the relationship between education and career identification, the data in Table 22 were collapsed into a 2 x 2 table. Table 23 shows that the

TABLE 23

EDUCATION AND CAREER IDENTIFICATION II

Level	Institutionalists (number)	All Others	Total
Master's and above	6	28	34
Below master's	9	11	20
Total	15	39	54

Chi square significant better than .05 level of confidence.

executives with an M.A. or equivalent and above are much more likely to be either professionals or hybrids than they are to be institutionalists. Institutionalists tend to have less than the master's degree. This finding agrees with Marvick's finding. It seems to agree also with the findings of Slesinger.[4] Slesinger, however, observed that "education

[4]Slesinger, op. cit., p. 48, 52.

does not always yield predictable relationships."[5] This seems also to be the case in the present study. Knowing that institutionalists are likely to have less than a master's degree, we might expect that the executives in Organization Three, which according to Table 21 has the largest proportion of institutionalists, would tend to have less than the master's. As Table 24 shows our expectation would be disappointed.

TABLE 24

EDUCATION OF EXECUTIVES BY ORGANIZATION

Organization	Master's or higher	Less than master's	Total
1	1	4	5
2	12	2	14
3	10	2	12
4	3	6	9
5	8	6	14
Total	34	20	54

Test not made.

Ten of 12 executives have the master's or a higher degree. Furthermore, of the 6 institutionalists in Organization Three 4 have the master's or higher (not tabled). This apparent anomaly might be explained if career identification were affected by the organization. The institutionalists that have more than the master's could be adapting to identity cross pressures.

Education may produce a career identity which an individual brings to his organization. The organization may change or reinforce or leave untouched this identity. If the member entered with a strong professional identity he may remain a professional or become a hybrid. If his

---

[5] Ibid., p. 52. Slesinger goes on to say that education "is one area which might be explored in greater detail to determine whether education contributes to the mode of adaptation or whether the adaptation is already emerging and influences the selection and achievements of the educational experience. The evidence in the present study suggests that modes of adaptation result at least partly from the education experience."

professional identity were weak he might become an institutionalist. To be sure the organization must also be considered. An organization may actively encourage an organizational identity among its members or it may encourage them to identify as professionals.

Whether or not organization is related to career identification it is clear that education is, but career identification is probably not only related to education. Several hypotheses were proposed in Chapter IV that suggested relationships between career identification and other variables. The next sections examine these hypotheses.

Age and Career Identification

One hypothesis predicted a relationship between career identification and age. "The older an executive is, the more likely it is that he will be an institutionalist." This hypothesis must be rejected. Table 25 indicates that age has no relationship with career identification.

TABLE 25

AGE OF INSTITUTIONALISTS

Age	I	All others	Total
35-49.9	7	11	18
50-54.9	3	15	18
55 and over	5	13	18
Total	15	39	54

Test not made.

Older executives are not more likely to be institutionalists. This agrees with the finding of Marvick's study.

Length of Service and Career Identification

Length of service seems also unrelated to career identification. The hypothesis predicting a relationship between the two variables stated, "The longer an executive has served in his organization the more likely

it is that he will be an institutionalist." As Table 26 shows this

TABLE 26

INSTITUTIONALISTS AND LENGTH OF SERVICE IN ORGANIZATION

Service	I	All others	Total
20 years or more	10	20	30
Less than 20 years	5	19	24
Total	15	39	54

Chi square not significant. (See Appendix A.)

hypothesis cannot be supported. Executives who have served less than 20 years are no more likely to be hybrids or professionals than are executives who have been in their organizations more than twenty years. However, the hypothesis did predict the direction of the variation. Twice as many institutionalists have served longer than twenty years than have served less than twenty years. When "all others" are divided into hybrids and professionals as in Table 27, it appears that the professionals

TABLE 27

CAREER IDENTIFICATION AND LENGTH OF SERVICE IN ORGANIZATION

Service	I	H	P	Total
20 years or more	10	16	4	30
Less than 20 years	5	14	5	24
Total	15	30	9	54

differ from the institutionalists and the hybrids occupy middle ground. This is what we would expect. Although the data do not support the hypothesis they do not contradict it and it should be tested again using a larger number of cases.

Career Identification and Job Satisfaction

Hypothesis 1.d. predicted that institutionalists would be more

likely than other executives to be satisfied with their jobs. The data that bear on this hypothesis are the responses to two items that asked about job satisfaction and agency satisfaction. One item asked, "Considering your job as a whole, how well do you like it?" Table 28 shows the

TABLE 28

DISTRIBUTION OF RESPONSES TO QUESTION ABOUT JOB SATISFACTION

Response	Number	Per cent
I don't like my job at all	1	2
Don't like it too well	0	0
Like some things about it, dislike others	6	11
Like it fairly well	6	11
I like my job very much	41	76
Total	54	100

response to this item.

Another item also brought responses that indicated that the executives were generally satisfied. This item asked, "Taking things as a whole, how satisfied are you with the agency and your job?" Table 29

TABLE 29

DISTRIBUTION OF RESPONSES TO QUESTION ABOUT SATISFACTION WITH AGENCY AND JOB

Response	Number	Per cent
I'm not satisfied and there are a great many things that could be changed.	5	9
I'm not very satisfied but I can see no way things could be changed.	0	0
I'm quite satisfied with the agency but there are certainly many things that could be changed.	25	46
I'm very satisfied but I know of some things that could be changed.	21	39
I'm very satisfied with the agency and would not want to see them make any changes.	1	2
DK and NA	2	4
Total	54	100

gives the response to this item.

Although the executives are generally satisfied there is enough variation in their responses to explore the relationship between job satisfaction and career identification. Table 30 shows that job

TABLE 30

JOB SATISFACTION AND CAREER IDENTIFICATION

Response	I	All others	Total
Likes job very much	12	29	41
Other	3	10	13
Total	15	39	54

Test not made

satisfaction without mention of agency as measured by the responses in Table 28 is not related to career identification. Table 31 shows that

TABLE 31

SATISFACTION WITH AGENCY AND JOB AND CAREER IDENTIFICATION

Response	I	All others	Total
Very satisfied	8	13	21
Less satisfied	7	24	31
Total	15	37	52[a]

Chi square not significant

[a]Cases in Tables 32 and 33 total 52 because they omit DK and NA responses.

agency and job satisfaction as measured by the responses in Table 29 is not significantly related to career identification.

These findings are interesting because it was expected that institutionalists would exhibit a higher level of job satisfaction than professionals and they do not. Some explanation for this result may be found by comparing Tables 30 and 31. It is clear in Table 30 that there is no relation between job satisfaction and career identification, but in Table 31 which dealt with satisfation with agency as well as job

the figures shift considerably, although the table is not statistically significant. Especially noticeable is the shift in the "all others" category. This shift may point out that there is a difference between satisfaction with agency and satisfaction with job and that career identification is unrelated to satisfaction with job. Institutionalists, the organizationally identified, may tend to be satisfied with their organization more often than professionals. This is a hypothesis that might be tested in a larger sample.

The two tables show that there is some difference between satisfaction with agency and satisfaction with job. No doubt there are several reasons for this, but one may be that an employee may like what he is doing, his job, but not be satisfied with the environment in which he is working, his agency. This suggests that as an indicator of future personnel turnover in an organization some measure of satisfaction with the organization may be better than a measure of job satisfaction. These remarks are supported by Table 32 It shows a clear relationship between

TABLE 32

SATISFACTION WITH AGENCY AND JOB AND FIVE YEAR FUTURE

Response	Will stay in same agency or unit 5 years hence	Will be elsewhere in 5 years	Total
Very satisfied	17	5	22
Less satisfied	11	19	30
Total	28	24	52

Chi square significant at better than .01 level of confidence between satisfaction with agency and five year future.

Career Identification of Administrative Executives

Earlier it was predicted that administrative executives would not tend to be institutionalists. In view of the findings so far we

might now expect that most of the administrative executives would be hybrids; this is not the case. Of the 14 administrative executives 8 are institutionalists, as Table 33 shows. If chance alone were operating

TABLE 33

CAREER IDENTIFICATION OF ADMINISTRATIVE EXECUTIVES

Identification	Admin. Execs.	All other	Total
Institutionalist	8	7	15
Hybrid	4	26	30
Professional	2	7	9
Total	14	40	54

Chi square significant at .05 level of confidence.

we would expect only 4 to be institutionalists. Four are hybrids while if chance alone were operating probably 8 would be. Only 2 of the administrative executives regard themselves as professionals.

The distribution shown in Table 33 is consistent with the earlier finding that the more education an executive has the more likely it is that he will be a hybrid or specialist (Table 23). The administrative executives do not have as much formal education as the other executives in the group. Only 3 of the 14 have more than a master's degree (Table 34). Of the 40 other executives 20 have more than a

TABLE 34

EDUCATIONAL LEVEL OF ADMINISTRATIVE EXECUTIVES COMPARED WITH THAT OF OTHER EXECUTIVES

Level	Admin. Execs.	All Others	Total
Above master's	3	20	23
Master's and below	11	20	31
Total	14	40	54

Chi square significant at better than .1 level of confidence.

master's and 20 have the master's or less. That administrative executives tend to be institutionalists is also consistent with the finding that institutionalists tend to be of lower rank. As Table 35 shows adminis-

TABLE 35

RANK OF ADMINISTRATIVE EXECUTIVES COMPARED WITH THAT OF OTHER EXECUTIVES

Rank	Admin. Execs.	All Other	Total
Office chief and above	4	25	29
Division chief and below	10	15	25
Total	14	40	54

Chi square significant at better than .1 level of confidence.

trative executives tend to rank lower than the other executives in this study.

The difference in career identification between administrative executives and other executives suggest that the traditional staff services (personnel, budget, organization and management) are not thought of as professions. These services may not provide a focus for identification and the men who perform these services may find it easier to identify with the organization in which they work than with their occupational speciality. In contrast, executives trained in more clearly defined, better known occupations may find identification with a profession an obvious alternative to identification with the organization. Even if they do not identify strongly with their profession, they may, because they are members of it, be more likely to identify as hybrids.

The difference in career identification between administrative executives and other executives raises questions that should be made clear even though they will not be dealt with here. The most obvious is what

effect the difference may have on relations between administrative executives and other executives. Is it a cause for friction or does it not have any effect? It would be interesting also to find out if the relationships of budget officers with opposite numbers at higher levels (department, Bureau of the Budget) show any variation relative to variation in their career identification pattern. Does a budget officer who is an institutionalist behave differently from a budget officer who identifies with other budget officers? The answers require further research.

Conclusion

We know now of the existence and distribution of three different patterns of career identification and have analyzed the relationships between these patterns and several variables. The career identification of the executives in this study is related to rank and to education. All but one of the professionals ranks as an office chief or higher and professionals are more highly educated than institutionalists. The hybrids, executives who are not strongly identified with either organization or profession, often occupy middle ground. They are as highly educated as professionals, but as many are division chiefs or lower as are office chiefs or higher. In relation to length of service the hybrid appeared to bridge a gap between institutionalists and professionals. These findings support conceiving career identification as a continuum with professionals and institutionalists on the ends and hybrids in the middle.

If career identification is viewed as a continuum it is probably not surprising that there are more hybrids than there are professionals or institutionalists. What is interesting is that in these scientific

and technical organizations there are more institutionalists than there are professionals. Even in Organization Two which has many Ph.D.'s there is only one professional. An interesting question is whether merely working in these organizations hinders a professional career identification. While this is possible it is as likely that being an executive hinders a professional career identification. Coping with the demands on the executive role may erode a professional identification, if indeed the executives ever had professional identifications. It may be that individuals with strong professional identifications do not become executives. Often scholars do not want to become chairmen, let alone deans.

The existence of different patterns of career identification raises the question of whether their existence has any relevance for behavior in the organization. Do executives that are institutionalists, or professionals, or hybrids work or operate differently? Or, on the contrary, is career identification unrelated to performance? The next chapters examine data bearing on this question.

CHAPTER VII

EXECUTIVES AND THEIR WORK

The Work Involvement of Executives

Hypothesis 2 stated, "Executives in professional organizations will be highly involved in their work." The literature on executives suggests that this will be so, and the data gathered in the questionnaire seem to support the hypothesis. One question asked the executives:

> Some individuals are completely involved in their work--absorbed by it night and day. For others, their work is simply one of several interests. How involved do you feel in your work?

The responses to this question, shown in Table 36, indidate that over half of the executives were greatly or completely involved. Not one executive

TABLE 36

RESPONSE TO WORK INVOLVEMENT QUESTION

Response	Number	Percent
I am not much involved in my work	0	0
Moderately involved	2	4
Considerably involved	18	33
Greatly involved	27	50
I am completely involved in my work	7	13
Total	54	100

said that he was "not much involved" in his work, but the data show variation in the degree of work involvement among the executives.

Besides being asked how involved they felt in their work the executives were also asked to indicate how many days of how many hours duration they devoted to their work in a typical month. That is, each executive was asked how many days a month he did no work, how many days he worked

1 to 4 hours, how many days he worked 5 to 8 hours and so on. The text of the question was as follows.

> In a typical month (of 22 weekdays and 8 weekend days), how many days of differing duration do you usually spend on all matters related to your work in the agency? Include all technical and related work, whether paid for it or not, including work which you do at home; exclude intervals for meals and recreation. FILL IN SPACES BELOW TOTALLING TO 30 DAYS. (For example, if you work a regular 5-day, 40-hour week, you would indicate 8 days of no work-related time, and 22 days of 5-8 hours each.)
>
> In a typical 30-day month, there are usually:
>
> _____days when I put in no work-related time
> _____days when I put in from 1 to 4 hours
> _____days when I put in from 5 to 8 hours
> _____days when I put in from 9 to 10 hours
> _____days when I put in from 11 to 12 hours
> _____days when I put in from 13 to 14 hours
> _____days when I put in 15 hours or more
>
> _____Total days per month; should equal 30

Preliminary examination of the responses to this item revealed that one executive worked a regular 5 day 40 hour week with 8 work free weekend days and 22 days of 5-8 hours each. Among the other executives there was considerable variation so it was essential to summarize the data in some usable and convenient fashion. Since a generally used measure of work time is hours per week the obvious step seemed to be to convert the data into this form. To be sure, doing this will give only a very

approximate figure.[1] Since the data may itself be only approximate, however, rough calculation seems permissible. Moreover, although the figures do give some idea of the work week put in by government executives the main purpose of the final answer is to allow comparison among executives, not to indicate absolutely how much each executive works.

After calculating the hours worked per week by each executive it was necessary to develop categories that would include all the executives. The categories are shown in Table 37 together with the distribution of executives among them.

---

[1] As the question shows, changing the data into hours worked per week is complicated by the manner in which the data were originally obtained. The responses do not tell us whether an executive works 5 or 6 or 7 or 8 hours. As a basis for calculating it was decided that the higher value of each category would be used with the exception of the last category. That is, in calculating hours worked per month the categories used were 4, 8, 10, 12, 14, and 15. Although this was essentially an arbitrary decision it seemed reasonable to assume that the man who said he worked a 5 to 8 hour day worked in fact an 8 hour day, at least most of the time. Similarly, the man who said he worked a 1 to 4 hour day probably in fact worked 4 hours, a half day, on Saturdays. To simplify calculation the hours worked per month were divided by 4 to arrive at hours per week. Perhaps an illustration can clarify the operations.

One executive responded to the question as follows:

2 days when I put in no work related time
2 days when I put in from 1 to 4 hours
3 days when I put in from 5 to 8 hours
11 days when I put in from 9 to 10 hours
10 days when I put in from 11 to 12 hours
2 days when I put in from 13 to 14 hours
0 days when I put in 15 hours or more

30

Following the procedure outlined above the calculation was:

2 x 4 = 8
3 x 8 = 24
11 x 10 = 110
10 x 12 = 120
2 x 4 = 28

290 hours per month ÷ 4 = 73 hours per week

TABLE 37

WORK WEEKS OF EXECUTIVES

Work Week	Number	Percent
40-49 hours	10	19
50-54	13	24
55-59	9	17
60-64	8	15
65-69	2	4
70 and over	7	13
DK and NA	5	9
Total	54	101

The data in the table indicate that almost half of the executives work more than 54 hours a week. About 75 percent work more than 50 hours a week. These figures also support the hypothesis that executives in professional organizations are highly involved in their work. The amount of overtime put in is consistent with the data in Table 36 which show that many of the executives feel greatly involved in their work.

Two other questions also brought responses that provide data on the work involvement of executives. These questions involved ranking in importance different areas of the executive's life. In one of them the executives were asked:

> Now, being as objective as you can, indicate <u>how you feel your own behavior would look to others who really know you</u>--if they were to rank these five items concerning you.
> Put a number 1 next to the item you think others who really know you would say is the most important in your life. Put a number 2 next to the second most important--and so on.
>
> _____Your work or occupation
> _____Your family
> _____Your friends
> _____Your own individually pursued leisure time activities
> _____Your organizational activities, for example, service clubs, church, etc.

As Table 38 shows 27 or half of the executives thought that others who knew them would think that work was the most important thing in their

TABLE 38

THE IMPORTANCE OF WORK TO EXECUTIVES
AS IT APPEARS TO OTHERS

How Important	Number	Percent
First	27	50
Second	24	44
Third	1	2
NA	2	4
Total	54	100

life. After answering this question the executives were asked to rank the same items in the order of their importance as perceived by themselves. Although the figures shift somewhat when executives are asked to rank what they themselves think is important, they still indicate that the executives are involved in their work. Taken together Tables 38 and 39 support the hypothesis that executives are highly involved in their work.[2]

TABLE 39

THE IMPORTANCE OF WORK TO EXECUTIVES
ACCORDING TO THEM

How Important	Number	Percent
First	17	31
Second	32	59
Third	3	6
NA	2	4
Total	54	100

[2]While it appears that executives are highly involved in their work this would not be particularly interesting if all other organization members were equally involved. The total survey of the five organizations, however, indicated that managers are more involved than either supervisors or non-supervisors. In Organization Five for example, 78 percent of all managers said they felt greatly or completely involved in their work, 41 percent of supervisors replied this way, and 29 percent of non-supervisors did. Managers have an average of 4 days a month when they do no work; supervisors and non-supervisors have an average of 7 such days. Managers put in an average of 4 days a month when they work 11-12 hours. Supervisors and non-supervisors average one such day every other month. Work is regarded as most important by 39 percent of the managers, 27 percent of the supervisors and 20 percent of the non-supervisors. With regard to what others think, 61 percent of the managers say others would think they put work first; 43 percent of supervisors and 28 percent of non-

The More Involved and the Less Involved

Before turning to an examination of the relationship between involvement and other variables it will be helpful to examine the relationship between the various involvement responses and then to see if responses can be combined so that the executives can be divided into two or three groups.

We may start by looking at the relationship between the data on time worked and the responses to the question asking how involved in his work the executive felt. When the responses are collapsed into two categories it is clear that executives who work longer hours are more likely to feel completely or at least greatly involved. Table 40 shows that an

TABLE 40

RELATIONSHIP BETWEEN FELT INVOLVEMENT AND TIME WORKED

Degree of Involvement	59 hours per week or less	60 hours per week or more	Total
Completely or greatly	17	14	31
Considerably or Moderately	15	3	18
Total	32	17	49[a]

Chi Square significant at better than .05 level of confidence.
[a]Five NA's omitted.

executive who puts in less than 60 hours a week is about as likely to feel considerably or moderately involved as he is to feel completely or greatly involved. But an executive who puts in over 60 hours a week is very likely to feel completely or greatly involved. This, of course, is what we might expect.

Turning to felt involvement in work and the importance of work rankings the relationship is not what we might have expected. An executive who is greatly or completely involved in his work is no more likely to say that work is first in importance in his life than he is to say

that it is second or third in importance. The figures in Table 41, however, should not be terribly surprising. It is not unreasonable to find that many executives can (and do) feel very involved in their work and still

TABLE 41

RELATIONSHIP BETWEEN FELT INVOLVEMENT IN WORK AND HOW IMPORTANT EXECUTIVE THINKS WORK IS IN HIS LIFE

Degree of Involvement	First in importance	Less than first	Total
Completely or greatly	12	21	33
Considerably or moderately	5	14	19
Total	17	35	52[a]

Chi square not significant.

[a]Two NA's omitted.

think their family is the most important thing in their lives. Neither is there any relationship between felt involvement and how the executives think others would rank them (Table 42.) Executives who say that they

TABLE 42

RELATIONSHIP BETWEEN FELT INVOLVEMENT IN WORK AND HOW IMPORTANT EXECUTIVE THINKS OTHER PEOPLE THINK HIS WORK IS TO HIM

Degree of Involvement	First in importance	Less than first	Total
Completely or greatly	18	14	32
Considerably or moderately	8	11	19
Total	26	25	51[a]

Chi square not significant.

[a]Three NA'S omitted.

are greatly or completely involved in their work may be somewhat more likely than other executives to say that others would think they put their work first in importance, but Table 42 is not statistically significant.

There is a clear relationship between importance of work and time worked. The executive who works over 60 hours per week is much more likely to say that work ranks first in his life than is the executive who works less than 60 hours a week (Table 43.) The executive who works less than

TABLE 43

RELATIONSHIP BETWEEN TIME WORKED AND HOW IMPORTANT EXECUTIVE THINKS WORK IS IN HIS LIFE

Work Week	First in importance	Less than first	Total
59 hours or less	5	26	31
60 hours or more	11	6	17
Total	16	32	48[a]

Chi square significant at better than .001 level of confidence.
[a]Six NA's omitted.

TABLE 44

RELATIONSHIP BETWEEN TIME WORKED AND HOW IMPORTANT EXECUTIVE THINKS OTHER PEOPLE THINK WORK IS TO HIM

Work Week	First in importance	Less than first	Total
59 hours or less	9	22	31
60 hours or more	15	2	17
Total	24	24	48[a]

Chi square significant at better than .001 level of confidence.
[a]Six NA's omitted.

60 hours a week is very likely to say that his work ranks second or third in importance in his life. Moreover, the executive who works more than 60 hours a week is very likely to say that other people would think he put his work first (Table 44).

Before leaving the analysis of relationships between the involvement items, the relationship between the executive's own ranking of the

importance of work in his life and his feeling for how others who know him would rank the importance of work in his life should be pointed out. Of the 27 executives who said that others who knew them would rank work first in importance in their lives, 17 said that it was the most important thing in their lives (Table 45). Ten executives said work was not the most

TABLE 45

RELATIONSHIP BETWEEN HOW IMPORTANT EXECUTIVES THINK WORK IS AND HOW IMPORTANT THEY THINK OTHERS WILL THINK IT IS TO THEM

What others think of executive	What executive thinks		Total
	Work is first	Less than first	
Work is first	17	10	27
Work is less than first	0	25	25
Total	17	35	52[a]

Chi square significant at better than .001 level of confidence.

[a]Two NA's omitted.

important thing in their lives, although they said that others might think it was. No executive said work was the most important thing in his life if he said that others would think work was not.

From the analysis so far we can say with some certainty that felt involvement is related to time worked (Table 40) and time worked is related to the importance of work in life (Table 43). Though there does not appear to be any relationship between felt involvement and importance of work in life (Table 41), all the items seem closely enough related so that we can consider the responses to all of them in calculating an executive's degree or strength of involvement. We can assume that the highly involved executive would indicate high involvement in response to all the items and, conversely, the weakly involved executive would indicate weak involvement in response to all the items. The model for a highly involved

executive is an executive who works over 60 hours a week, ranks his work first in importance in his life, thinks others would rank it the same way, and says that he is at least greatly involved in his work. The model for a weakly involved executive is an executive who works less than 50 hours a week, says that he ranks his family first, says that others who know him would do the same, and says that he is not greatly or completely involved in his work. Between these ideal types there are doubtless many degrees of involvement. But it seems best, because there are only 54 executives, to divide them into two groups--the more involved and the less involved.

In this study the responses to all four items concerned with involvement were considered and executives who on at least three items indicated high involvement were judged to be more involved. The remaining executives were judged to be less involved.[3] Divided by these criteria the population consists of 19 executives who are more involved and 35 executives who are less involved. Table 46 summarizes the differences between the more involved and the less involved. These two groups will be used in the analysis of the several hypotheses related to work involvement.

---

[3]In a few cases where information on every item was not available, the available information was considered. If information was not available on at least three items the executive was classified less involved.

TABLE 46

THE MORE INVOLVED AND THE LESS INVOLVED

Characteristic of executive	More Involved N=19	Less Involved N=35
Works more than 60 hours per week	15	2
Works 60 hours or less	3	29
NA	1	4
Ranks work first in importance in life	15	2
Ranks work less than first	4	31
NA	0	2
Says others would think he ranked work first	19	8
Says others would think he ranked work lower	0	25
NA	0	2
Says he is greatly involved	16	18
Says he is less involved	3	17

Career Identification and Work Involvement

Hypothesis 2.a. stated, "Whether an executive is an institutionalist or a specialist will not be related to his involvement." Although no past research suggested this hypothesis it was based on the assumption that executives might work long and hard either because of their organizational identification or because of their professional interests. As Table 47 shows, this hypothesis is not supported by the data. Involvement does seem to be related to career identification; the professionals seem much more likely to be highly involved than either of the other groups. The institutionalists seem least likely to be involved in their work. The data suggest, of course, a new hypothesis: Executives who identify as professionals will tend to be more involved in their work than will executives who identify as institutionalists.

TABLE 47

CAREER IDENTIFICATION RELATED TO WORK INVOLVEMENT

Identification	More Involved	Less Involved	Total
Institutionalist	2	13	15
Hybrid	10	20	30
Professional	7	2	9
Total	19	35	54

Chi square significant at better than .01 level of confidence.

In considering this hypothesis we should remember that professionals cluster in two organizations--Organizations Four and Five (Table 21). Institutionalists clustered in Organization Three and the hybrids clustered in Organizations One and Two. If the more involved executives also tend to be in Organizations Four and Five and the less involved in Organizations One, Two, and Three, then the relationship between career identification and work involvement may be indirect. If more involved executives cluster in Organization Four and Five then it may be that the organization contributes both to the professional identification and to a high degree of involvement, but that there is no necessary relationship between identification and involvement.

Organization and Work Involvement

Table 48 shows that half of the executives in Organization Five are more involved and about half are more involved in Organization One and Four. In Organization Two and Three very few of the executives are more involved. It should also be pointed out that of the 7 professionals who are more involved 6 are in Organizations Four and Five.[4] We should

[4] There seems little point in adding a table to the text to illustrate this point. The seventh more involved professional is in Organization Three. One of the less involved professionals is in Organization Five and the other in Organization Two.

be cautious, therefore, about concluding that there is a relationship only between career identification and work involvement. Certainly, even though the numbers are small we should not assume that there is no relationship between organization and involvement. Reference group

TABLE 48

WORK INVOLVEMENT OF EXECUTIVES BY ORGANIZATION

Organization	More Involved	Less Involved	Total
1	2	3	5
2	3	11	14
3	2	10	12
4	5	4	9
5	7	7	14
Total	19	35	54

Test not made.

theory could explain a relationship between work involvement and career identification, but it could also explain a relationship between work involvement and organization. Either profession or organization could be the normative reference group to which more involved executives are responding. The evidence does not suggest to which group they are responding. It would be interesting to discover in future investigations whether the organizations in which there is high involvement always also have larger numbers of professionals than do organizations in which there is lower involvement. It might also be of considerable practical value to be able to predict from career identification to work involvement pattern.

Rank, Age, Length of Service, and Work Involvement

Hypothesis 2.b. said, "Involvement will tend to increase with rank but decrease as age increases if rank is held constant." As Table 49 shows, there is a relationship between rank and work involvement; executives with higher rank tend to be more involved. Executives with lower

TABLE 49

WORK INVOLVEMENT RELATED TO RANK

Degree of Involvement	Office Chief and above	Division Chief and below	Total
More involved	14	5	19
Less involved	15	20	35
Total	29	25	54

Chi square significant at better than .05 level of confidence.

rank tend to be less involved. Of 19 more involved executives, 14 are office chiefs or higher. This finding must be considered in conjunction with the earlier finding of a relationship between career identification and rank. Table 20 showed that eight out of nine professionals were office chiefs or higher. This at least raises the possibility that rank may be a more important determinant of involvement than career identification. Of 19 more involved executives, 14 are office chiefs and higher and only 7 are professionals. Analysis also showed that these 7 professionals are also office chiefs or higher.

There are numerous reasons that might explain why higher ranking executives tend to be more involved than lower ranking executives. Thompson has suggested that executives who are more involved are those that want to get ahead.

> The very busy person is felt to be more dependable and loyal than the others. Consequently, it is advisable for those who want to get ahead to load their brief cases when they leave at night, and perhaps to come in for a few brief hours on the weekend.[5]

Personal factors may contribute to more involvement. Insecurity and anxiety, inability to organize, love of work, or even a shrewish wife may cause a man to stay long at his desk. Leaving aside these reasons,

---

[5]Thompson, op. cit., p. 144.

important though they may be, the higher involvement of higher ranking executives can be explained as an effect of changing role demands at different levels of the hierarchy. The demands on higher ranking executives may thus result in more involvement than the demands on lower ranking executives, but there is of course no one to one relationship between demands and performance. Since not all higher ranking executives are more involved other factors must also be operative.

We might suppose that age would also be related to involvement, but the data do not support this. As Table 50 shows age appears to have

TABLE 50

WORK INVOLVEMENT BY AGE

Degree of involvement	Less than 50 years	50 to 54.9 yrs.	55 years and over	Total
More involved	7	6	6	19
Less involved	11	12	12	35
Total	18	18	18	54

No test made.

TABLE 51

WORK INVOLVEMENT BY AGE OF DIVISION CHIEFS AND BELOW

Degree of involvement	49.5 years or less	50 to 54.9 years	55 years and over	Total
More involved	2	2	1	5
Less involved	7	10	3	20
Total	9	12	4	25

No test made.

no relation with involvement. Moreover, Table 51 suggests, albeit with very small numbers, that involvement does not decrease as age increases if rank is held constant. Division chiefs who are older are no more likely to be less involved than are division chiefs who are younger.

Age, however, may not be entirely unrelated to involvement. Although the differences involved are small and the table is not statistically significant Table 52 suggests that executives that are office chiefs or higher may be less involved when they are older than when they are younger. Older executives may begin to slow down.

TABLE 52

WORK INVOLVEMENT BY AGE OF OFFICE CHIEFS AND BELOW

Age and Rank	More Involved	Less Involved	Total
Office chief or above, 55 or over	5	9	14
Office chief or above, under 55	9	6	15
Total	14	15	29

Chi square not significant.

Perhaps the reason that age has little if any relationship with involvement is that age is only a rough indicator of another variable, length of service in the organization. Table 53 shows clearly that age and length of service are related, but it also shows that executives who have served more than 20 years are as likely to be under 55 years old as they are to be over 55 years old.

TABLE 53

RELATIONSHIP BETWEEN EXECUTIVE AGE AND LENGTH OF SERVICE IN ORGANIZATION

	Under 55 years old	55 years old or over	Total
Less than 20 years service	21	3	24
20 years service or more	15	15	30
Total	36	18	54

Chi square significant at better than .01 level of confidence.

The important point, however, is not that age is not an exact indicator of length of service but rather that length of service in an organization rather than age may be the variable that affects behavior in an organization. Indeed, age, except insofar as it may affect physical performance may be irrelevant. Table 54 supports the suggestion that length of service is related to involvement.

TABLE 54

WORK INVOLVEMENT RELATED TO LENGTH OF SERVICE IN ORGANIZATION

	Less than 20 years service	20 years service or more	Total
More involved	12	7	19
Less involved	12	23	35
Total	24	30	54

Chi square significant at better than .05 level of confidence.

Table 54 shows that executives with under twenty years service are likely to be more involved in their work than executives with more than twenty years service. We know already (Table 49), that executives who are office chiefs or higher are likely to be more involved than executives who are division chiefs or lower. These two findings suggest two predictions: 1) Executives in these five agencies who are office chiefs or higher and who have less than twenty years service will be more involved and 2) Executives who are division chiefs or lower and who have more than twenty years service will be less involved. Table 55 shows that these predictions are strongly borne out. Of the 11 executives who were predicted to be more involved, 9 are. Of the 12 executives who were predicted to be less involved, 10 are. Our initial hypothesis can be thus reformulated to state, "Executives of higher rank and shorter

service will be more involved in their work than executives of lower rank and longer service."

TABLE 55

WORK INVOLVEMENT RELATED TO RANK AND LENGTH OF SERVICE IN ORGANIZATION

Rank and service	More involved	Less involved	Total
Office chief and above Less than 20 years	9	2	11
Division chief and below 20 years or more	2	10	12
Total	11	12	23

Chi square significant at better than .01 level of confidence.

From the evidence available it is not possible to say whether the lower involvement of the executives who have not reached higher ranks in more than twenty years is a cause or an effect. Were they not promoted because they were not work involved? Or are they not work involved because they have not been promoted? A third possibility is that the lower involvement of these executives can be explained simply as their response to the role demands they feel. Since the first two alternatives assume that the demands placed on lower ranking executives are the same as those placed on higher ranking executives, the third alternative may be the soundest.

The effect of length of service on involvement can best be considered by looking only at executives of the same rank. As Table 56 shows the effect of length of service is striking. Executives with less than twenty years service tend to be more involved. Executives with more than twenty years service tend to be less involved.

TABLE 56

WORK INVOLVEMENT AND LENGTH OF SERVICE
OF OFFICE CHIEFS AND HIGHER

Service	More Involved	Less Involved	Total
Less than 20 years	9	2	11
20 years or more	5	13	18
Total	14	15	29

Chi square significant at better than .02 level of confidence.

However, if we look at division chiefs with longer and shorter service, length of service appears to have no effect on involvement. (Table 57).

TABLE 57

WORK INVOLVEMENT AND LENGTH OF SERVICE
OF DIVISION CHIEFS AND LOWER

Service	More Involved	Less involved	Total
Less than 20 years	3	11	14
20 years or more	2	9	11
Total	5	20	25

Test not made.

There seems little point here in wondering why the executives with higher rank and shorter service are more involved. Perhaps they have reached higher rank with shorter service because they are more involved. Perhaps their greater involvement compensates for lack of experience. Or have the executives with higher rank and longer service begun to slow down, to count the days until retirement? Would organizations benefit from greater turnover and from liberal provisions for early retirement? Or does the organization benefit from having some executives who are not highly involved? Does a combination of more involved and less involved executives yield a more harmonious group? These and similar questions seem worth asking.

Involvement and Job Satisfaction

The data presented in the preceding section might seem to suggest that executives with longer service and lower rank, the less involved executives, would have a lower level of job satisfaction. As Table 55 shows this is not the case. Tables 31 and 32 showed that a substantial majority of the executives are well satisfied with their jobs and Table 54 shows no relationship between job satisfaction, rank

TABLE 58

RANK AND LENGTH OF SERVICE
RELATED TO JOB SATISFACTION

Rank and service	Likes job very much	Other responses	Total
Office chief and above Less than 20 years service	7	4	11
Division chief and lower 20 years service or more	8	4	12
Total	15	8	23

Test not made.

and length of service. Both executives who tend to be more involved and executives who tend to be less involved tend to be satisfied with their jobs. These data, of course, suggest that work involvement will not be

TABLE 59

WORK INVOLVEMENT RELATED TO JOB SATISFACTION

Degree of involvement	Likes job very much	Other responses	Total
More involved	14	5	19
Less involved	27	8	35
Total	41	13	54

Test not made.

related to job satisfaction and Table 59 indicates that it is not. Whether executives are more involved or less involved they all tend to be satisfied with their jobs. The hypothesis, therefore, must be rejected.

Involvement and Job Challenge

Hypothesis 2.d. stated, "Executives who feel their work is challenging will tend to be more involved in it than executives who do not feel challenged." This hypothesis might almost be rejected by considering only the responses to a question about job challenge. In response to a question asking, "How challenging do you find your present work--in the sense of demanding concentration, intelligence, or energy?" 40 executives said that their work was extremely challenging and 8 more said that it was strongly challenging. Six said it was moderately challenging. No executives said that their work was either somewhat or only hardly challenging. Table 60 shows the lack of relationship between challenge and involvement. Of course, even though there appears to be no relationship, it would be improper to conclude that there is never any relationship between challenge and involvement. The finding here only points out that all of these executives feel rather highly challenged and that their involvement is not related to the challenges in their jobs.

TABLE 60

WORK INVOLVEMENT RELATED TO JOB CHALLENGE

Degree of Involvement	Extremely Challenging	Strongly or Moderately Challenging	Total
More involved	15	4	19
Less involved	25	10	35
Total	40	14	54

Test not made.

Involvement of Administrative Executives

Since we have already seen that administrative executives are most often institutionalists (Table 33) and are usually of lower rank (Table 35), we would expect the hypothesis that administrative executives would tend to be less involved to be supported. Table 61 shows that administrative executives tend to be less involved and the table shows that this tendency is stronger than it is in the case of other executives.

TABLE 61

WORK INVOLVEMENT AND ADMINISTRATIVE EXECUTIVES

Degree of Involvement	Administrative Executives	Other Executives	Total
More involved	2	17	19
Less involved	12	23	35
Total	14	40	54

Chi square significant at better than .10 level of confidence.

Conclusion

The first finding of this chapter was that career identification was related to involvement; professionals tended to be more involved and institutionalists and hybrids tended to be less involved. It was pointed out, however, that the professionals who were more involved were with one exception in Organizations Four and Five. It was suggested that the organization may affect both identification and involvement and the question was raised whether organizations that tend to have more involved executives tend also to have professionals.

More important were the findings that work involvement is related to rank and length of service. Executives with lower ranks and longer service are less involved than executives with higher ranks and shorter

service. That higher ranking executives tend to be more involved than lower ranking executives can be understood as an example of the impact of role demands on role performance. As the demands differ so does role performance. Conversely the differences in performance at different ranks make clear that the executives are playing different roles. Career identification, a facet of role conception, seems to play a less important part than rank in role performance. At least it may play a less immediate part. The higher ranking officers who are also professionals may have achieved high rank because of their career identification, but they may be involved because of their rank.

That length of service is related to involvement illustrates that performance is not affected by role demands alone. Length of service seems to affect an individual executive's reaction to the role demands he faces. Higher ranking executives tend to be more involved if they have shorter service and less involved if they have longer service.

These findings suggest that in individuals there may be what can be called an "involvement curve." Its peak is different for different individuals. The executive who never rises above division chief may never in his life be as work involved as a bureau chief, but each may have a peak and then involvement may begin to decline. On the other hand, it may be that some individuals because of personality factors are more involved in their work. Perhaps the more involved executives with less service have achieved their rank in less time because they are more work involved. In any event the effect of length of service on performance deserves continued study as does the effect of work involved individuals on the organization.

service. That higher ranking executives tend to be more involved than lower ranking executives can be understood as an example of the impact of role demands on role performance. As the demands differ so does role performance. Conversely the differences in performance at different ranks make clear that the executives are playing different roles. Career identification, a facet of role conception, seems to play a less important part than rank in role performance. At least it may play a less immediate part. The higher ranking officers who are also professionals may have achieved high rank because of their career identification, but they may be involved because of their rank.

That length of service is related to involvement illustrates that performance is not affected by role demands alone. Length of service seems to affect an individual executive's reaction to the role demands he faces. Higher ranking executives tend to be more involved if they have shorter service and less involved if they have longer service.

These findings suggest that in individuals there may be what can be called an "involvement curve." Its peak is different for different individuals. The executive who never rises above division chief may never in his life be as work involved as a bureau chief, but each may have a peak and then involvement may begin to decline. On the other hand, it may be that some individuals because of personality factors are more involved in their work. Perhaps the more involved executives with less service have achieved their rank in less time because they are more work involved. In any event the effect of length of service on performance deserves continued study as does the effect of work involved individuals on the organization.

The chapter also found that job satisfaction and job challenge were not related to work involvement. All this means, of course, is that work involvement is affected by things other than satisfaction and challenge. The practical result of this is that while a low level of job satisfaction or challenge may result in low involvement, a high level of satisfaction need not result in high involvement. This confirms what we have known for some time--that there is no necessary correlation between high job satisfaction and a high level of productivity. For a high level of work involvement satisfaction may be necessary but it is not sufficient.

CHAPTER VIII

EXECUTIVES AND BUREAUCRACY: RULES AND HIERARCHY

Science and Bureaucracy

In an earlier chapter the subject of science and bureaucracy was raised and the question was asked, "Is organized science bureaucratic science?" This question can only be touched on here, but the study would be incomplete if some attention were not given to it.

The characteristics of bureaucracy are too well known to warrant extensive comment. Specialization or division of labor is one of them, hierarchy is another, and formal rules and regulations are a third. Impersonality of relations with both clients and other officials and career employment based on technical qualification are other characteristics posited by Weber.

In considering bureaucracy in the five organizations all of these characteristics will not be examined. There are no data, for example, on the impersonality of the organizations or on their division of labor, but there is nothing in the literature on scientific organizations which suggests that it would be important to look at all these characteristics. The literature does devote considerable attention to hierarchy and to rule following and to the considerable variation in these characteristics that has been found in organizations. The data gathered in this study permit some consideration of these dimensions of bureaucracy. In particular, data collected on rule following behavior and on reason for obeying will be useful.

Rules and Organizations

The responses to one item in the questionnaire provide data that are relevant to rule following behavior. This item, identical to the one used by Slesinger in his study of the bureaucratic-program oriented dimension, asked the executives:

> In carrying out the functions and responsibilities of your job (or in doing your work), about how often do you personally find it reasonable and practical to deviate from some policy or procedure in order to do a more effective job?

It may be argued that policy and procedure and rules are all different and that to deviate from one says nothing about deviation from the others. Nevertheless, the assumption of this study is that they are related and that they all prescribe patterns of behavior. An executive may conform to prescribed patterns of behavior in varying degree--he may frequently deviate or he may never deviate. The question above was designed to determine frequency of deviation. Although it explicitly asks about deviation from policy or procedure, it can be argued that the responses are relevant to rule following behavior. In any event for reasons both of simplicity and style the phrase "rule following behavior" will be used.

Table 62 shows that over half of the executives say that they

TABLE 62

DISTRIBUTION OF RESPONSES TO FREQUENCY OF DEVIATION ITEM

Response	Number	Per cent
I frequently deviate from some policy or procedure	0	0
Fairly often	4	7
Occasionally	29	54
Hardly ever	14	26
I never deviate from a policy or procedure	6	11
NA	1	2
Total	54	100

occasionally deviate from policy or procedure and about a quarter say that they hardly ever do. There are more executives who say they never deviate than there are executives who say they deviate fairly often or frequently. Table 63 shows how these responses are distributed by

TABLE 63

DEVIATION FROM RULES RELATED TO ORGANIZATION

Organization	Occasionally deviate	Hardly ever deviate	Total
1	4	1	5
2	11	3	14
3	5	6	11
4	3	6	9
5	10	4	14
Total	33	20	53[a]

[a]Test not made,
[a]One NA omitted.

organization. In Organizations One, Two, and Five the executives may tend to deviate from rules. In Organization Four they may tend not to deviate. In Organization Three no tendency appears.

Although the limited data prevent it from being satisfactorily tested, the hypothesis that there would tend to be agreement within organizations but that there might be differences among the organizations should probably not be rejected. Information collected in the interviews supports the hypothesis and suggests that the executives in different organizations will differ. In Organization Two, one division chief pointed out that the bureau chief and his deputy tried to provide "the relaxed atmosphere that scientists like."[1] It is probably not insignificant either that the location of this organization is referred to as "the campus." Another respondent in the organization said, "Well you can't bother professionals with a lot of red tape, a lot of rules

[1]Interview No. 42.

and regulations. They like freedom. I suppose that's one of the big things, to arrive at an atmosphere of freedom."[2] It goes almost without saying that if the executives in his organization had indicated that they never deviated from the rules it would have been surprising.

In Organization Five one respondent said that the chief had been determined to make it a non-military agency.[3] (It had originated in the army in the 19th century.) The respondent said that the chief had wiped out much of the tightly disciplined atmosphere and had tried to make the organization more democratic. Two quotations from the chief himself seem pertinent.

> While I certainly had a respect for rules, regulations, and procedures, I've always been somewhat of a zealot, I suppose, in making sure that rules served you and you didn't serve the rules. In other words, I haven't hesitated to tell my own people to find a way around a rule, if it obviously didn't fit and the occasion required action.
>
> . . . . . .
>
> I have always been, I think, perhaps a little strong in my antipathy to what's usually called bureaucracy. I've tried to avoid it, I've been accused of it, I don't think I've been guilty of it.[4]

Organization Four contrasted sharply with this. From the 1930's until 1950 this organization had a chief who was described as an autocrat and who was said to have left an imprint on the bureau.[5] The present director of Organization Four is, if not an autocrat, at least not a democrat. One respondent referred to Organization Four as "an autocratic organization."[6] Moreover, it must be remembered that Organization Four

---

[2]Interview No. 47.

[3]From an exploratory interview.

[4]Both from Interview No. 12.

[5]From an exploratory interview.

[6]Interview No. 21.

has in it commissioned officers.

Unlike the executives in the other organizations, the executives in Organization Three do not cluster. Out of 11 executives, 5 occasionally deviate and 6 hardly ever do. A possible reason may be that in this organization there is no clear rule following behavior norm; another may be that there are different norms for different executives. The data available do not allow us to choose either of these alternatives, but they both suggest a qualification for the original hypothesis. Executives in the same organization will tend to exhibit similar rule following behavior if such behavior is controlled by an organizational norm. If there is no relevant norm there will be no agreement.

According to the pattern of the previous chapters examination of additional hypotheses concerning rule following behavior would follow the examination of the initial hypothesis, but this chapter deviates from that pattern. Before continuing the analysis of rule following, reason for obeying and its variation by organization will be examined.

The Data on Reason for Obeying

An executive, as any other organizational member, may obey his superior for several reasons. He may obey because of the superior's position or because of his knowledge and skill or because he respects his superior as a person. To find out why the executives in this study obey their superiors the following question was asked.

> Listed below are five reasons generally given by people when they are asked why they do the things their superiors suggest or want them to do. Please read all five carefully. Then number them according to their importance to you as reasons for doing the things your immediate superior suggests or wants you to do.
>
> GIVE RANK 1 TO THE MOST IMPORTANT FACTOR, 2 TO THE NEXT MOST IMPORTANT AND SO ON. . . GIVING A RANK OF 5 TO THE LEAST IMPORTANT.

I do the things my superior suggests or wants me to do because:

(a) I respect his competence and good judgment, particularly about things with which he is more experienced than I

(b) I admire him for his personal qualities and want to act in a way that merits his respect and admiration

(c) He is in a good position to recommend promotions and/or step increases based on his knowledge of my work

(d) He can apply pressure and penalize those who do not co-operate

(e) I respect his authority, which gives him the right to expect that his suggestions will be carried out

For the purposes of analysis it was assumed that response (a) indicates expertise or competence and response (e) indicates respect for hierarchical position. Responses (c) and (d) are related to respect for hierarchical position, but (c) refers explicitly to promotive or reward power and (d) refers to coercive power. It was assumed that in a population of senior executives promotive and coercive power would not be thought to have great importance and that this would be true even though hierarchical authority might be important.

Table 64 shows that almost the same number of executives obey

TABLE 64

WHY EXECUTIVES OBEY

Reason	Ranking of Importance						Mean Rank
	1	2	3	4	5	NA	
(a)Competence, expertise	22	18	5	1	5	3	2
(b)Personal admiration	6	8	31	4	3	2	2.81
(c)Promotive power	0	1	5	28	15	5	4.16
(d)Coercive power	1	5	1	15	28	4	4.28
(e)Hierarchical authority	24	20	9	0	0	1	1.78

for reasons of expertise as obey for reasons of hierarchical position. It is not possible to say with any certainty that hierarchical authority is a more important reason for obeying. Personal admiration is the third most important reason for obeying. Promotive power is fourth and coercive power is clearly the least most important reason for following instructions at the senior executive level.

Organization and Reason for Obeying

Among the 54 executives taken as a group, competence and hierarchical position may be almost equally important. Yet, taken organization by organization the reasons for obeying appear to vary. Initially no hypotheses relating the organization to reason for obeying were formulated. But since organizational membership may be related to rule following behavior, it is relevant to look also at organization and reason for obeying.

Using the analysis of rule following behavior as a guide, we might hypothesize that the executives in each organization will tend to obey for the same reason, but that the executives in different organizations may obey for a different reason. Table 65 suggests that

TABLE 65

MOST IMPORTANT REASON FOR OBEYING BY ORGANIZATION

Organization	Competence	Hierarchical Authority	Total
1	3	2	5
2	5	7	12
3	1	6	7
4	3	6	9
5	10	3	13
Total	22	24	46[a]

Test not made.

[a]Eight NA's omitted.

in Organization Three and Four, executives may tend to obey their superior because of his position. The executives in Organization Five may tend to obey their superior because of his competence. In Organization Two the tendency for executives to obey for reasons of hierarchial authority is at best weak. The distribution of responses in Table 65 may be random, but our knowledge of the organizations can account for the distribution of responses. The earlier discussion that pertained to Organization Four and Five also applies here. Organization Four is semi-military and said to be autocratic. The chief in Organization Five has tried to make the organization democratic and to get away from military discipline.

But if our knowledge of Organizations Four and Five can explain the figures in Table 65, there is difficulty with Organization Two. On the basis of our knowledge of this organization we might have expected that its executives would obey for the reason of competence. The head of this organization and his deputy are scientists and the division chiefs, who exercise considerable influence in running the organization, are also scientists; yet 7 of 12 of the executives say they obey their superior because they respect his position.

Some observations of Talcott Parson suggest an explanation. In his article "Suggestions for a Sociological Approach to the Theory of Organizations," Parsons wrote that "specialization in the functions of administration or management precludes the incumbent of these functions from also carrying out the main technical procedures involved in the organization-goal, and hence making the main operating decisions at the 'work' level."[7] Parsons suggests that there are allocative organizations or mechanisms "by which resources are distributed within the organization

---

[7]Talcott Parsons, "Suggestions for a Sociological Approach to the Theory of Organizations," Administrative Science Quarterly, 1 (1956), p. 77.

and responsibility for their utilization in the various operative tasks is assigned."[8] Parsons noted that these mechanisms of allocation are related to delegation, but are more than that because technical performance is not delegatable. As an example he noted that a university president who has been a professor of English does not "delegate" authority to the physics professors.

> Both must recognize an independent technical basis for "lower" echelons performing functions in the ways in which their own technical judgment makes advisable. The technical man can reasonably be held responsible for the results of his operation; he cannot, however, be "dictated" to with respect to the technical procedures by which he achieves these results.[9]

Implicit in Parson's writing is the notion that if the physics professor (or more likely his chairman) is asked why he does what the president suggests, he will say something about his position; he will not refer to his technical competence. What this means is that he will obey for hierarchical reasons. But it is also important to note that he may obey for these reasons only when hierarchical authority is relevant and technical competence is irrelevant. When technical competence is relevant he may not receive suggestions or instructions.

Organization Two may be likened to a university; its professional staff may be likened to administration and faculty. Because a number of disciplines are represented in the organization, an executive's superior may have training and competence in a completely different area. Like the university president or a dean he may be obeyed, when he gives instructions, because of his position. The comparatively large number of executives that do obey for reasons of competence may be explained by remembering that the organization is almost totally concerned with the physical sciences. In many cases, it is likely that an executive's superior will be trained in the same area in which the executive is

---

[8] Ibid.

[9] Ibid., pp. 77-78.

trained. In these cases the superior may give suggestions that otherwise he would not presume to, and he may be obeyed because of his competence.

These comments are also relevant to Organization Five. No doubt it is important that an attempt is made in this organization to have a democratic atmosphere. But it may also be important that Organization Five is very nearly a single purpose organization. Most of the executives are trained in the same field and there is not the variety of disciplines that exists in Organization Two. When superior and subordinates are trained in the same discipline the subordinate may be more likely to obey for reasons of competence.

It is hard to say why the executives in Organization Three obey for reasons of hierarchy. Parsons's observations do not apply to this organization. It may be, of course, that executives in the organization simply think that their superiors are incompetent. Leaving this aside, it may be important that Organization Three is the only organization that has a short term politically appointed head. Two of the assistant heads have been appointed by the present head and have been in office only a short time. Other executives gained their positions as a result of the reorganization. Under such circumstances it is not surprising that superiors are obeyed because of their positions rather than because of what they know. If the organization had not been in a state of flux when the data were collected the response might have been different.

Bureaucracy and Organizational Activity

Researchers in the past have suggested that bureaucratization is related to the kind of activity carried on by the organization.[10] With

---

[10] Supra, pp. 16-17, expecially fn. 3 and 8.

this as a working hypothesis we can inquire into the bureaucratic behavior of the executives in the five organizations. First, of course, it will be necessary to distinguish different types of scientific activities, different types of scientific organizations. The most important distinction for our purposes here is between organizations that contribute to science, that contribute to knowledge, and organizations that use science, that use or consume knowledge but do not contribute to it. Certainly this is not a clear and absolute distinction. Organizations that use science may not produce science, but it is hard to imagine an organization that produced science that did not also use it. Perhaps the precise distinction is between organizations that only use science and those that both use and produce science. A third kind of scientific organization is harder to describe clearly. It is concerned with science, it deals with science but neither uses nor produces it.

The five organizations represent all three of these types. Organization Two contributes to science, Organizations Four and Five mainly use science and Organizations One and Three are concerned with science. Again it should be emphasized that these are not hard and fast distinctions. Neither are there clear cut measurements of these distinctions. Yet the responses to one item in the questionnaire support this description of the organizations.

In the questionnaire the respondents were asked to respond to an item asking how much their present job provided each of several job opportunities that were listed. Relevant here are the responses to an item that asked about opportunity to contribute to broad technical knowledge in the respondent's field. It was assumed that many respondents in science producing organizations would indicate that their job

provided much opportunity to contribute to knowledge and that many respondents in science concerned organizations would indicate almost no opportunity. It was assumed further that respondents in science using organizations would come out somewhere in between.

To describe the organizations as accurately as possible the responses of all non-supervisory (N) and supervisory (S) personnel who filled out the questionnaire were used. The responses, shown in Table 66, indicate that the respondents in Organization Two, the science

TABLE 66

DISTRIBUTION OF RESPONSES TO ITEM ASKING ABOUT OPPORTUNITY TO CONTRIBUTE TO TECHNICAL KNOWLEDGE

To what extent does your present job actually provide an opportunity to contribute to broad technical knowledge in your field?

Response	Organization									
	2		5		4		1		3	
	N	S	N	S	N	S	N	S	N	S
	Percent									
Provides slight opportunity or none	16	2	40	17	46	17	48	27	66	49
Moderate	23	11	30	35	30	35	23	46	16	34
Considerable	31	36	20	29	14	25	20	9	11	11
Great	19	41	8	15	8	17	6	9	5	6
Provides utmost opportunity	10	10	2	3	2	4	3	0	1	0
NA	1	0	0	1	0	2	0	9	1	0
Total	100	100	100	100	100	100	100	100	100	100
N=	166	61	168	76	123	75	35	11	98	126

producing organization, have the most opportunity to contribute to technical knowledge. The opportunities of respondents in Organizations Four and Five, the science using organizations, are about equal and fewer than

the opportunities in Organization Two. In Organization One, a science concerned organization, the opportunities to contribute to knowledge are less than in the science using organizations, but greater than in Organization Three, the other science concerned organization. In Organization Three there seems to be little opportunity to contribute to knowledge.

These differences in activity seem to have little relationship with differences in the bureaucratic behavior of the executives. The executives in Organization Two tend to be not bureaucratic on the rule following dimension, which is what we might expect, but the executives in Organizations Four and Five differ considerably as do the executives in Organizations One and Three (Table 63). In fact, the executives in Organizations One and Five resemble the executives in Organization Two on the rule following dimension. Apparently, this dimension is not affected by activity. Organizations Four and Five, and One and Three also differ from each other on the reason for obeying dimension (Table 65). And as we saw, many executives in Organization Two obey their superior because of his position.

The findings indicate that executives in scientific organizations need not be bureaucratic, but that they may be. Beyond this, the findings also indicate that the distinction between science producing and science using organizations may not be related to bureaucratic behavior. This is not to say that bureaucratic behavior is not related to activity, but it suggests that activity differences which affect bureaucratic behavior may have to be rather gross. The specific activities of organizations composed of professionally trained personnel, however, may not account for differences in degree of bureaucratic behavior.

If differences in the activities of the organizations do not account for differences in the degree of bureaucratic behavior among these executives what can account for the differences? Why may executives in ostensibly equivalent positions in different organizations exhibit different behavior? Several reasons can be suggested. How do fellow executives act, and, at least inferentially, how do they expect colleagues to act? Beyond or perhaps behind group pressure there is organizational history and tradition. What has the organization been, how have executives acted in the past? Tradition must have substantial impact, particularly if executives have long tenure and turnover is only gradual so that newcomers are always surrounded by executives already indoctrinated or socialized. A complete change of executive personnel might result in almost total redefinition of many roles, but with personnel only gradually changing, roles may only evolve.

Mention of history leads to biography. Organizations may on occasion be much influenced by forceful chief executives. A chief executive's approach to management can be taken over by subordinates and copied also by successors. Two bureaus with chiefs quite different may have quite different organizational environmnets. If one is autocratic and one is democratic it is easy to imagine that other executive roles in the organizations would also show differences.

Career Identification and Rule Following

This chapter has so far been concerned with bureaucratic behavior in the five organizations. The remainder of this chapter is concerned with the relationship between bureaucratic behavior and individual variables. It examines data relevant to the hypotheses in Chapter IV.

Hypothesis 3.a. predicted, "Institutionalists will tend to obey

rules and regulations and professionals will tend to deviate from rules and regulations." According to the data in Table 67, the hypothesis

TABLE 67

CAREER IDENTIFICATION AND RULE FOLLOWING

Career Identification	Occasionally deviate	Hardly ever deviate	Total
Institutionalists	11	4	15
Hybrids	20	9	29
Professionals	2	7	9
Total	33	20	53[a]

Chi square significant at better than .05 level of confidence.
[a]One NA omitted.

must be rejected. Indeed, the opposite hypothesis fits the data. Institutionalists and hybrids tend to deviate occasionally; professionals tend to deviate hardly ever. The hypothesis that professionals will tend to follow the rules more often than institutionalists seems obvious.

The original hypothesis was formulated on the assumption that executives in scientific and technical organizations who identified as professionals would have the attitudes and values of scientists. The sociology of science suggests that scientists are quick to question and do not hesitate to deviate from rules and regulations. On the other hand, it was assumed that institutionalists would, because they identified with the organization, deviate from the rules of the organization infrequently, if at all.

These assumptions now appear erroneous and the data in Table 67 require explanation. Why should a professional hardly ever deviate from the rules? One alternative is that the values of science determine this behavior, but this should be discounted. Another more attractive alternative is that the executives in this study who identify as professionals are not identifying as scientists or at least are not guided by the

values of science in their administrative behavior. This is an attractive explanation because it suggests where the original hypothesis may have erred.

The original hypothesis assumed that all professionals would tend to have the same values, and that all institutionalists would tend to have the same values. Obviously (now) this is too simple. The data in Table 67 suggest that before predictions about the rule following behavior of institutionalists and professionals can be made, information on the values or norms of the focus of identification is necessary. Professional soldiers may act one way, lawyers another, and scientists a third. Institutionalists may also differ depending on the norms of the organization with which they identify. If this is so then the findings in Table 67 are not surprising. Indeed they might have been predicted if information on the norms of the focus of identification had been available and considered. These observations suggest that career identification and rule following are not independent dimensions.

Education and Rule Following

Even though the professionals in this study tend to follow the rules we might still expect that, as hypothesis 2.b. stated, "Executives with more education will deviate from rules and regulations more than will executives with less education." Data already examined suggest that this hypothesis may be supported. The executives in Organization Two almost all have the Ph.D. and a large proportion of these executives say that they occasionally deviate from policy and procedures. The executives in Organization Four have a lower level of education and, more often than in other organizations, these executives hardly ever deviate. Table 68, however, presents data that show no relationship between

TABLE 68

RULE FOLLOWING BEHAVIOR BY EDUCATION

Education level	Occasionally deviate	Hardly ever deviate	Total
Master's and above	20	13	33
Below master's	13	7	20
Total	33	20	53[a]

[a]Test not made.
One NA omitted.

level of education and rule following behavior.

We may well wonder why there is no relationship between rule following behavior and education. One reason for the lack of relationship may be that even if education does effect rule following behavior the effect may not appear in this population. The difference between a year of graduate study and getting a master's is slight, and even the difference between an A.B. and a Ph.D. may not be great in terms of the effect on rule following behavior. Among these executives such variables as organization and career identification may be considerably more important than their education in explaining their rule following behavior.

Another point is that Table 68 groups education into two categories and doing this may conceal interesting differences among the executives. Dividing education into two categories, for example, conceals the fact that 10 out of 13 Ph.D.'s occasionally deviate; 6 out of 10 lawyers hardly ever deviate. These figures suggest that it may be necessary to know not only how much education an individual has, but in what fields he has it, before education can be used to more than roughly predict behavior.

Administrative Executives and Rule Following

Table 69 shows that there is no relationship between

TABLE 69

ADMINISTRATIVE EXECUTIVES AND RULE FOLLOWING

Position	Occasionally deviate	Hardly ever deviate	Total
Administrative executives	9	5	14
All other executives	24	15	39
Total	33	20	53[a]

No test made.
[a]One NA omitted.

frequency of deviation and whether an executive is an administrative executive. An administrative executive is as likely to deviate as any other executive according to these data; the hypothesis that administrative executives in these five agencies would deviate less than other executives must be rejected. These findings are of interest because they suggest that administrative executives may be more flexible than often they are given credit for being. Perhaps a few inflexible ones give the lot a reputation.

These findings are also interesting because they allow the suggestion that, at least at the executive levels, the role demands relevant to rule following behavior do not vary by position or by level. In this respect they are unlike the role demands relevant to work involvement. In the last chapter we saw that the involvement of administrative executives in particular and of lower ranking executives in general was lower than the involvement of higher ranking executives. The data in Table 69 suggest, however, that there will be no relationship between rule following behavior and position or rank. The data in Table 70 do indicate a slight relationship between rule following and rank but nothing nearly as strong as the relationship between rank and

TABLE 70

RULE FOLLOWING BEHAVIOR OF EXECUTIVES BY RANK

Rank	Occasionally deviates	Hardly ever deviates	Total
Office Chief and above	15	13	28
Office Chief and below	18	7	25
Total	33	20	53[a]

Chi square significant at better than .2 level of confidence.
[a]One NA omitted.

work involvement. Certainly it would be much more hazardous to predict from rank to rule following behavior than to predict from rank to work involvement.

Reason for Obeying, Career Identification, and Education

The initial hypothesis concerning reason for obeying predicted that more executives would say the hierarchical position of their superior was the most important reason they obeyed him, than would say any other reason was the most important. Although the hypothesis did predict the direction of the ranking, almost as many executives said that competence was the most important reason. Hierarchical authority may be, as Thompson and Presthus observe, more important than in the past, but, according to the data here, it has not become all important in the five agencies.

Hypothesis 4.a. predicted that more institutionalists than other executives would tend to think that the hierarchical position of their superior was the most important reason for obeying him. Table 71 shows that the hypothesis cannot be supported. Professionals seem as likely to obey for reasons of hierarchical authority. An executive's reason for obeying also appears to be unrelated to his education.

TABLE 71

REASON FOR OBEYING BY CAREER IDENTIFICATION

Identification	Competence	Hierarchical authority	Total
Institutionalist	4	7	11
Hybrid	15	12	27
Professional	3	5	8
Total	22	24	46[a]

Chi square not significant.
[a]Eight NA's omitted.

Hypothesis 4.b. said, "Executives with more education will tend to think that the hierarchical position of their superior is a less important reason for obeying him than will executives with less education." This hypothesis must be rejected. As Table 72 shows the executive with

TABLE 72

REASON FOR OBEYING BY EDUCATION

Reason for obeying	Master's and above	Below Master's	Total
Competence	12	10	22
Hierarchical authority	15	9	24
Total	27	19	46[a]

Chi Square not significant.
[a]Eight NA's omitted.

more than a master's is no more likely to say that he obeys his superior because of his competence and experience than is the executive with less than a master's.

The lack of relationship between reason for obeying and both career identification and education prompts speculation about what may affect it. It may be that to approach reason for obeying from the standpoint of the subordinate is to err. It might be better approached from the superior's standpoint. If we think about an executive with several subordinates, we assume in the first instance that, depending

their education or career identification or whatever, they will obey him for different reasons. But this may be in error. It may be equally legitimate to assume that a given superior will be obeyed for reasons related to his own behavior and personal characteristics. If this is so then we would be unable to predict why a subordinate would obey, no matter what his education and career identification, unless we had information on his superior.

Administrative Executives and Reason for Obeying

Hypothesis 4.c. predicted that administrative executives would tend to think hierarchical position was a more important reason for obeying their superior than other executives would. As Table 73 shows

TABLE 73

REASON FOR OBEYING AND ADMINISTRATIVE EXECUTIVES

Position	Competence	Hierarchical authority	Total
Administrative executives	4	8	12
All others	18	16	34
Total	22	24	46[a]

Chi square not significant.
[a]Eight NA's omitted.

the relationship is not statistically significant, but the prediction was in the right direction. As the original discussion of this hypothesis pointed out, it would have been surprising if personnel officers and budget officers usually obeyed their superiors because of their competence.

Conclusion

This chapter has briefly looked at two dimensions of bureaucratic behavior--rule following and obedience to superiors. On these dimensions

the executives differ considerably among themselves. Some say they never deviate from rules, some say they deviate fairly often. About half of the executives obey their immediate superior because of his position, about half because of his competence.

The main point of the chapter is that executives in scientific organizations may behave bureaucratically, but that they will do so is not a foregone conclusion. The findings illustrate, as do other findings in this study, the hazards involved in generalizing about executives, even executives in scientific organizations. Data in this chapter suggest that because of differences among organizations fruitful studies of executives will in the future be carried on in particular organizations and be accompanied by studies of the organizations in which the executives are.

CHAPTER IX

THE STUDY OF EXECUTIVES: A SUMMARY CONCLUSION

This study has reported data obtained from a population of executives in five scientific and technical bureaus of the federal government. The obvious value of the data and analyses lies in the light they may shed on the roles of these executives. More generally the study is relevant to the study of organizational behavior and to the management of scientific and professional organizations. The study also permits some observations about government executives and civil servants. This final chapter reviews the study in these terms and suggests some directions that future research might take.

Executive Roles

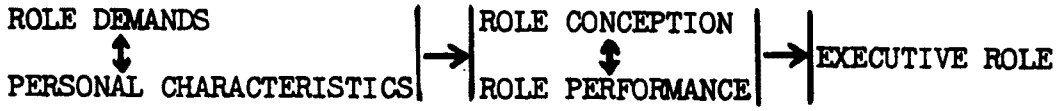
The different responses of executives in different ranks and different organizations and with different career identifications to the questions they were asked make clear that when we speak generally of government executives many differences between executives may be concealed. These differences may be at least as interesting as any similarities. To speak only of variations on a theme as Warner and his associates do may be to by-pass the interesting for the dull, the new for the well-known. The price of generalization is too often concealment and distortion. Perhaps this is another way of saying that statements about executives in general are not likely to be very helpful.

Even to divide executives into types can be dangerous. It is convenient, of course, to have types. This study has dealt with several; the institutionalist and the professional, the more involved and the less involved. It must be remembered, however, that these types may combine in various ways to form, together with characteristics not examined, numerous executive roles. The possible number of different executive roles may for practical purposes be limitless. Any global typology may necessarily be so simplified as to be useless at best and misleading at worst. This conclusion, therefore, offers no typology by which the executives in this study can be divided.

But if the research in this study does not point to types of executive roles, it does permit some comment on how executive roles are defined or formed. The first chapter of this study gave attention to role demands and personal role definition and pointed out the importance of both. It was said that a role was defined by role demands, role conception, and role performance. In general this is true, of course, but this study suggests that it may be more accurate to say that role demands influence the conceptions and performance associated with a role. This may be particularly true in a formal organization where demands may be quite explicit and indeed forceful. In this study the clearest example of the influence of role demands was in the relationship between rank and work involvement; the higher ranking executives tended to be more involved than the lower ranking executives. It was suggested also that in different organizations executives may feel different demands and thus play different roles.

Of course not only demands influence the conception and performance of a role. Personal characteristics also are important. Length of service, for example, was related to involvement. If we take

role demands and personal characteristics as given then we can hypothesize that role performance and role conception result from them. The diagram suggested in Chapter I may thus be altered to the form below. An implication of the diagram is that personal role definition includes more



than role conception and role performance. It includes also the personal characteristics which may affect the interpretation of role demands, as well as in some measure determine the demands to which the executive is exposed.

If role demands and personal characteristics influence conception and performance what can be said about the relations between these dimensions? Although there undoubtedly is mutual influence--conception affects performance and performance affects conception--this study provides little basis for drawing conclusions. To dwell here on the relations between the two would be no more fruitful than to dwell on the hen and egg puzzle.

The foregoing comments suggest, if they have any validity, a direction that future research on executives might take. Rather than focusing, as often in the past, on what some executives do or how some executives behave and then attempting to make general statements, it may be more fruitful to focus on the relationships between demands, personal characteristics (both demographic and personality variables) and performance. The aim would be to predict the latter when the former are known. One of the first problems will be the analysis of executive performance, and this is not a simple problem as Levinson has emphasized. It is a crucial task, however, since different demands and characteristics may affect different dimensions of performance. Rank, as we saw, affected

work involvement, but not reason for obeying. Another task is to learn how to analyze both role demands and the individual's capacity for coping with them.

Research along these lines will have considerable relevance for management and personnel policy. Promotions, for example, are often based on past performance, among other things, but performance in one role may be a poor basis for predicting performance in another role. Rather what is needed is analysis of the roles to determine how similar or different their demands are and, if they are different, an evaluation of the individual in terms of his ability to cope with the demands of the new role.

Not only promotions but moves from one organization to another might also benefit from role analysis. The data in this study seem to suggest that executives in any particular organization may tend to behave alike on particular variables and yet may behave differently from executives in other organizations. If this is so it may be because organizational demands or requirements for executive performance are different in different organizations. If we assume that not all individuals could adjust to a particular set of demands then it is possible that an executive successful in one organization might be unsuccessful in another. Indeed, the well-adjusted man in one organization might be miserable and a failure in another. These possibilities point to the hazards or difficulties involved in moving and suggest one explanation for the lack of mobility in the federal service.

The Study of Executives, Organizations, and Politics

As a study of executives it would at best be inaccurate to view this study as a study of organizations, but it would also be inaccurate

to think that it was not relevant to the study of organizations. At one level, in simply providing information about organization members, it provides grist for organizational theorists. Particularly relevant is the material on career identity.

Research and theory about organizations must certainly consider the organizationally identified and the professionally identified, and the consequences for the organizations of having members with different identities. One consequence, for example, may be that the organization which employs highly trained or professional personnel may be employing personnel with individual and professional identities; personnel, that is, who may not need or want an organizational identity. This suggests that the function of maintaining the organization may be more difficult when the members are professionally identified or at least not organizationally identified. Does the organization cope with this by trying to develop organizational identities? Does it raise to leadership positions those who do become organizationally identified? This study does not answer these questions but it raises them.

The findings in this study indicate, not surprisingly, that education is an important source for an individual's identity and they also suggest that the more specialized (perhaps the more professional) the education, the more likely it is to influence an individual's identity. The education of employees is not of interest solely because of the effect it has on their career identification. It may have an effect also on the employees' reaction to bureaucratic practices within the organization.

Seymour Martin Lipset has reviewed much research devoted to education and political behavior and concluded that "the most important single factor differentiating those giving democratic responses from the others has been education. The higher one's education, the more

likely one is to believe in democratic values and support democratic practices. All the relevant studies indicate that education is more significant than either income or occupation."[1] If we assume that the more bureaucratic behavior is, the less democratic it is, then we can hypothesize that the higher the educational level of personnel in an organization the less acceptable will be bureaucratic behavior on the part of supervisors and executives. We can predict that bureaucratic behavior in a professional organization will result in dissatisfaction and low morale.

These hypotheses cannot be tested here, but Organization Three furnishes support.[2] Knowing that this organization has a high turnover rate and low morale gives added interest to a quotation from one of the interviews in this organization.

> Our professional people are treated professionally, but we soon find out, this is terrible, terrible, but we seem to find out that you have to make rules and regulations for professional people just like you do for others.
> . . . . . .
> Well, for example, if I was treated professionally I wouldn't have to observe hours, would I? But we find out that we do have to make regulations about observing them. If I was treated professionally the quantity of my work would not be measured with a yardstick, but we find that it does have to be and the quality of their work the same way.[3]

It should be emphasized that not all characteristics of bureaucracy are in conflict with democratic values. Specialization, a career system, even impersonality, may be perfectly acceptable to personnel who hold

---

[1]Seymour Martin Lipset, Political Man (New York, 1963), p. 40.

[2]Organization Four apparently does not have the personnel problems of Organization Three, but is more bureaucratized. It does not provide a fair test, however, since it may not attract men who would be dissatisfied with an undemocratic military atmosphere.

[3]Interview No. 33.

democratic values. An organization composed of highly educated personnel may still exhibit these characteristics in great degree.

The management implications of these comments are important. Organizations composed of educated personnel probably cannot be managed as though they were no different from organizations composed of uneducated personnel. Educated personnel may want, indeed require, more discretion than other employees. Moreover, in the government it may not be enough for executives in bureaus to be aware of the differences that education may make. It may also be necessary for the civil service as a whole to make provision for a work force with an increasingly high level of education and one with, perhaps, higher needs for autonomy and individual integrity.[4] On this point, the words of one executive are interesting.

> Well, within our own relatively narrow bailiwick we just try and bend the regulations to the point where it is a tolerable environment, but there are lots of times these things are just continuously ...there are restrictions here, restrictions there, and questions here or there...I mean even in our own planning, if we plan for so many trips of certain individuals to go certain places we still have to justify them over again, two times, three times. And this is just a nuisance if nothing else. Now some of us make it our business to stand between our best personnel and these annoyances. But somewhere these annoyances have to be fought. I think even a single agency cannot entirely handle this. This is a matter of a recognition on behalf of the Congress that they have to treat us a little differently.[5]

The sum of these observations is that management theory and practice must take cognizance of the educated employee. But before practice can be much more than trial and error, considerable research is necessary. In particular it seems necessary to study carefully

---

[4]For similar recommendations see Franklin P. Kilpatrick, Milton C. Cummings, Jr., M. Kent Jennings, The Image of the Federal Service (Washington, 1964), pp. 243-244.

[5]Interview No. 09.

the response of educated organization members to a restrictive organizational environment.

Not only does this study give information about organizational members, it also illustrates that it may be as difficult to make informative general statements about organizations as it is to make them about executives. Even the five organizations in this study, which would appear to be in the same class--professional organizations--are different on at least one dimension. The members of each have different opportunities to contribute to technical knowledge. That even these organizations differ suggests that attention must be given to the comparative study of organizations and particularly to the establishment of dimensions along which they can be compared. Such study may have to proceed concurrently with study of executives.

At another level this study is also relevant to the study of organizations because role analysis is one way of approaching organizational analysis. The analysis in this study was not an organizational analysis, but a similar study might, by analyzing the role performance and role conception of organization members, investigate the norms of an organization and the behavior demands that the organization places on its members. Such analysis carried out in several organizations could lead to comparative studies.

The analysis in this study also suggests work that might be carried on in the analysis of political systems. It may be stretching conventional usage to think of organizations as political systems, but they can be so conceived and to do so may bear interesting fruit. Robert Dahl has written, "Perhaps the most obvious political roles are played by persons who create, interpret, and enforce rules that are

binding on members of the political system."[6] Surely if we use this definition of political role then executives play political roles in their organizations and organizations can be viewed as political systems.[7] Conversely political systems may be viewed as organizations. These observations suggest a new meaning for the commonplace statement that the politics-administration dichotomy is a false one. Moreover, they suggest that there is point in wondering if analysis of executive roles could be used as a guide to study analogous roles in other political systems. One can ask questions also about the political behavior of executives. Viewing executives as political actors might result in the investigation of quite interesting and novel aspects of the executive role. It might also help us learn more about the operation of political systems.

Conclusion

This study has reported and attempted to interpret data gathered from senior executives in five scientific and technical bureaus of the federal government. It has been concerned with their career identification patterns and with their work involvement, with their rule following behavior and with the reasons that they obey their superiors.

Analysis of data on the career identification of the executives showed that about half of the executives identify as neither institutionalists nor professionals. These executives were termed hybrids. Both hybrids and the professionally identified tended to have more education than the institutionalists. Administrative executives, who

---

[6]Robert A. Dahl, Modern Political Analysis (Englewood Cliffs, 1963), p. 11.

[7]Norton E. Long, "The Administrative Organization as a Political System," in Sidney Mailick and Edward H. Van Ness, Concepts and Issues in Administrative Behavior (Englewood Cliffs, 1962), pp. 110-121.

tended to have less education than other executives, identified as institutionalists.

The executives in these five organizations tend to be highly involved in their work, although higher ranking executives tend to be more involved than lower ranking executives and higher ranking executives with shorter service tend to be more involved than higher ranking executives with longer service.

The executives varied considerably in their rule following behavior, but no executive said that he frequently deviated from the rules. The executives in almost equal numbers said either that the most important reason for obeying their immediate superior was his position or that the most important reason was his competence. They agreed that both his coercive power and his promotive power were less important reasons for obeying him.

It would be improper to generalize from the executives in this study to all federal executives. But it can be pointed out again that demographic data collected from the executives in this study indicated that in many respects they resemble the high level civil servants described in The American Federal Executive. Perhaps what this means is that it would be most fruitful to continue study in the civil service of relationships that proved significant in this study, for example, the relationships between rank and involvement and length of service and involvement. This is not to say, of course, that relationships not significant in this study are worth no more attention.

The analysis of the data reported in this study was guided by hypotheses drawn from relevant literature, but this study was not limited to testing hypotheses. Effort also was made to suggest new

hypotheses and to point out questions that the data raised. The study may indeed raise more questions than it answers, but questions must be asked before they will be answered. Not to raise questions because they cannot be answered is no way to advance knowledge.

APPENDIX A

Notes on Statistics

1. Throughout the study if chi square was not significant at at least .2 level of confidence it was judged not significant.

2. Blalock notes, "We can take advantage of predictions as to direction simply by halving the significance level obtained. If chi square is large enough to yield significance at the .10 level without predicting direction, the result will be significant at the .05 level provided, of course, that the direction of the relationship was predicted beforehand."[1] The significance levels of the table in this study are those obtained simply from calculating chi square and have in no case been halved. In considering the findings in this study, however, Blalock's statement may be kept in mind.

3. Several tables in this study were not tested for one of two reasons. In some cases the lack of relationship between variables was so clear as to obviate a test. More importantly, other tables--notably the ones showing career identification pattern and behavior pattern by organization--were not tested even though a relationship was suggested. In these cases the cells contained such small numbers that any significant relationship found might have been misleading. On the other hand, the lack of a statistically significant relationship might also have been misleading. Even a strong relationship may not be significantly different from chance if the numbers involved are small.

4. Most of the tables indicating relationships between variables do indicate a significance level. A sentence from Lipset's Union Democracy, therefore, seems appropriate. "Further studies upon different organizations will constitute more reliable confirmation, for they test the hypotheses in a different population, which a chi square test on this data could never do. It is probably better to place one's faith in further studies to confirm hypothesized relationships than to place it in chi square tests."[2]

---

[1]Hubert M. Blalock, Social Statistics (New York, 1960), p. 218.

[2]Seymour Martin Lipset, Martin Trow, and James Coleman, Union Democracy (Garden City, 1962), p. 483.

APPENDIX B

Questions From the Questionnaire

This appendix contains questions from a questionnaire contructed at the Survey Research Center, University of Michigan, and distributed to respondents in five government agencies. The appendix contains only those questions which collected data about executives and which were analyzed in the present study. The complete questionnaire is not included for two reasons. It contained numerous questions that were not used in this study and, secondly, it included several questions that mentioned the department which the agencies are in by name.

The questions are reproduced with their original numbers and in the order in which they appeared in the questionnaire.

1. What is the grade level of your present position? (If you do not have a GS grade, please check the grade that most nearly equals your rating.) CHECK ONE:

   _____(1) GS 16 and above
   _____(2) GS 15
   _____(3) GS 14
   _____(4) GS 13
   _____(5) GS 12
   _____(6) GS 10 or 11
   _____(7) GS 8 or 9
   _____(8) GS 7 or below

2. How long have you worked for the agency you are working for now? WRITE IN:

   _____ years and _____ months

3. How long have you been in your present job? WRITE IN:

   _____ years and _____ months

4. How long have your worked for the federal government? (Consider only the jobs you have held full time since you became self-supporting. This should be the total number of years, whether continuous or not.) WRITE IN:

_____ years and _____ months

7. By how many different organizations have you been employed full time, including your present position and service in the armed forces? WRITE IN: _____

How many of these were Federal? WRITE IN: _____

How many of these were governmental but nonfederal? WRITE IN: _____

How many were private? WRITE IN: _____

8. How challenging do you find your present work--in the sense of demanding concentration, intelligence, or energy? CHECK ONE:

_____(1) My present work is hardly challenging at all
_____(2) Somewhat challenging
_____(3) Moderately challenging
_____(4) Strongly challenging
_____(5) My present work is extremely challenging

14. In carrying out the functions and responsibilities of your job (or in doing your work), about how often do you personally find it reasonable and practical to deviate from some policy or procedure in order to do a more effective job? CHECK ONE:

_____(1) I frequently deviate from some policy or procedure
_____(2) Fairly often
_____(3) Occasionally
_____(4) Hardly ever
_____(5) I never deviate from a policy or procedure

15. Some individuals are completely involved in their work--absorbed by it night and day. For others, their work is simply one of several interests. How involved do you feel in your work? CHECK ONE:

_____(1) I am not much involved in my work
_____(2) Moderately involved
_____(3) Considerably involved
_____(4) Greatly involved
_____(5) I am completely involved in my work

16. In a typical month (of 22 weekdays and 8 weekend days), how many days of differing duration do you usually spend on all matters related to your work in the agency? Include all technical and related work, whether paid for it or not, including work which you do at home; exclude intervals for meals and recreation.
FILL IN SPACES BELOW TOTALLING 30 DAYS. (For example, if you work a regular 5-day, 40-hour week, you would indicate 8 days of no work-related time, and 22 days of 5-8 hours each.)

_____ days when I put in no work-related time
_____ days when I put in from 1 to 4 hours
_____ days when I put in from 5 to 8 hours
_____ days when I put in from 9 to 10 hours
_____ days when I put in from 11 to 12 hours
_____ days when I put in from 13 to 14 hours
_____ days when I put in from 15 hours or more

_____ Total days per month; should equal 30

29. Considering your job as a whole, how well do you like it?
CHECK ONE:

_____(1) I don't like my job at all
_____(2) Don't like it too well
_____(3) Like some things about it, dislike others
_____(4) Like it fairly well
_____(5) I like my job very much

38. Looking ahead for the next five years or so, do you think that you will be working for: CHECK ONE:

_____(1) The same unit of the agency I am now in
_____(2) The same agency, but a different unit
_____(3) The federal government, but a different agency
_____(4) Private industry
_____(5) University or other non-profit institution
_____(6) Myself (i.e. self-employed)
_____(7) Other (please specify) _____

40. Imagine that you are about to be introduced to a group of people with mixed backgrounds and jobs and that, for good reasons, it is important to impress them about yourself as much as possible. The person introducing you asks, "What is your occupation?"
WRITE IN YOUR ANSWER:

_____

_____

43. People view their careers in different ways. Some think of their careers in terms of working in the federal government or in a particular department, bureau, or agency of the federal government or in a particular function found mainly in the federal government such as the foreign service, defense, intelligence, and so on; these are people building their careers in the framework of the public service. Others think of their careers in terms of some professional or occupational speciality such as lawyer, psychologist, doctor, physicist, administrator (executive manager), engineer, and the like; these people are building their careers in the framework of their particular profession or speciality irrespective of any organizational or institutional setting.

How do you see the conscious development of your career? CHECK ONE:

_____(1) Primarily in the framework of the public service
_____(2) Primarily in the framework of a profession or speciality
_____(3) Other (please specify):

The responses to question 44 were not used in this study, but it is included in the appendix because 44, 45 and 46 formed a series.

44. Different things are of central importance in the lives of different people. Which of the following would you say are the most important to most people?

Put a number 1 next to the item you think most people would consider the most important. Put the number 2 next to the item you think most people would consider the second most important--and so on until you have ranked all five.

_____ Their work or occupation
_____ Their family
_____ Their friends
_____ Their own individually pursued leisure time activities
_____ Their organizational activities, for example, service clubs, church, etc.

45. Now, being as objective as you can, indicate how you feel your own behavior would look to others who really know you--if they were to rank these five items concerning you.

Put a number 1 next to the item you think others who really know you would say is the most important in your life. Put a number 2 next to the second most important--and so on.

_____ Your work or occupation
_____ Your family
_____ Your friends
_____ Your own individually pursued leisure time activities
_____ Your organizational activities, for example, service clubs, church, etc.

46. Finally, indicate which of the following <u>are of the most importance to you</u>. Be as honest with yourself as you can; do not indicate what you think is the socially accepted sequence of answers.

Again, use the numbers 1 through 5 to indicate the most to the least important parts of your life.

_____ Your work or occupation
_____ Your family
_____ Your friends
_____ Your own individually pursued leisure time activities
_____ Your organizational activities, for example, service clubs, church, etc.

86. Listed below are five reasons generally given by people when they are asked why they do the things their superiors suggest or want them to do. Please read all five carefully. Then number them according to their importance to you as reasons for doing the things your immediate superior suggests or wants you to do.

GIVE RANK 1 TO THE MOST IMPORTANT FACTOR, 2 TO THE NEXT MOST IMPORTANT AND SO ON...GIVING A RANK OF 5 TO THE LEAST IMPORTANT

I do the things my superior suggests or wants me to do because:

_____(a) I respect his competence and good judgment, particularly about things with which he is more experienced than I
_____(b) I admire him for his personal qualities and want to act in a way that merits his respect and admiration
_____(c) He is in a good position to recommend promotions and/or step increases
_____(d) He can apply pressure and penalize those who do not cooperate
_____(e) I respect his authority, which gives him the right to expect that his suggestions will be carried out

127. Taking things as a whole, how satisfied are you with the agency and your job? CHECK ONE:

_____(1) I'm not satisfied and there are a great many things that could be changed
_____(2) I'm not very satisfied but I can see no way things could be changed
_____(3) I'm quite satisfied with the agency but there are certainly many things that could be changed
_____(4) I'm very satisfied but I know of some things that could be changed
_____(5) I'm very satisfied with the agency and my job and would not want to see them make any changes

155. What is your present age? WRITE IN: _____

156. What is your sex?
_____(1) Male
_____(2) Female

157. Check the highest level of education you have completed:
CHECK ONE:

_____(1) Some high school or less
_____(2) Completed high school
_____(3) Some college, less than 2 years
_____(4) Two to four years of college but not degree
_____(5) Completed college
_____(6) One or more years of graduate or law study without advanced degree
_____(7) Master's Degree
_____(8) Law Degree
_____(9) Doctor's Degree

160. If you attended college list your college degree(s) and field(s) of specialization (list field even if no degree received).
WRITE IN:

Degree (or last level attended)	Specialization fields

162. How many professional societies and organizations (other than purely honorary) do you belong to? (For example, American Chemical Society, American Library Association...) If none, please indicate.
WRITE NUMBER.

_____

In how many of these are you an active member, e.g., officer, committee member, etc? WRITE IN NUMBER:

_____

APPENDIX C

Questions From the Interview

This appendix contains questions from an interview schedule developed as part of a project of the Survey Research Center, University of Michigan. The schedule was followed in interviews with 55 executives in five government agencies.

The appendix contains only those questions that provided data relevant to this study. The questions are reproduced with their original numbers and in the order in which they appeared in the interview.

1. First, let's be sure I understand your position and responsibilities in this agency. Can you tell me a little about the scope of your job and what you consider to be your main responsibilities? (PROBE FOR DESCRIPTION AS R SEES IT, NOT SIMPLY A PARROTING OF THE OFFICIAL JOB DESCRIPTION.)

   (a) Are there any others that you consider important? (IF YES, ASK) What would they be?

   (b) What are the principle duties and activities that occupy you in carrying out your responsibilities?

      (i) Which of these seems to take the most time?

      (ii) Which ones do you consider most critical on the performance of your job? Why?

      (iii) Which are you best at doing? Why?

      (iv) Which of these things do you do least well? Why?

   (c) How would you describe the way your job contributes, directly or indirectly, to the achievement of your agency's mission and programs?

2. In carrying out your responsibilities, what matters are you likely to attend to personally, or at least follow closely, and which ones are you likely to delegate to a subordinate to handle?

   (a) Considering first what you attend to personally, why do you handle these matters this way? Are there any other reasons?

   (b) Now, what about the things you are likely to delegate, why do you delegate these matters? Are there any other reasons?

   (c) Are there some things you wish you could delegate more than you do now?

   (IF YES, ASK)

   (i) What would they be?

   (ii) Why do you wish you could delegate them more?

   (iii) What has prevented you from delegating them?

   (d) Are there some things you'd like to attend to personally more than you do now?

   (IF YES, ASK)

   (i) What would they be?

   (ii) Why would you like to attend to these things personally?

   (iii) What has prevented you from doing these things more yourself?

12. I'd like to turn now to some questions about the personal contacts that you have with your immediate subordinates. First, do you ever hold any formal meetings with your subordinates (whether or not they are regularly scheduled)?

   (IF YES, ASK)

   (a) What kinds of matters and problems are generally discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS)

   (b) How would you describe the main purpose of these meetings, that is, are they held mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

   (IF ANSWERS IT DEPENDS, ASK) Please explain what you mean? Can you give me some examples?
   (IF ANSWERS ALL THREE, ASK) Which do you consider the most important purpose? Can you give me some examples of how this works?

   (c) How would you describe your role in these meetings? (PROBE FOR AMOUNT CONTROL AND INFLUENCE EXERCISED BY R)

   (d) How satisfied are you with these meetings? How could they be improved?

13. What about formal or ad hoc meetings, are these ever held with your immediate subordinates?

(IF YES, ASK)

(a) Who most often initiates these meetings, you or your subordinates?

(b) What kinds of matters and problems are generally discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS)

(c) How would you describe the main purpose of these meetings, that is, are they held mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

(IF ANSWERS DEPENDS, ASK)	Please explain what you mean? Can you give me some examples?
(IF ANSWERS ALL THREE, ASK)	Which do you consider the most important purpose? Can you give me some examples?

(d) How would you describe your role in these meetings? (PROBE FOR AMOUNT OF CONTROL AND INFLUENCE EXERCISED BY R)

(e) How satisfied are you with these meetings? How could they be improved?

14. How about meeting with individual subordinates, including face-to-face contacts and telephone conversations, how often does this happen?

(IF EVER HAPPENS, ASK)

(a) Who most often initiates these individual contacts, you or your subordinates?

(b) What kinds of matters and problems are generally discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS AND PERSONAL vs ORGANIZATIONAL MATTERS)

(c) How would you describe the main purpose of these contacts, that is, are they mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

(IF ANSWERS IT DEPENDS, ASK)	Please explain what you mean? Can you give me some examples?
(IF ANSWERS ALL THREE, ASK)	Which is most frequently the main purpose? Can you give me some examples?

(d) How would you describe your role in these individual contacts? (PROBE FOR AMOUNT OF CONTROL AND INFLUENCE EXERCISED BY R)

(e) How satisfied are you with these individual contacts? How could they be improved?

15. We have been talking about the personal contacts that you have with your immediate subordinates. Now I'd like to turn to some questions about the personal contacts that you have with _____ (name of bureau chief). First, do you ever attend any formal meetings held by _____ (name of bureau chief) (whether or not regularly scheduled)?

(IF ATTENDS ANY, ASK)

(a) What kinds of matters and problems are generally discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS)

(b) How would you describe the main purpose of these meetings, that is, are they held mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

(IF ANSWERS IT DEPENDS, ASK) Please explain what you mean? Can you give me some examples?

(IF ANSWERS ALL THREE, ASK) Which do you consider the most important purpose? Can you give me some examples?

(c) How would you describe the role of _____ (name of bureau chief) in these meetings? (PROBE FOR AMOUNT OF CONTROL AND INFLUENCE EXERCISED BY BUREAU CHIEF)

(d) How satisfied are you with these meetings? How could they be improved?

16. What about informal or ad hoc meetings, do you ever attend any of these held by _____ (name of bureau chief)?

(IF ATTENDS ANY, ASK)

(a) Who most often initiates these meetings, _____ (name of bureau chief), you or others at your level, or who?

(b) What kinds of matters and problems are generally discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS)

(c) How would you describe the main purpose of these meetings, that is, are they held mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

(IF ANSWERS IT DEPENDS, ASK) Please explain what you mean? Can you give me some examples?

(IF ANSWERS ALL THREE, ASK) Which do you consider the most important purpose? Can you give me some examples?

(d) How would you describe the role of _____ (name of bureau chief) in these meetings? (PROBE FOR AMOUNT OF CONTROL AND INFLUENCE EXERCISED BY BUREAU CHIEF)

(e) How satisfied are you with these meetings? How could they be improved?

17. How about meeting individually with _____ (name of bureau chief), including both face-to-face contacts and telephone conversations, how often does this happen?

(IF EVER HAPPENS, ASK)

(a) Who most often initiates these individual contacts, you or _____ (name of bureau chief)?

(b) What kinds of matters and problems are generall discussed? (PROBE FOR CRITICAL vs ROUTINE MATTERS AND PERSONAL vs ORGANIZATIONAL MATTERS)

(c) How would you describe the main purpose of these individual contacts, that is, are they mostly for information passing and communication, or for problem solving, or for decision making? Can you give me some examples of how this works?

(IF ANSWERS IT DEPENDS, ASK) Please explain what you mean? Can you give me some examples?

(IF ANSWERS ALL THREE, ASK) Which is most frequently the main purpose? Can you give some examples?

(d) How would you describe the role of _____ (name of bureau chief) in these individual contacts? (PROBE FOR CONTROL AND INFLUENCE EXERCISED BY BUREAU CHIEF)

(e) How satisfied are you with these individual contacts? How could they be improved?

19. I'd like to return for a moment to a topic we (may have) touched upon earlier. It has been our observation that all organizations containing sizeable numbers of professionals have some problems in providing the best possible work environment for these professionals. Can you tell me what, as you see it, are some of the special problems faced by this agency in providing the ideal environment for its professionals?

(a) Now can you tell me about some of the things that are being done by this agency to provide the best possible environment for its professionals? I am particularly interested in those things that are special for this agency or that you think your agency is a leader in promoting?

We are almost through with the interview now, but before we stop I'd like to get some information of a more personal kind about your background. The kind of information we are asking for here will help us to learn a little more about the kinds of people who became successful public executives.

20. First, can you tell me what job you held when you first entered the federal government? When was that?

(a) What were the major jobs that you held before that?

(b) How about since you entered the federal government, what were the principal jobs you held up to the present?

21. Could you tell me the names of the various clubs, organizations, and associations to which you belong?

    (a) For example, what social or recreational organizations do you belong to?

    (b) How about business associations?

    (c) Any professional associations?

    (d) How about civic, political, and religious organizations?

    (IF NO RELIGIOUS CLUBS, ORGANIZATIONS, OR ASSOCIATIONS ARE MENTIONED, ASK)

    I notice that you didn't mention any religious groups. Do you happen to have any religious preference? (IF YES, ASK) Which would that be?

BIBLIOGRAPHY

Books

Argyris, Chris. Executive Leadership. New York: Harper & Bros., 1952.

_____. Personality and Organization. New York: Harper & Bros., 1957.

_____. Interpersonal Competence and Organizational Effectiveness. Homewood, Ill.: Dorsey Press, 1962.

Barber, Bernard. Science and the Social Order. Glencoe: The Free Press, 1952.

Barnard, Chester. The Functions of the Executive. Cambridge: Harvard University Press, 1938.

Bendix, Reinhard. Higher Civil Servants in America. Boulder: University of Colorado Press, 1949.

Bernstein, Marver. The Job of the Federal Executive. Washington: The Brookings Institution, 1958.

Blau, Peter M. and Scott, W. Richard. Formal Organizations. San Francisco: Chandler Publishing Co., 1962.

Caplow, Theodore. The Sociology of Work. Minneapolis: University of Minnesota Press, 1954.

Carlson, Sune. Executive Behavior. Stockholm: Stromberg Aktienolag, 1951.

Copeland, Melvin T. The Executive at Work. Cambridge: Harvard University Press, 1951.

Dahl, Robert A. Modern Political Analysis. Englewood Cliffs: Prentice-Hall, 1963.

Dalton, Melville. Men Who Manage. New York: John Wiley & Sons, 1959.

Dimock, Marshall. The Executive in Action. New York: Harper & Bros., 1945.

Drucker, Peter. The Practice of Management. New York: Harper & Bros., 1954.

Etzioni, Amitai. A Comparative Analysis of Complex Organizations. New York: Free Press of Glencoe, 1961.

Fortune, Editors of. The Executive Life. New York: Doubleday, 1956.

Francis, Roy G. and Stone, Robert C. Service and Procedure in Bureaucracy. Minneapolis: University of Minnesota Press, 1956.

Gross, Neal, Mason, Ward S., and McEachern, Alexander W. Explorations in Role Analysis. New York: John Wiley & Sons, 1958.

Hower, Ralph M. and Orth, Charles D. Managers and Scientists: Some Human Problems in Industrial Research Organizations. Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1963.

Jennings, Eugene. The Executive: Autocrat, Bureaucrat, Democrat. New York: Harper & Row, 1962.

Katz, Daniel, Maccoby, Nathan, and Morse, Nancy. Productivity, Supervision, and Morale in an Office Situation. Ann Arbor: Institute for Social Research, 1950.

Kilpatrick, Franklin P., Cummings, Milton C., Jr., and Jennings, M. Kent. The Image of the Federal Service. Washington: The Brookings Institution, 1964.

Kornhauser, William. Scientists in Industry. Berkeley and Los Angeles: University of California Press, 1962.

Learned, Edmund P., Ulrich, David H., and Booz, Donald R. Executive Action. Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1950.

Likert, Rensis. New Patterns of Management. New York: McGraw-Hill Book Co., 1961.

Lipset, Seymour Martin, Trow, Martin, and Coleman, James. Union Democracy. Garden City: Doubleday Anchor Books, 1962.

Lipset, Seymour Martin. Political Man. Garden City: Doubleday Anchor Books, 1963.

March, James G. and Simon, Herbert A. Organizations. New York: John Wiley & Sons, 1958.

Marcson, Simon. The Scientist in American Industry. Princeton: Industrial Relations Section, Princeton University, 1960.

Marvick, Dwaine. Career Perspectives in a Bureaucratic Setting. Ann Arbor: University of Michigan Press, 1954.

Merton, Robert K. Social Theory and Social Structure. Glencoe: The Free Press, 1957.

Nadel, S. F. The Theory of Social Structure. Glencoe: The Free Press, 1957.

Parsons, Talcott and Shils, Edward A. (eds.) Toward a General Theory of Action. Cambridge: Harvard University Press, 1954.

Presthus, Robert. The Organizational Society. New York: Alfred A. Knopf, 1962.

Selznik, Philip. Leadership in Administration: A Sociological Interpretation. Evanston: Row, Peterson & Co., 1957.

Shartle, Carroll L. Executive Performance and Leadership. Englewood Cliffs: Prentice-Hall, 1956.

Slesinger, Jonathan A. Personnel Adaptations in the Federal Junior Management Assistant Program. Ann Arbor: Institute of Public Administration, University of Michigan, 1961.

Stogdill, Ralph M., Scott, Ellis L., and Jaynes, William E. Leadership and Role Expectations. Columbus: Bureau of Business Research, College of Commerce and Administration, Ohio State University, 1956.

_____. and Shartle, Carroll L. Patterns of Administrative Performance. Columbus: Bureau of Business Research, College of Commerce and Administration, Ohio State University, 1956.

_____. and Coons, A. E. Leader Behavior: Its Description and Measurement. Columbus: Bureau of Business Research, College of Commerce and Administration, Ohio State University, 1957.

Thompson, Victor A. Modern Organization. New York: Alfred A. Knopf, 1961.

Wahlke, John C., et al. The Legislative System: Explorations in Legislative Behavior. New York: John Wiley & Sons, 1962.

Warner, W. Lloyd, et al. The American Federal Executive. New Haven: Yale University Press, 1963.

Whyte, William H., Jr. The Organization Man. Garden City: Doubleday Anchor Books, 1957.

Articles

Argyris, Chris. "The Individual and the Organization: Some Problems of Mutual Adjustment," Administrative Science Quarterly, 2 (1957), 1-24.

Baumgartel, Howard. "Leadership Style as a Variable in Research Administration," Administrative Science Quarterly, 2 (1957), 344-360.

_____. "The Concept of Role," in Warren G. Bennis, Kenneth B. Benne, and Robert Chin (eds.), The Planning of Change. New York: Holt, Rinehart and Winston, 1961. pp. 373-375.

Bavelas, Alex. "Leadership: Man and Function," Administrative Science Quarterly, 4 (1960), 491-498.

Bendix, Reinhard. "Bureaucracy and the Problem of Power," Public Administration Review, 5 (1945), 194-209.

_____. "Bureaucracy: The Problem and Its Setting," American Sociological Review, 12 (1947), 498-502.

Bennis, Warren G. "Leadership Theory and Administrative Behavior: The Problem of Authority," Administrative Science Quarterly, 4 (1959), 260-301.

Bidwell, Charles E. "Some Effects of Administrative Behavior: A Study in Role Theory," Administrative Science Quarterly, 2 (1957), 163-181.

Brown, Paula. "Bureaucracy in a Government Laboratory," Social Forces, 32 (1954), 259-268.

Coates, Charles and Pellegrin, Roland J. "Executives and Supervisors: Contrasting Self-Conceptions and Conceptions of Each Other," American Sociological Review, 22 (1957), 217-220.

_____. "Executives and Supervisors: Informal Factors in Differential Bureaucratic Promotion," Administrative Science Quarterly, 2 (1957), 200-215.

Cochran, Thomas C. "The Historian's Use of Social Role," in Louis Gottschalk (ed.), Generalization in the Writing of History. Chicago: University of Chicago Press, 1963. pp. 103-110.

Dalton, Melville. "Informal Factors in Career Achievement," American Journal of Sociology, 56 (1951), 407-415.

_____. "Conflicts Between Staff and Line Managerial Officers," American Sociological Review, 15 (1950), 342-351.

Etzioni, Amitai. "Authority Structure and Organizational Effectiveness," Administrative Science Quarterly, 4 (1959), 43-67.

_____. "Two Approaches to Organizational Analysis: A Critique and a Suggestion," Administrative Science Quarterly, 5 (1960), 257-278.

Evan, William M. "Role Strain and the Norm of Reciprocity in Research Organizations," American Journal of Sociology, 68 (1962), 346-354.

Fortune, "1700 Top Executives," 60 (November 1959), 138.

Gibb, Cecil A. "Leadership," in Gardner Lindzey (ed.), Handbook of Social Psychology. Cambridge: Addison Wesley Publishing Co., 1954. pp. 877-920.

Glazer, Barney G. "The Local-Cosmopolitan Scientist," American Journal of Sociology, 69 (1963), 249-259.

Golembiewski, Robert T. "Three Styles of Leadership and Their Uses," Personnel, 38 (July-August 1961), 34-43.

Gouldner, Alvin W. "Cosmopolitans and Locals: Toward an Analysis of Latent Social Roles," Administrative Science Quarterly, 2 (1957-58), 281-306, 440-480.

Gulick, Luther. "Notes on the Theory of Organization," in Gulick and L. Urwick (eds.), Papers on the Science of Administration. New York: Institute of Public Administration, Columbia University, 1937. pp. 3-45

Hall, Richard H. "Intraorganizational Structural Variation: Applications of the Bureaucratic Model," Administrative Science Quarterly, 7 (1962), 295-308.

_____. "The Concept of Bureaucracy: An Empirical Assessment," American Journal of Sociology, 69 (1963), 32-40.

Henry, William E. "The Business Executive: The Psychodynamics of a Social Role," American Journal of Sociology, 54 (1949), 286-291.

Hopkins, Terrence. "Bureaucratic Authority," in Amitai Etzioni (ed.), Complex Organizations: A Sociological Reader. New York: Holt, Rinehart & Winston, 1961. pp. 82-98.

Inkeles, Alex. "Personality and Social Structure," in Robert K. Merton, Leonard Broom, and Leonard S. Cattrell, Jr. (eds.), Sociology Today. New York: Basic Books, 1959. pp. 249-276.

Janowitz, Morris. "Changing Patterns of Organizational Authority: The Military Establishment," Administrative Science Quarterly, 3 (1958), 473-493

Kaplan, Norman. "The Role of the Research Administrator," Administrative Science Quarterly, 4 (1959), 20-42.

Leavitt, Harold J. "Unhuman Organization," Harvard Business Review, 40 (July-August 1962), 90-98.

Levinson, Daniel J. "Role, Personality and Social Structure in the Organizational Setting," Journal of Abnormal and Social Psychology, 58 (1959), 170-180.

Lieberman, Seymour. "The Effects of Changes in Roles on the Attitudes of Role Occupants," Human Relations, 9 (1950), 385-403.

Litwak, Eugene. "Models of Bureaucracy Which Permit Conflict," American Journal of Sociology, 67 (1961), 177-184.

Long, Norton E. "The Administrative Organization as a Political System," in Sidney Mailick and Edward H. Van Ness, Concepts and Issues in Administrative Behavior. Englewood Cliffs: Prentice-Hall, 1963. pp. 110-121.

Neiman, L. J. and Hughes, J. W. "The Problem of the Concept of the Role: A Resurvey of the Literature," Social Forces, 30 (1951), 141-149.

Parsons, Talcott. "Suggestions for a Sociological Approach to the Theory of Organizations," Administrative Science Quarterly, 1 (1956), 63-85, 225-239.

Presthus, Robert V. "Toward a Theory of Organizational Behavior," Administrative Science Quarterly, 3 (1958), 48-72.

_____. "Authority in Organizations," Public Administration Review, 20 (1960), 85-91.

Reissman, Leonard. "A Study of Role Conceptions in Bureaucracy," Social Forces, 27 (1949), 305-310.

Sarbin, Theodore. "Role Theory," in Gardner Lindzey (ed.), Handbook of Social Psychology. Cambridge: Addison Wesley Publishing Co., 1954. pp. 223-258.

Seashore, Stanley E. "Administrative Leadership and Organizational Effectiveness," in Rensis Likert and Samuel P. Hayes, Jr. (eds.), Some Applications of Behavioral Research. Paris: UNESCO, 1957. pp. 44-80.

Shartle, Carroll L. "Leadership and Executive Performance," Personnel, 25 (1959), 375-376.

Shephard, Herbert A. "Nine Dilemmas in Industrial Research," Administrative Science Quarterly, 1 (1956), 295-309.

Stinchcombe, Arthur L. "Bureaucratic and Craft Administration of Production: A Comparative Study," Administrative Science Quarterly, 4 (1959), 168-187.

Stogdill, Ralph M. "Personal Factors Associated with Leadership--A Survey of the Literature," Journal of Psychology, 25 (1948), 35-71.

_____. and Shartle, Carroll L. "Methods for Determing Patterns of Leadership Behavior in Relation to Organization Structure and Objectives," Journal of Applied Psychology, 32 (1948), 286-291.

Stone, Donald C. "Notes on the Governmental Executive: His Role and His Methods," in Dwight Waldo (ed.), Ideas and Issues in Public Administration. New York: McGraw-Hill Book Co., 1953. pp. 39-53.

Tannenbaum, Robert and Schmidt, W. H. "How to Choose a Leadership Pattern," Harvard Business Review, 36 (March-April 1958), 95-101.

Thomas, Edwin J. "Role Conceptions and Organizational Size," American Sociological Review, 24 (1959), 30-37.

Thompson, Victor A. "Hierarchy, Specialization and Organizational Conflict," Administrative Science Quarterly, 5 (1961), 485-521.

Turner, Ralph H. "The Navy Disbursing Officer as a Bureaucrat," American Sociological Review, 12 (1947), 342-348.

Udy, Stanley H., Jr. "Bureaucracy and Rationality in Weber's Organization Theory: An Empirical Study," American Sociological Review, 24 (1959), 791-795.

Wald, Robert M. and Doty, Roy A. "The Top Executive--A First Hand Profile," Harvard Business Review, 32 (July-August 1954), 45-54.

Wilensky, Harold L. "Work, Careers and Social Intergration," International Social Science Journal, 12 (1960), 543-560.

Unpublished Material

Janda, Kenneth F. "Democratic Theory and Legislative Behavior: A Study of Legislator-Constituency Relationships." Unpublished Ph.D. dissertation, Indiana University, 1961.

Stanley, David T. "The Higher Federal Civil Service." Washington: The Brookings Institution, 1964, pre-publication draft.