

AN EXAMINATION OF THE RELATIONSHIP OF
STRUCTURAL AND ATTITUDINAL VARIABLES TO
OCCUPATIONAL AND ORGANIZATIONAL COMMITMENT

by

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TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS	ii
LIST OF TABLES	vi
CHAPTER	
I. Introduction	1
Statement of the Problem	3
Origin of the Problem	4
Relevance of the Problem	7
II. Introduction	10
Definitions of Organizational and Occupational Commitment: An Overview	10
Typologies of Commitment	15
Factors Related to Commitment	19
The Two Categories of Test Variables	44
The Research Questions	49
III. Introduction	50
The Sample	50
Analysis of Possible Return Bias	51
Operationalization	53
Assessment of Measurement Error	58
Discussion of the Statistical Techniques Utilized	60
IV. Introduction	64
Question One: Changes in Occupational Commitment	65
Question One: Changes in Organizational Commitment	67
Question Two: Occupational Commitment	67
Question Three: Organizational Commitment	75
Question Four: Occupational Commitment	81
Question Five: Organizational Commitment	85
Question Six: Change in Occupational Commitment.	88
Question Six: Change in Organizational Commitment.	90
V. Introduction	94
Overview of the Findings	94
Implications	100
Suggestions for Future Research	104

TABLE OF CONTENTS
(Continued)

	<u>Page</u>
REFERENCES	109
APPENDIX A	114
APPENDIX B	122
VITA	124

LIST OF TABLES

<u>Table</u>	<u>Page</u>
1.	Typologies of Commitment 20
2.	Characterizations of British and American Workers' Attachment to Work 41
3.	Summary of Variables Suggested to Influence Commitment 45
4.	Results of an Analysis of Variance Between Return of Questionnaire Date and Both Occupational and Organizational Commitment: As a Test for Return Bias 52
5.	Alpha Reliability Coefficients for the Scales Measuring Organizational and Occupational Commitment, Job Satisfaction, and Role Conflict 59
6.	Results of Difference of means Tests Between Time 1 (1975) and Time 2 (1980) Occupational and Organizational Commitment 66
7.	Pearson Zero-Order Product Moment Correlations Between the Structural and Attitudinal Variables and Occupational Commitment: 1975-1980 69
8.	Results of the Test for Significance of Difference Between Correlation Coefficients, 1975-1980, for the Structural and Attitudinal Variables with Occupational Commitment 73
9.	Pearson Zero-Order Product Moment Correlations Between Structural and Attitudinal Variables and Organizational Commitment 77
10.	Results of the Test for Significance of Difference Between Correlation Coefficients, 1975-1980, for the Structural and Attitudinal Variables with Organizational Commitment 79
11.	Percentage of the Variance Explained in Both Types of Commitment by the Structural and Attitudinal Groups of Variables, 1975-1980 82

LIST OF TABLES
(Continued)

<u>Table</u>		<u>Page</u>
12.	Regression Coefficients of the Structural and Attitudinal Variables as they Relate to Occupational Commitment, 1975-1980	84
13.	Regression Coefficients of the Structural and Attitudinal Variables as they Relate to Organizational Commitment, 1975-1980	87
14.	Percentage of Explained Variance in Change of Occupational and Organizational Commitment by Changes in Structural and Attitudinal Variables: Controlling for Occupational and Organizational Commitment at Time 1 (1975)	89
15.	Regression Coefficients of Changes in Each of the Structural and Attitudinal Variables as they Relate to Changes in Occupational Commitment	91
16.	Regression Coefficients of Changes in each of the Structural and Attitudinal Variables as they Relate to Changes in Organizational Commitment	93

CHAPTER I

AN INTRODUCTION AND ORIENTATION TO THE PROBLEM

Introduction

This study examines factors which relate to organizational and occupational commitment. Organizational commitment refers to an individual's degree of willingness to maintain a relationship with his or her local employing organization. Occupational commitment refers to an individual's degree of willingness to maintain a relationship with his or her larger occupation or profession.

Two general theoretical frameworks have been suggested by previous researchers for studying employee outcomes, such as employee commitment (Cf. Miller and Form, 1969:16-21). The first of these two frameworks is the "structural" approach. This approach argues that various factors operate within the structural composition of social organizations which influence various employee outcomes, such as commitment. Such factors include, for example, the type of production technology utilized by an organization and the material rewards offered to employees in exchange for their expenditure of effort.

In addition to the macro-level structural variables, this study proposes that micro-level structural variables exist which constitute individual employees' structural composition, and which influence employee outcomes, such as commitment. Examples of these variables include employees' age, sex, and education. This research will test the

relationship of certain micro-level "structural" characteristics of employees to their occupational and organizational commitment.

A second general theoretical approach argues that various attitudinal traits of employees influence theory work-related outcomes, such as that of commitment (Cf. Miller and Form, 1980:19-21). Furthermore, some scholars who operate from "attitudinal" theoretical framework argue the primacy of the attitudinal variables over structural variables in accounting for commitment (Cf. Ritzer and Trice, 1969:478). Therefore, a controversy exists concerning which of the two explanations of commitment discussed above (the structural or attitudinal) best account for occupational and organizational commitment. This study will examine the currently unresolved controversy. In doing so, this study utilizes data collected from a sample of park and forest rangers working in state and federal organizations in Virginia, 1975 - 1980. Information concerning rangers' commitment, as well as measures of rangers' structural and attitudinal characteristics, was obtained in 1975 and 1980.

By using longitudinal data, the present study has the advantage of being able to specify changes that may have occurred in both types of commitment, as well as changes which may have occurred in respondents' structural and attitudinal traits. This allows the additional possibility of assessing the relationship between changes in both sets of independent variables to changes in the dependent variables of occupational and organizational commitment.

Statement of the Problem

The problem for this study is to examine the relationship of certain structural and attitudinal traits of the rangers to their occupational and organizational commitment. In addition, this study assesses the relationship of changes in the structural and attitudinal variances to changes in occupational and organizational commitment from 1975 to 1980. In short, the following research questions are posed:

1. Have significant changes occurred in occupational and organizational commitment, from Time 1 (1975) to Time 2 (1980)?
2. Which, if any of the structural and attitudinal variables, appear to significantly increase or decrease their relation with occupational commitment, from 1975 to 1980?
3. Which, if any, of the structural and attitudinal variables appear to significantly increase or decrease their relation with organizational commitment, from 1975 to 1980?
4. Which group of variables (structural or attitudinal) explains more of the variation in occupational commitment, from 1975 to 1980?
5. Which group of variables (structural or attitudinal) explains more of the variation in organizational commitment, from 1975 to 1980?
6. How much of the variation in occupational and organizational commitment change is explained by changes in the group of

structural variables versus changes in the group of attitudinal variables?

The operationalization and measurement of the variables and scales employed to answer the above questions are presented in the "Methodology" chapter. The reader's attention is now turned to a brief discussion of the history of the commitment concept.

Origin of the Problem

The concept of commitment can perhaps best be understood with reference to the writings of several classical scholars of social thought. A number of classical social theorists have argued that commitment to certain values or ideologies influence the nature and form of social organizations within a society; societal members then differentially commit themselves to various organizational forms. Karl Marx, for example, argued that a society's form of economic organization affects its members' commitment to certain values. Hence, a capitalistic system stresses commitment to the bourgeois values of labor exploitation, quantity of factory-type production, and production for the primary goal of profit. By contrast, a craft system emphasizes commitment to the values of product quality, and production for the primary goal of product utility.

Marx was, of course, concerned with what he felt to be the negative side-effects of commitment to capitalistic values. Commitment to such values creates the seeds of capitalism's own destruction through exploitation and alienation of the masses. Marx called for massive

social reform involving commitment to socialistic values. Thus, commitment to particular forms of relations to production is an important concept in the historical writings of Marx.

Emile Durkheim incorporated the concept of commitment in his writings on the division of labor within societies. Commitment when defined as loyalty and attachment to a form of social organizations, appears very similar to Durkheim's conceptual definition of social solidarity, of which he suggested there to be two types, mechanical and organic. Thus, the notion of commitment among the members of a society may be viewed as synonymous with Durkheim's concept of social solidarity. And while Durkheim never argued that, as a group, members of one of these two types of societies were more committed to their organizational mode than the members of the other group, he does imply that member commitment (within and to each organizational form) is achieved and maintained through different means by each group.

Durkheim implied, for example, that member commitment to the mechanical form of social organization is insured through a structural emphasis upon intimacy and conformity among societal members. This is maintained by adherence to and enforcement of custom, tradition, and social heritage. Organic organization, on the other hand, is characterized by population heterogeneity and superficial social relationships. This is maintained by commitment to instrumental values, such as those of power, prestige, status, and financial enumeration for effort. In short, Durkheim argues that cohesion within each type of society is maintained by commitment to different values. The mechanical

society stresses commitment to the values of custom and tradition, while the organic society emphasizes commitment to instrumental and contractual relations.

Turning to still another scholar's writings on commitment, Max Weber suggested that commitment to certain religious values were an important influence upon the development of capitalism, as a form of economic organization. More specifically, Weber argued that commitment to values of the "Protestant Ethic", (e.g., Calvinistic concept of predestination, the notion of each individual having a "calling", and belief in hard work, individual success and personal achievement), stimulated the rise of capitalistic economic organization.

Weber argued that the "bureaucratic" form of organization reflects capitalistic societies' intense emphasis upon efficient goal realization. Weber believed that commitment to such bureaucratic goals is achieved and maintained through financial remuneration, career progress and promotions, and the promise of tenure and job security for employees.

In short, Weber suggested that commitment to the values of the Protestant Ethic promoted the rise of capitalism. In turn, capitalism generated the development of bureaucracies. Commitment within these bureaucracies was then maintained by various economic and social incentives.

To briefly summarize, the concept of commitment has figured prominently in the writings of such classical sociological theorists as Marx, Durkheim, and Weber. Each has indicated that commitment to certain

values affects the form of social organization in which men choose to work and live. Marx argued that commitment to the values of production for the sake of profits, and labor exploitation, was associated with mechanical forms of social organization in which the clan or multiple-clan structure is the organizational foundations. Commitment to the values of specialization and instrumental relations was linked to organic social organization in which occupational specialty supplies an organizational base. Weber argued that commitment to certain religious values of the Protestant Ethic fueled capitalistic organization.

Having discussed the importance of the concept of commitment in a socio-historical context, let us turn to the relevance of the problem in a more contemporary context.

Relevance of the Problem

A number of sociologists have indicated the importance of employee commitment within contemporary work settings. Richard Holton (1960) suggests that the concept of employee commitment has long been recognized by employers as a crucial factor affecting the survival of organizations. According to Wilbert Moore (1965), the survival of work organizations can be threatened when multitudes of non-committed, dissatisfied workers leave their jobs to pursue more satisfying employment elsewhere. Massive employment turnover can escalate recruitment, training, and general labor costs. Delays of production, distribution, and marketing of the organizational product or service can also result from massive employee turnover. The economic problems

associated with employee turnover, such as general cost escalation and profit loss, could force an organization to raise the price of its product or service in order to regain lost profits, or to merely "break-even".

One implication from Richard Holton's (1960) research, is that a drastic price increase initiated by an organization, in a highly competitive market, could lead to the organization's demise if consumers were to react by purchasing the same organizational product or service at the less expensive outlets of competitors. Theoretically then, the above chain of negative events could result from low levels of employee commitment.

Organizations could, therefore, benefit from an analysis of the factors which influence employee commitment. The resulting information could be used by organizations to structure environments which would boost employee commitment, thus lessen such organizational problems as absenteeism, low productivity, and turnover (Katz and Kahn, 1966).

Employees could also benefit from a commitment analysis, assuming that an organization would want to re-structure its work environment to boost commitment in an attempt to lessen the problems discussed above. Modifications in the work environment could make employee tasks more challenging, stimulating, and self-rewarding. In addition to boosting job commitment, such changes might enhance employees' sense of pride in craftsmanship and feelings of self-worth and esteem.

In summation, research concerning factors which influence commitment appears justified. Commitment is a variable related to a

variety of organizational problems. Knowing which variables to manipulate in order to boost commitment could benefit the organization and the individual employee. With this in mind, the reader's attention is now directed to a review of previous literature concerning commitment.

CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This chapter reviews the literature relevant to the concept of organizational and occupational commitment. The chapter presents various definitions of commitment, reviews studies which relate specific factors to commitment, and presents two major categories of commitment variables to be tested in this research.

Definitions of Organizational and Occupational Commitment: An Overview

The concept of commitment, in sociology, is marked by a varied history of definitional and typological constructions. In general, commitment implies the maintenance of a relationship between an individual and his or her work or employing organization. One of the first sociologists to write about commitment to one's occupation or vocation was Max Weber.

Weber's classic article, "Science as a Vocation" (1919) is a discussion of occupational commitment. In this article Weber discusses a number of variables which he believes are crucial to the development and maintenance of a scientific career. Many of these variables are synonyms for the term "commitment".

For example, Weber argues that "dedication" is an essential feature in the development of a scientific career. Dedication to the professional norms and ethics surrounding scientific conduct are paramount. As a demonstration of such dedication, Weber points out that aspirants to a scientific career must first submit themselves to the

life of a graduate student which, in Germany, involves the individual taking up residence at a university, being formally examined and trained by the faculty, and giving lectures without receiving any salary other than the fees of one's students. In reference to such dedication, Weber states that, "He must be able to endure this condition for at least a number of years without knowing if he will have the opportunity to move into a position which pays well enough for maintenance" (Weber, 1919:130). This condition is argued by Weber to be similar to the situation of American graduate students, with the exception that American students are usually paid by their institutions from the very start of their training. Weber points out, however, that the wages are very low and that the student is subject to dismissal should he or she fail to portray the dedicated image which is expected.

In the United States, where the bureaucratic system exists, the young academic man is paid from the very beginning. To be sure, his salary is modest; usually it is hardly as much as the wages of a semi-skilled laborerAs a rule, notice may be given to him, just as with German students, and frequently he definitely has to face this should he not come up to expectations (Weber, 1919:130).

Weber also notes that aspiring young scientists must have a tolerance for injustice in order to remain committed to their occupation. The reason for this, argues Weber, is because of the role "chance" plays in the career of the scientist. According to Weber,

I know of hardly any career on earth where chance plays such a role. I may say so all the more sincere since I personally owe it to some mere accidents that during my very early years I was appointed to a full professorship in a discipline in which men of my generation undoubtedly had achieved more than I hadon the

basis of this experience I have a sharp eye for the undeserved fate of the many whom accident has cast in the opposite direction . . .(Weber, 1919:132).

On the opposite side of the chance coin, Weber says that young aspirants must be able to answer "yes" to the following question in order to remain committed to the "calling" of science as a vocation: "Do you in all conscience believe that you can stand seeing mediocrity after mediocrity, year after year, climb beyond you, without becoming embittered and without coming to grief?" (Weber, 1919:134).

Thus, in making science one's "calling", Weber argues that one must possess tolerance and endurance. His notion of a "calling" implies the need for a passionate devotion to the values and goals of the occupation, combined with talent, enthusiasm and inspiration. The following short quotations illustrate this point:

For nothing is worthy of man as man unless he can pursue it with passionate devotion (Weber, 1919:135).

Certainly enthusiasm is a prerequisite of the 'inspiration' which is decisive . . .inspiration plays no less a role in science than it does in the realm of art (Weber, 1919:134-135).

Ladies and gentlemen. In the field of science only he who is devoted solely to the work at hand has 'personality'. And this holds not only for the field of science; . . .an inner devotion to the task, and that alone, should lift the scientist to the height and dignity of the subject he pretends to serve (Weber, 1919:137).

If Max Weber can be argued as having theoretically defined the components of occupational commitment, then Morse and Weiss (1955) can be argued as having empirically documented the existence of occupational commitment. These researchers asked a sample of employees if they would

continue to work even if they were given enough money to live as they wished for the rest of their lives. Eighty percent said they would continue to work. Thus, it appears that occupational commitment is a phenomena which does exist and which exerts considerable influence upon the behavior of employees. The reader's attention is turned toward a review of definitional literature concerning organizational commitment.

Chester Barnard (1938), one of the earliest "contemporary" occupational scholars, views organizational commitment as effort extended with the anticipation of reward for such effort (Barnard, 1938:23). Thus, in Barnard's opinion, organizational commitment can be viewed as hinging on the organization's distribution of rewards which, in turn, satisfy individual desires. Organizational survival is seen by Barnard as a function of employee commitment.

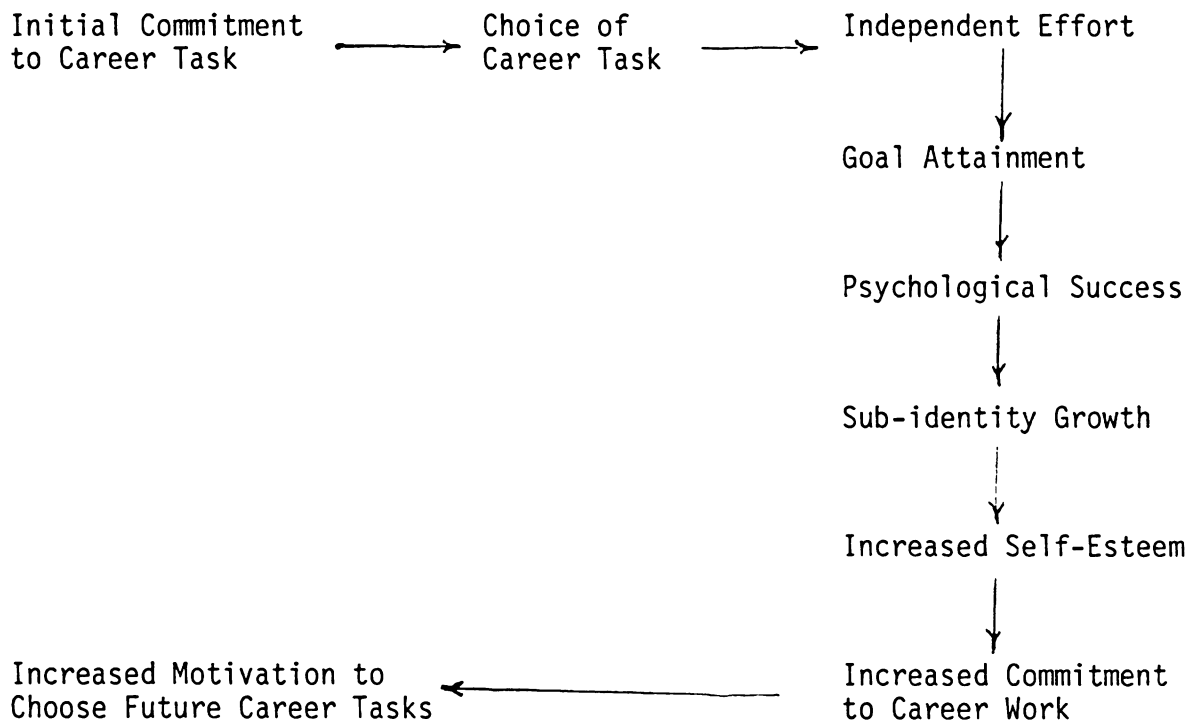
Over the last 10 to 15 years, a number of writers have conceptualized both occupational and organizational commitment in highly personal and emotional terms. These so-called human relations theorists define commitment in terms of attitudinal states held by employees. Such attitudinal states reflect the desire to fulfill higher-order needs such as intrinsic satisfaction, achievement and advancement within the workplace. Brown (1969:346), for example, states that organizational identification and commitment occur,

. . .when an individual accepts influence because he wants to maintain a satisfying self-defining relationship to another person or group.

Another human relations view of commitment is offered by Buchanan (1974):

Commitment is viewed as a partisan, affective attachment to the goals and values of an organization, to one's role in relation to goals and values, and to the organization for its own sake, apart from its purely instrumental worth (Buchanan, 1974:533).

In keeping with the tradition of human relations theorists, Douglas Hall (1971) offers a model of identity changes thought to influence one's commitment to career work. This model is suggested to be more appropriate to occupational commitment, although there is the possibility of relevance to organizational commitment as well. The following diagram illustrates Hall's model (Hall, 1971:50-76).



Finally, organizational commitment has been defined by Porter, Steers and Boulian (1973) as consisting of: 1) a strong belief and acceptance of organizational goals and values, 2) a willingness to exert

effort on behalf of the organization, and 3) a definite desire to maintain organizational membership. Thus, the authors argue organizational commitment to involve identification with organizational priorities, participation in the work role, and loyalty to the organization. Having discussed various definitions of occupational and organizational commitment, the reader's attention is directed toward a discussion of suggested typologies of commitment.

Typologies of Commitment

Elaborating on the earlier writings of Weber and Barnard, Gouldner (1958) suggests that employees may choose one of two latent social roles within organizations, the "cosmopolitan" or the "local" role. Each of these roles involves a specific type of identification. The "local" role involves a positive identification with, and commitment to, one's local employing organization. The "cosmopolitan" role involves positive identification and commitment to one's larger occupation or profession. Becker suggests that in many cases persons who are experts in their field are "cosmopolitans", such persons have less loyalty to their organization than to their occupation. By contrast, "locals" are individuals who have great loyalty to their organization and who express less identification with the larger occupation. Thus, implied with Gouldner's work, is the notion of two types of commitment, organizational, or local commitment, and occupational, or cosmopolitan commitment.

Types of commitment have also been discussed in relation to organizational goals. According to Katz and Kahn (1966), employees are not likely to completely internalize organizational goals. However,

committed employees are seen as having at least partially internalized organizational goals.

The first type of partial internalization suggested by Katz and Kahn (1966) occurs when an individual identifies with the values and goals of his or her occupation or profession, but not necessarily with those of the specific institution within which the individual is employed. The employee may find it equally desirable to work at a different institution for the goals he or she desires. Although Katz and Kahn (1966) do not discuss Gouldner's (1958) cosmopolitan-local paradigm, this type of partial internalization would certainly fall under the cosmopolitan or occupational commitment dimension.

The second type of partial internalization Katz and Kahn (1966) discuss concerns the values and goals of subsystems within organizations. They suggest it may be easier for an individual to internalize the values of his or her own unit within an organization, rather than the values of the larger organization. This type of partial internalization parallels the local or organizational dimension of Gouldner's (1958) cosmopolitan-local conceptualization of commitment.

Etzioni (1961) discusses commitment within a framework of organizational types: coercive, utilitarian, and normative. By so doing, he implies that commitment within each of these types is somewhat unique. In the "coercive" organization, for example, Etzioni argues that the primary organizational goal is order, achieved through the use of force by expressive leaders. This type of situation is thought to lead to alienated involvement among members. Such alienated involvement

produces low integration and commitment. The "utilitarian" organizational type achieves compliance to the primary goal of economic progress through the use of monetary remuneration for effort. Etzioni argues such a strategy produces an instrumental form of employee involvement which, in turn, is associated with moderate levels of employee integration and commitment. Finally, the "normative" type of organization achieves compliance to its primarily cultural goals through an appeal to specific values. According to Etzioni, this type of organization is associated with moral involvement and high integration and commitment among members.

In summary, implicit within Etzioni's typology are three types of commitment: forced, remunerative, and valuative. These types are associated with coercive, utilitarian, and normative organizations, respectively. Commitment within these organizations ranges from low to high, as organizations come closer to the achievement of a normative type of commitment.

Continuing with various typologies of commitment which have appeared in the literature, Helen Gouldner (1964) suggests a four-fold taxonomy of commitment based on her research of the Los Angeles League of Women Voters. "Cosmopolitan integration" or commitment refers to the degree to which a member is active in, and feels a part of the organization. "Organizational introjection", the second form of commitment, represents the extent to which a member's ideal self-image includes a variety of organizationally approved values and qualities. "Cross-sectional membership", focuses on member loyalty to a specific value at a certain

point in time. In this connection, Gouldner suggests that commitment to one organizational value may be independent of commitment to another. "Political party responsibility", the fourth type of commitment suggested by Gouldner, refers to a member's overall commitment to the greater organization in which his/her sub-unit belongs.

More recently, R. M. Kanter (1968) offers another definition and typological construction of commitment based on her research of utopian communities. Kanter states that commitment is:

. . .the process through which individual interest becomes attached to the carrying out of socially organized patterns of behavior which are seen as fulfilling those interests, as expressing the nature and need of the person (Kanter, 1968:500).

Elaborating on this definition, Kanter (1968) proposes the existence of three types of commitment:

1. continuance commitment -- this type refers to the maintenance of the employee's official bond to the organization.
2. cohesion commitment -- refers to the commitment of employees to a certain set of social relationships and group solidarity whose origins are on the job.
3. control commitment -- refers to the commitment of employees to the norms and values of the group, and to the acceptance of legitimate group authority.

Recently, Gould (1975), as a result of analyzing factors related to commitment among three occupational groups (manager, social workers, and clerks), suggests there may be two forms of commitment. The first form, "internal" commitment, has as its basis the satisfaction of higher-order needs (work and promotion opportunities) gained through participation in the organization. The second, "external" commitment, results from satisfying lower-order needs (salary needs, for example).

The final typological construction of commitment reviewed in this section comes from the work of Raymond Cole. Cole (1976) conceptualizes commitment as having three components. They are: a) identification, or adoption as one's own the goals and values of the organization, b) involvement, or absorption in the activities of one's work role, and c) loyalty, or a feeling of attachment to the organization (Cole, 1976:2). Cole's conceptualization of commitment is very similar to that of Etzioni's (1961).

Table 1 on the next page summarizes the various typological constructions presented. Having reviewed a variety of definitions and typologies of commitment, the reader's attention now turns to a discussion of various factors which have been suggested as determinants of commitment.

Factors Related to Commitment

Herbert Simon's (1957) work on "organizational equilibrium theory" suggests commitment to be a crucial factor affecting the equilibrium of organizations. To be successful, the organization must strive to maintain the continuous participation of employees. According to Simon,

Table 1. Typologies of Commitment.

<u>Author(s)</u>	<u>Types of Commitment</u>
A. Gouldner (1958)	1) Cosmopolitan 2) Local
Katz and Kahn (1966)	1) Cosmopolitan Internalization 2) Local Internalization
Etzioni (1961)	1) Forced 2) Utilitarian 3) Normative
H. Gouldner (1964)	1) Cosmopolitan Integration 2) Organizational Introjection 3) Cross-sectional Membership
R. Kanter (1968)	1) Continuance 2) Cohesion 3) Control
S. Gould (1975)	1) Internal 2) External
R. Cole (1976)	1) Identification 2) Involvement 3) Loyalty

this is achieved through incentive systems and environments structured to enhance employee identification with the work organization as a whole, specific tasks, and sub-groups within the organization which meet the emotional needs of employees. The material incentive systems and various forms of identification are viewed as inducement offered by the organization in exchange for committed labor (Simon, 1957:171):

We find, then, that those participants in organizations who are called its employees are offered a variety of material and non-material incentives, generally not directly related to the organization objective nor to the size and growth of the organization, in return for their willingness to accept organizational decisions.

The exchange model theorists, such as Simon (1957), as well as March and Simon (1958), assume the existence of a bargaining relationship between the individual and the organization. The organization is viewed as offering incentives to the individual in return for time and energy directed toward the realization of organizational goals. March and Simon (1958:84) discuss the nature of such exchange relations:

1. An organization is a system of interrelated social behaviors of a number of persons whom we shall call the participants in an organization.
2. Each participant and each group of participants receives from the organization inducements in return for which he makes contributions to the organization.
3. Each participant will continue his participation in an organization only as long as the inducements offered him are as great or greater (measured in terms of his values and in terms of the alternatives open to him) than the contributions he is asked to make.

March and Simon (1958) also suggest that an employee's perceptions of his or her marketability to other organizations affects his or her commitment to the organization. In short, March and Simon argue that the more job offers an individual believes he or she has, the greater is the perceived ease of movement from one organization to another. Variables such as age, social status, sex and length of service are proposed to influence these perceptions of mobility. For example, an older male, of relatively low social status, and with a great number of years of service to the organization, is predicted to have greater commitment than a young male with high social status and with only a few years invested in the organization.

Thibaut and Kelley (1959) are exchange theorists who argue that commitment within a relationship is determined by the nature of the rewards and costs within the relationship. Rewards are satisfactions and gratifications that a person receives as a result of interaction, while costs are those factors with interaction that serve to inhibit the performance of a given behavior sequence (Thibaut and Kelley, 1959:5-10). The implication of Thibaut and Kelley's (1959) argument is that employee commitment to an organization occurs because the organization controls the individual's access to particular rewards.

Homan's (1961) exchange theory of behavior also has implications for the commitment concept. The major implication is that individual commitment, as a behavior, will persist when there are proper rewards (money and esteem, for example) perceived to be associated with its display. On the other hand, commitment will be low if there are costs

identified with a particular mode of behavior which outweighs the rewards.

Becker (1960) in his notion of "side-bets", suggests how alternate sources for individual commitment can be cut off. Side-bets are viewed as investments which accrue to the relationship between individual and organization and include, for example, an individual's job training and/or education, seniority, and reputation. Thus, the more of these variables an individual invests with an organization, the more he or she stands to lose by leaving the organization, thus effectively cutting off attachments to other organizations and increasing one's commitment to the present or employing organization. The same reasoning can be applied to attachment to an occupation and workers' reluctance to change careers.

Hrebniak and Allutto (1972) combine an exchange perspective with a reliance upon Becker's (1960) side-bet conceptualization to account for employee commitment. They argue that, "The more favorable the exchange from the participant's viewpoint, the greater his commitment" (Hrebniak and Allutto, 1972:556). Empirically, they find employee perceptions of tension in the work setting to be negatively associated with commitment. This independent variable can be viewed as a "cost" within the exchange framework. They also find the variables of age and length of service to be positively associated with commitment. These findings support Becker's (1960) side-bet conceptualization of commitment.

Argyris (1964) maintains that in many organizations there is a conflict between the needs of the individual and those of the organization.

Such a conflict is believed to disrupt employee commitment. To achieve commitment, the organization must provide rewarding job experiences to employees which fulfill the esteem needs of employees, without threatening the organizational needs of stability and predictability. Thus, Argyris reasons that organizationally sanctioned increases in employee autonomy, challenge, participation and responsibility, strengthen commitment. Conversely, when individual need fulfillment is threatened by the organization's unjust use of power, penalties, or rewards, commitment among employees declines.

Other writers suggest that increasing employee participation affects certain psychological states, which in turn influence commitment. Hall and Schneider (1972), for example, maintain that when feelings of psychological success and self-esteem are enhanced in the task environment, employee commitment is improved. They argue that organizations can strengthen commitment by allowing employees more participation in the goal-setting aspect of production. Meeting personal goals, rather than organizational goals, is thought to be a means of increasing employee feelings of psychological success which, in turn, raises levels of commitment to the performance task of the organization. This is not to say, however, that Hall and Schneider advocate a bifurcation of goals between employee and organization. In an earlier work they point out that integration of employee and organization strengthens commitment:

An important way of seeing oneself as integrated into an organization is to incorporate the values and goals of his organization into one's identity. A positive relationship can be expected between organizational

identification and individual commitment to organizational goals (Hall, Schneider and Nygren, 1970:177).

Although many researchers argue for increases in various types of employee participation as a means of heightening commitment (cf. Argyris, 1964; Hall, Schneider and Nygren, 1970; Hall and Schneider, 1972), Moore (1965) warns that employees can be allowed too much participation. Moore notes that many industrial sociologists advocate increased participation without recognizing that after a certain point increasing employee participation can lessen levels of commitment.

Although participation in decisions seems to be a positive inducement to employee commitment and performance, it is not likely to be efficient or motivationally effective if the decisions (and concomitant responsibilities) are beyond the subordinates' capacities (Moore, 1965:60).

In short, continuously heaping responsibility upon the shoulders of employees can reach the point of overload, with commitment severely threatened as a result.

When commitment is threatened, employee turnover may result. Using turnover as a measure of commitment, Dansereau, Cashman and Graen (1974) found that employee perceptions of their ability to find a comparable job acted as a moderating variable between job attitudes and turnover. The higher the perceptions of job availability, the higher the probability of turnover. Such perceptions were not, however, the best predictors of commitment. Rather, the best predictors of commitment were the nature of the work itself (clerical versus management) and supervisory style of superiors.

Perceptual variables of the type just described have also been studied by Buchanan (1974). Buchanan, it should be remembered, was mentioned earlier as suggesting a human relations definition of commitment. His empirical research of 279 business and governmental managers revealed that individual attitudes fostered within work units and other organizational sub-groups functioned as a most influential variable in determining commitment. This finding supports the attitudinal component of commitment suggested by Porter et al. (1975).

Porter, et al. (1975) report that when people actually experience success in their jobs their commitment to the organization increases, as does their view of their own competence. Such success, or lack thereof, can lead individuals to reformulate their long-term career plans to conform to their ever-changing conceptions of their work ability. The authors note, however, that even in jobs designed so as to allow the incumbent to experience job success, there are no guarantees that the job holder will perceive the job as such. People who have jobs with high autonomy and challenge may still experience failure because in their own opinion their performance does not live up to the performance of others, or to the lofty and perhaps unrealistic goals these individuals may set for themselves. This may be especially true in situations where there are a number of people doing the same job and performance is only vaguely defined. Failure to achieve personal or objective performance goals can have a strong impact on individuals' perceptions of their ability. Negative perceptions of ability can lead individuals into rethinking their career path and options, thus lowering

their commitment. Low commitment can, in turn, lead to a high probability of the individual leaving the job.

On the other hand, Porter et al. (1975) report that the mere fact an individual continues to work for an organization cannot be taken as proof of high commitment. Tenure or length of service is no guarantee that a person identifies with, or is devoted to, an organization and its objectives. It may merely mean that an individual does not have available a more attractive job. Job availability is, of course, an environmental variable. Other researchers have written on the importance of job related environmental variables.

Gould (1975), for example, suggests that commitment varies with the nature of the work environment that employees must interact with on a day-to-day basis. Gould found commitment to be higher within work environments which allow for the satisfaction of growth needs (work and promotion opportunities). Conversely, lower levels of commitment were found within environments lacking such opportunities. Gould has also reviewed the research of other scholars who suggest a variety of commitment correlates.

In a review of studies which report correlates of commitment, Gould (1975) reports the variables of tenure, age, organizational level, and sex to be correlated with commitment.

Regarding tenure, Gould reviewed four studies which reported tenure to be associated with commitment (Grusky, 1966; Sheldon, 1971; Hrebiniak and Alutto, 1972; Buchanan, 1974). In each of these studies tenure was positively related to organizational commitment.

Concerning age, Gould reports on the research of Hrebiniak and Alutto (1972). Age was found to be positively related to commitment. Sheldon's work (1971) also included the variable of age in an analysis of commitment. Again, age was reported to be positively related to organizational commitment.

In terms of organizational level, Gould reviewed Sheldon's (1971) and Buchanan's (1974) research on commitment. Both reported positive relationships between level in the organization and organizational commitment.

Regarding sex of the employees, Gould reviewed two studies which tested this variable. The research of both Hrebiniak and Alutto (1972) and Grusky (1966) found females to be more organizationally committed than males. Females are suggested to be more committed because their alternative sources of employment are assumed to be less than those of males.

In summary, the review of research conducted by Gould (1975) indicates that tenure, age, and organizational level are positively associated with commitment. In addition, sex is reported to be significantly related to commitment, with females reporting higher levels of commitment than males. Other correlates and sources of commitment are presented by Dubin, Hedley and Taveggia (1976).

Dubin, Hedley and Taveggia (1976) discuss three major sources of attachment, or commitment, to work. These three sources are: 1) systems of the work environment, 2) workplace objects and human conditions,

and 3) payoffs. Within each major area there are variables which differentially relate to commitment.

The first variable discussed under the "system of the work environment" is employees' self-image. The authors review research which links self-concept to commitment. They present the argument that working is a critical part of the definition of the self. Work is argued to be a source of feedback concerning one's ability, competence, effectiveness, and personal attractiveness. The implication is that work settings which provide positive feedback concerning the above will be more likely to heighten commitment than work settings which provide negative feedback and threaten the self-image of employees.

The work group is a second variable under the category of work environment which is suggested, by the authors, to affect commitment. The authors find that when informal work groups promote a sense of job security by controlling the pace of work, commitment is heightened. They also report that when informal work groups display high cohesiveness and contribute to members' perceptions of power and self-esteem, commitment is enhanced.

The company one is employed by has often been discussed as a source of commitment. Dubin, Hedley and Taveggia (1976) review research which indicates that seldom is the employing organization, as a whole, the object of work attachment for the individual. For example, the authors mention the study by H. Gouldner (1960) which found that individual commitment to specific values of a voluntary organization was distinct from commitment to the whole organization. In short, the authors state:

The evidence seems very clear that the organization does provide a source of attachment to work. However, it is also clear that the organization as a whole is such a complex system that attachment to it for any individual will be made to only limited features of the system (Dubin, Hedley and Taveggia, 1976:294).

The "union" is suggested by Dubin, Hedley and Taveggia (1976) as another source of work attachment. Attachment is generated through the collective bargaining agreement which often concerns the incentives of pay, hours, and working conditions. A second way in which unions generate attachment is through participation of members in union and organizational activities. Here the authors review research which shows that during periods of low participation among union members, the workers express a dual linkage to both the company and the union. In addition, the authors review research which contends that the strongest attachment to work is through involvement as a union officer. Stewards, for example, are said to have reinforced their attachments to work by handling grievances. In addition, stewards are commonly chosen for promotion to supervisory positions, which also is thought to increase commitment.

Involvement in a craft or professional type of occupation also is believed by Dubin, Hedley and Taveggia (1976) to be a source of commitment. Their review of research demonstrates that the expertise a craftsman holds is likely to take precedence over attachment to a particular work organization. Dubin, Hedley and Taveggia (1976) are specific as to the source of attachment to an area of expertise: "The powerful hold that the craft profession may have upon the individual is

related to the extensive preparatory period of training and socialization that precedes assumption of the occupational role" (Dubin, Hedley and Taveggia, 1976:296). Conversely, the writers argue that when craftsmen fail to achieve professional career expectations within private organizations, they may become cynical and resort to insurgency against the organization.

"Industry" itself is reasoned by Dubin, Hedley and Taveggia to be a source of commitment. The authors present evidence to suggest that characteristics of a particular industry such as its strategic importance, universality, exclusiveness, inherent danger, novelty, profitability, degree of physical isolation, and the surrounding communities' identification with the industry are factors which affect employee commitment. In addition, the authors review research which demonstrates occupational inheritance to be influential in commitment. Such a variable refers to the degree that successive generations of workers know no other work than that engaged in by their fathers.

The second major category of sources of work attachments reviewed by Dubin, Hedley and Taveggia is labeled "workplace objects and human conditions." Under this category, the authors review literature which relates the variables of technology, product, routine, autonomy, and personal space/things, to the concept of commitment. Technology is the first variable discussed.

Technology is suggested by Dubin, Hedley and Taveggia (1976) to link individuals to their work.

The importance of technology as a source of work attachment is beyond question. The idea of technology as "the enemy", which has been a theme since the Luddite workers rose up and smashed the power looms at the beginning of the industrial revolution, is clearly a less useful way to evaluate technology than to see it as a source of linkage between persons and their work (Dubin, Hedley and Taveggia, 1976:299).

The attachment to work stemming from technological sources is likely to occur in work situations where the technology allows employees to control aspects of the production process and enhances employees' feelings of autonomy. The opposite situation, in which technology threatens worker autonomy and control, will be discussed later under Dubin, Hedley, and Taveggia's treatment of "autonomy" as a source of commitment.

The above-mentioned authors also note that an organization's product may serve as a source of worker commitment. Such attachment to a product is more likely to occur in organizations using a craft or unit type of production process, rather than in batch or mass production organizations.

Dubin, Hedley and Taveggia (1976) suggest "routine" to be a source of commitment to both organization and occupation. Routine is defined as ". . .the high probability that when an individual returns to a given environment, he will do just about what he did the last time he was in that environment" (Dubin, Hedley and Taveggia, 1976:300). Their literature review on this topic reveals that routine can be viewed as existing on a continuum with one end representing complete monotony and the other end representing dynamic or fluctuating routine. Individuals with a

capacity and need for novel stimulation will be less likely than individuals lacking such stimulation to become attached to routines which approach the monotony end of the continuum. Attachment to routine, or lack thereof, is suggested to affect commitment to the organization and occupation.

Autonomy is another variable suggested by Dubin, Hedley and Taveggia (1976) as influencing commitment. The traditional viewpoint held by many is that work environments which restrict the employees' opportunity to make decisions and use personal creativity and initiative stifle autonomy and lessen commitment. Scholars holding such a viewpoint often suggest job enlargement and enrichment programs which are designed to increase the employees' levels of responsibility and participation. Dubin, Hedley and Taveggia argue, however, that for many individuals and jobs, increasing responsibility can reach a point where it becomes detrimental to the employees' levels of satisfaction and commitment. In short, the continuous addition of responsibility can reach a point where it "overloads" the individual and becomes a source of stress rather than satisfaction.

Dubin, Hedley and Taveggia (1976) also suggest that "personal space and things" are sources of attachment to work. These writers could find no social science literature dealing with this topic, so they resort to their own personal observations. They argue that individuals have a sense of territoriality and possessiveness which does not cease to function when individuals enter their workplace. The writers note that people take possession of work space. They rearrange the decor and add

personal touches to "their" area. Nameplates, for example, signal possession of work areas. The authors note that:

One of the constant irritations in multiple shift operations is the bickering between shift occupants of the same work station who accuse each other of various failures to preserve the integrity of the space (Dubin, Hedley and Taveggia, 1976:303).

The authors go on to note that the sense of connection to "things" may be even stronger than the obsession with work space. As examples, a typist may have "her" typewriter which she is reluctant to share with others; cab drivers have "their own car" which they insist on continuous assignment to; laborers have "their own" tools which they forbid others to use--the list of examples is endless. In short, the authors suggest that attachments to space and objects associated with the workplace to be a source of commitment.

The third major category of sources of work attachments is labeled "payoffs for working," by Dubin, Hedley and Taveggia. Under this category, the authors discuss money, perquisites, power, authority, status, and the career as sources of commitment. Money is the first source discussed.

The authors argue it is self-evident that money attaches people to their work. They also point out that in moderately complex societies money is used ". . .as a means of valuing and rewarding the work and contributions of those who produce goods and services" (Dubin, Hedley and Taveggia, 1976:304). Generous amounts of money are often used to entice employees to perform unpleasant tasks, to encourage productivity, and to differentiate among classes of employees according to their

contributions to the organization. In addition, money earned at the organizational level links employees to the larger society by providing employees with a means of purchasing consumer goods from other organizations.

The second source of "payoffs for working" discussed by Dubin, Hedley and Taveggia is labeled "perquisites". Perquisites refer to payoffs provided for working which are almost entirely used in work-related activity. They may range, for example, from office furnishings to use of the company jet. According to the authors:

The primary function of perquisites is to provide forms of payoffs for working that could also be provided by each individual for himself. The perquisites are substitutes for what the individual could buy with his own money or provide for himself in some way (Dubin, Hedley and Taveggia, 1976:306).

In short, the authors suggest greater attachment may be generated within organizations which provide a higher quality and variety of fringe benefits or perquisites.

"Power" is the third source of commitment suggested by Dubin, Hedley and Taveggia, under the category of "payoffs for working".

We mean by power something very simple: the importance of the contribution that an individual makes to a system of division of labor. This view of power is coordinate with a widely held definition that power is the ability to carry out a course of action regardless of opposition to it (i.e., it is the power to do something [Weber, 1947] (Dubin, Hedley and Taveggia, 1976:306).

Power is suggested by the authors to be sought after since it places others in a situation of dependence upon its holder. Organizations

offer positions of power. The authors suggest that the greater the amount of power offered within an organizational position, the more attachment to the organization will be generated.

"Authority" is suggested as another source of commitment by Dubin, Hedley and Taveggia. "Authority may be defined as the legitimate right to make decisions determining the behavior of others" (Dubin, Hedley and Taveggia, 1976:307). Similar to their suggestion concerning power and commitment, the authors argue authority to be sought after as a payoff for organizational effort. They suggest greater levels of authority to be related to higher levels of commitment.

"Status" is also suggested by the same authors as a source of commitment. "Status is the comparative rank accorded to individuals according to some standard of measurement" (Dubin, Hedley and Taveggia, 1976:308). Status often confers material rewards for incumbents, such as desks, office location, and job titles. These material objects can become symbols of one's status in an organization. Status also produces relations of quality and relations of inequality among employees. In short, Dubin, Hedley and Taveggia suggest that status positions which offer highly valued status symbols and which offer the advantages of unequal relations (i.e., more authority and power) will produce higher levels of attachment to one's work.

Dubin, Hedley and Taveggia also note that a "career" can be a source of commitment to work. "A career is a series of connected stages of an occupation or profession through which he begins to work, until he retires (Dubin, Hedley and Taveggia, 1976:310). The authors review

research which shows that commitment to careers among individuals is strongest when the individuals occupy higher occupational levels. Higher occupational levels are believed to afford more control over the type and rate of career progression.

In summation, Dubin, Hedley and Taveggia (1976) suggest three broad sources of commitment to work. These categories include: 1) systems of the work environment, 2) workplace objects and human conditions, and 3) payoffs. Sub-categories under each of these classifications are then discussed. The authors argue that there are multiple attachments which may operate to bind an individual to his or her work, and there are seldom instances where only a single type of work attachment functions. The writers suggest that various combinations of the sources reviewed may be more likely to generate stronger commitment than other combinations; however, no speculation of an "ultimate" combination is offered. Having described the authors' review of the various sources of commitment, the reader's attention is now directed to a discussion of the same authors' own empirical research on commitment.

Dubin, Hedley and Taveggia (1976) conducted a study of commitment among more than 3,500 industrial and clerical workers from Great Britain and the United States. They measured the impact of age, sex, length of service, country, and "central life interests" upon work attachments. Respondents in the study were divided into three groups, based on how they answered questions concerning their central life interests (CLI): 1) CLI job, 2) CLI non-job, and 3) ambivalent. The "ambivalents" were excluded from analysis. According to researchers, "The picture that

emerges is that workers with a central life interest in work have eight major sources of attachment to work, each of which has positive significance, when contrasted with workers having a non-job orientation in CLI" (Dubin, Hedley and Taveggia, 1976:313). Such sources for CLI job-oriented individuals include the "self", "power", "company", "craft orientation", "autonomy", "career", and "technology".

By contrast, individuals with an ideal-type CLI non-job orientation report their sources of attachment to be "payoffs", "routine", "perquisites", and "personal space/things". According to the researchers, "The overall image of non-job oriented workers is that they are attached to their work by being concerned with limiting their self-investment and seeking routinized work operations with significant preferences for payoffs of several sorts" (Dubin, Hedley and Taveggia, 1976:313).

The researchers also report results concerning the variables of age and work attachments. Here differences between two groups of respondents were analyzed: "Young" workers (aged twenty to thirty), and "older" workers (aged fifty to sixty).

The older workers gave special interest to the "routine" and to the physical and attention demands of the "self". There seems to be some linkage to "career" as representing long service with the company as well as having a job as a way of life.

The younger workers have a sharply contrasting set of work attachment preferences. The "work group" is an important source of attachment to work as are the challenging and variety aspects of "autonomy". They are concerned with the quality of "technology" and see the chance for promotion as a "career" dimension. The creative aspect of "craft-profession"

is emphasized as is the contributory aspect of "power" in teaching others. It seems clear that the younger workers, in comparison with older workers, are optimistic and forthcoming in relation to their work environments (Dubin, Hedley and Taveggia, 1976:316).

Next, the effects of length of service upon work attachments was investigated. Two groups of workers were analyzed: short-service employees (less than one year of service); and long-service employees (more than ten years of service). The researchers state that the long-service workers gave higher ratings to the following items: "power", "perquisite", "company", "craft-profession", "routine", "personal space/things", "career". Such factors as "perquisites", "company", "routine", "personal space/things", and "career" items did not appear as sources of work attachment by short-service workers.

The short-term employees give higher rankings to "work group" items and "autonomy" items, neither of which is the preferred listing for long-service workers. . . It appears that as service with a work organization increases, the sources of work attachment shift from one set of categories to another. This shift may have important implications for the manner in which length of service is treated in company policies (Dubin, Hedley and Taveggia, 1976: 317-319).

The effects of sex upon work attachments were also studied. Males gave preference to the following sources of work attachment items: "craft-profession", "perquisites", "technology", and "career". By comparison,

Among the female workers the categories of "work group", "routine", "product", "personal space/things", and "company" are uniquely selected and do not show up among the males. The work group is a sociability dimension of work and clearly this work attachment category is a major one for

women workers, reflecting, perhaps, the social image of women as non-permanent members of the labor force (Dubin, Hedley and Taveggia, 1976: 319-320).

In conclusion, Dubin, Hedley and Taveggia (1976) note differences in work attachments of employees in Great Britain and the United States. Their findings provide evidence for the assertion that work attachments are distinctive in different cultures. Each group reported different categories of work attachment in their self descriptions. The British workers demonstrated a higher preference for "perquisites" and "routine" as sources of attachment. American workers chose "power", "technology", "career", and "status" as sources of attachment. The following chart on the next page outlines other differences between the two groups (Dubin, Hedley and Taveggia, 1976:321).

Continuing with a review of correlates of commitment, Steers (1977) tested the effects of three groups of antecedent variables upon the commitment of: 1) a sample of hospital employees, and 2) a sample of research scientists and engineers. The first set of independent variables was called "personal characteristics" of employees and included employee's age, education, tenure, and the psychological needs for achievement, affiliation and autonomy. In both samples, these variables were found to have significant positive relationships with commitment.

The second set of variables was labeled "job characteristics" and included aspects of the task environment such as the presence of job autonomy, variety, feedback, task identity, and interaction. Again, in

Table 2. Characterizations of British and American Worker's Attachment to Work

Characterizations of British Workers' Attachments to Work

SELF--"inner directed" orientation; preoccupied with physical effort and personal needs and conveniences.

WORK GROUP--solidarity with and emphasis on collective action.

CRAFT/PROFESSION--independence.

AUTONOMY--concern with excessive supervision.

COMPANY--its organizational characteristics.

PRODUCT--its social significance.

PERSONAL SPACE/THINGS--cleanliness.

Unique Features

PERQUISITES--company-related, off-job features.

ROUTINE--pre-knowledge of work and output expectations of company.

Characterizations of American Workers' Attachments to Work

SELF--"other directed" orientation.

WORK GROUP--like-mindedness.

CRAFT/PROFESSION--inventiveness and skill.

AUTONOMY--work-oriented uses of autonomy.

COMPANY--its social standing and internal operations.

PRODUCT--its utility.

PERSONAL SPACE/THINGS--convenience.

Unique Features

POWER--having responsibility for work, and influence on others.

TECHNOLOGY--quality of equipment.

CAREER--possibilities of advancement.

STATUS--public respect for own work.

Source: Dublin, Hedley and Taveggia (1976:321).

both samples, significant positive relations were found to exist with commitment.

The third set of independent variables was designated "work experience" variables. This category included employees' perceptions of their importance to the organization, and the extent to which employees perceived the organization to be dependable in carrying out its obligations to employees. Both of these variables were found to be positively related to commitment.

In short, Steers (1977) found all three sets of antecedent variables to be positively related to commitment among his samples of hospital employees and research scientists and engineers. For both samples, the "work experience" variables were more closely associated with commitment than were the other two sets of independent variables.

More recently, Brief and Aldag (1980) studied antecedents of organizational commitment among a sample of nurses. The first set of antecedent variables explored was labeled "nurses' affective reactions to job attributes". Reactive measures were taken for satisfaction with one's work, supervision, pay, promotion opportunities, and co-workers. It was predicted that each of the above aspects of satisfaction would be significantly and positively associated with commitment. The second set of variables consisted of "attributes of nurses themselves", and included age, tenure, level of education (an index of professionalism), adherence to the Protestant work ethic, and family responsibility.

The findings reported by Brief and Aldag (1980) show all of the satisfaction variables to be significantly and positively associated

with commitment. Satisfaction with the work itself had the strongest relationship to commitment. An exception to the findings concerning the satisfaction variables was the variable of pay. Satisfaction with pay was not significantly associated with commitment.

Concerning the attributes of the nurses themselves, age and identification with Protestant work ethic ideals were significantly and positively associated with commitment. Nurses' education and family responsibilities were significantly and negatively related to commitment, while tenure was not significantly related to commitment. Concerning the negative association of education and commitment, the authors suggest this finding to indicate a conflict extant among nurses between their professional identification and their organizational commitment. The implication is that nurses with higher levels of education are less committed to their local organization, but more committed to their profession, than nurses with lower educational levels. Thus, the authors predict that the future of nursing will see a decline in levels of organizational commitment as nurses become more professionalized.

"Family responsibilities" was operationalized as the number of children under six years currently residing in the nurse's household, and the expected increase in that number during the next twelve months. This variable was negatively associated with commitment. In other words, the greater the number of children, or expected children, the less was nurses' organizational commitment.

In summation, there have been numerous attempts to define and empirically relate the concept of commitment to other variables. The

studies reviewed have shown that when commitment is treated as a dependent variable there can be found a wide variety of factors which affect it.

Table 3 presents a summary of all such variables suggested within the review of previous research as being associated with commitment. It is obvious from the Table that many of these variables could be grouped under a few broad headings. As the reader will recall, two general headings, or groups of variables, are suggested by Miller and Form (1980) as affecting employee outcomes--structural and attitudinal variables. One can start at the top of the list of variables in Table 3 and categorize each variable as primarily structural or attitudinal. For example, the first two variables in the list are plainly attitudinal in nature, while the third variable is structural in nature, the fourth attitudinal, the fifth and sixth structural, the seventh attitudinal, and so on.

The Two Categories of Test Variables

The purpose of the present study is to use two groups of variables, which have been implied from a review of previous research as affecting employee commitment, in an examination of the relation of each group of variables to occupational and organizational commitment among a sample of park and forest rangers working in the State of Virginia, 1975-1980. The two major categories of variables to be analyzed are "structural" and "attitudinal" traits of employees. Structural variables refer to characteristics of employees which must be taken as given, as being somewhat beyond the immediate control of the individual. These

Table 3. Summary of Variables Suggested to Influence Commitment.

<u>Author(s)</u>	<u>Variables</u>
Simon (1957)	1) Organizational identification 2) Informal group identification 3) Material incentives
March and Simon (1958)	1) Perceptions of marketability
Thibaut and Kelley (1959), and Homans (1961)	1) Employee-organization relationship costs and rewards
Becker (1960)	1) Side-bets
Hrebniak and Allutto (1972)	1) Perceptions of tension in the work setting 2) Age 3) Length of service
Argyris (1962)	1) Employee-organizational conflict 2) Employee autonomy, challenge, participation, responsibility, power, rewards, penalties
Hall and Schneider (1973)	1) Success and self-esteem from the task 2) Participation in goal setting 3) Organizational value internalization
Moore (1965)	1) Excessive employee participation
Dansereau, Cashman and Graen (1974)	1) Job mobility 2) Nature of task
Buchanan (1974)	3) Organizational attitudes fostered within work units and informal work groups
Porter <u>et al.</u> (1975)	1) Job success 2) Perceptions of personal competence and work ability 3) Job availability
Gould (1975)	1) Organizational satisfaction of employee growth needs * 2) Tenure * 3) Age * 4) Organizational level * 5) Sex
Dubin, Hedley and Taveggia (1976)	* 1) Systems of the work environment a) Self b) Work group c) Company d) Union e) Craft-profession f) Industry

Table 3. Summary of Variables Suggested to Influence Commitment (Cont.)

<u>Author(s)</u>	<u>Variables</u>
Dubin, Hedley and Taveggia (1976) (Cont.)	<ul style="list-style-type: none"> * 2) Work-place objects and human conditions <ul style="list-style-type: none"> a) Technology b) Product c) Routine d) Autonomy e) Personal space/things * 3) Payoffs <ul style="list-style-type: none"> a) Money b) Perquisites c) Power d) Authority e) Status f) Career 4) Country 5) Central life interest <ul style="list-style-type: none"> a) Job-oriented b) Non-job-oriented 6) Age 7) Length of service 8) Sex
Steers (1977)	<ul style="list-style-type: none"> 1) Personal traits of employees <ul style="list-style-type: none"> a) Age b) Education c) Tenure d) Needs of achievement, affiliation, autonomy 2) Job characteristics <ul style="list-style-type: none"> a) Job autonomy b) Variety c) Feedback d) Task identity e) Interpersonal interaction 3) Work experience variables <ul style="list-style-type: none"> a) Employee perceptions of their organizational importance b) Organizational satisfaction of obligations to employees
Brief and Aldag (1980)	<ul style="list-style-type: none"> 1) Affective reactions to job <ul style="list-style-type: none"> a) Work task b) Pay c) Promotion opportunities d) Co-worker interaction

Table 3. Summary of Variables Suggested to Influence Commitment (Cont.)

<u>Author(s)</u>	<u>Variables</u>
Brief and Aldag (1980) (Cont.)	2) Employee attributes a) Age b) Tenure c) Education d) Work ethic e) Family responsibility

* These variables were not specifically tested by the author(s), but rather, were reviewed as used in other studies.

variables include employee's age, education, length of service, and percent of income derived from a second job. The attitudinal traits refer to employees' perceptions of their job. These variables include employees' general job satisfaction and perceptions of role conflict. Given the advantage of having data on rangers' structural and attitudinal traits, and their occupational and organizational commitment, from two different points in time, several possibilities concerning data analysis were made available. These possibilities are discussed in the next paragraph.

By virtue of having data on the study variables from two points in time, this research was able to determine if commitment among the sample of rangers changed significantly over time. Research question one, presented below, revolved around the latter issue. Secondly, having data from two points in time made it possible to compare the relationships of both groups of variables (structural versus attitudinal) to both types of commitment at each period in time (1975 and 1980). In addition, each of the structural and attitudinal variables could be observed independently, over time, to see if their zero-order relationship to both types of commitment changed significantly over time. Questions two through five concerned the above issues. Third, by having data from two points in time, relationships between changes in both groups of independent variables could be examined in terms of their relationships to changes in both occupational and organizational commitment. In short, the research questions of this study are presented below:

The Research Questions

1. Has a significant change occurred in occupational and organizational commitment among the sample of rangers from 1975 to 1980?
2. Which, if any, of the structural and attitudinal variables appear to significantly increase or decrease their influence upon both occupational and organizational commitment during the time period 1975 - 1980?
3. Which, if any, of the structural and attitudinal variables appear to significantly increase or decrease their relation with organizational commitment, from 1975 to 1980.
4. Which group of variables (structural or attitudinal) explains more of the variation in occupational commitment, from 1975 to 1980?
5. Which group of variables (structural or attitudinal) explains more of the variation in organizational commitment, from 1975 to 1980?
6. How much of the variation in occupational and organizational commitment change is explained by changes in the group of structural variables versus changes in the group of attitudinal variables?

CHAPTER III

METHODOLOGY

Introduction

The purpose of this chapter is to describe the methodological aspects of the study. The sample is described and the operationalization of the independent and dependent variables is presented. In addition, the assessment of measurement error is included, as well as a discussion of the statistical techniques that were used to answer the research questions.

The Sample

As previously noted, this study extends the initial research of Snizek, Shoemaker and Bryant conducted in 1975. These authors collected data on commitment from a sample of 120 park and forest rangers working in the state of Virginia. Follow-up data were collected from these same rangers, by this researcher, in 1980.

Rangers contacted in 1980 were sent a cover letter which explained the general purpose of the study and requested their participation. A questionnaire similar to that which they completed in 1975 was included, as well as a self-addressed stamped envelope in which the questionnaire could be returned. See Appendix A for a copy of the cover letter and questionnaire.

Both the 1975 and 1980 questionnaires contained identical measures of occupational and organizational commitment. The scales employed have been used frequently by numerous occupational sociologists working in the area of employee commitment (Cf. Ritzer and Trice, 1969; Alutto, et al., 1973). Similarly, both questionnaires contained the same measures of the various structural and attitudinal variables being analyzed. Ninety-six of out the 120 (80%) original respondents first surveyed in 1975 returned a questionnaire in 1980. Four of the 96 questionnaires returned in 1980 were judged to be non-usable, resulting in 92 cases (having both time 1 and time 2 measures) for analysis.

Analysis of Possible Return Bias

The 1980 follow-up questionnaires were mailed to the 120 respondents first surveyed in 1975 on May 1, 1980. Subsequent to this, questionnaires were returned over a six month period. As these returns arrived, the month of their receipt was recorded. In August, a follow-up letter and second questionnaire was mailed to respondents who had not yet returned their questionnaires. See Appendix B for a copy of the follow up cover letter.

Table 4 below reports the results of an analysis of variance run in order to assess the possible presence of a return bias. As can be observed from the Table no significant differences are shown to exist between categories of the "return variable" (month questionnaire returned) and either commitment variable. This finding can be interpreted as supporting the fact that neither the occupational nor the

Table 4. Results of an Analysis of Variance Between Return of Questionnaire Date and Both Occupational and Organizational Commitment: As a Test for Return Bias.

<u>Month of Return</u>	<u>Occupational Commitment x</u>	<u>S.D.</u>	<u>Organizational Commitment x</u>	<u>S.D.</u>
May	11.50	4.07	11.50	3.92
June	12.25	2.21	10.25	0.50
July	13.08	2.65	13.12	2.02
August	12.30	2.98	11.83	3.22
September	11.66	4.13	11.50	4.03
October	10.00	0.00	10.00	0.00
November	10.83	3.76	10.33	3.77

d.f. (6, 85) $F = 0.69$,
significance = 0.65 (n.s.)

d.f. (6, 85) $F = 1.20$,
significance = 0.31 (n.s.)

organizational commitment of subjects surveyed was affected by the time of the questionnaires' return. Thus, there is no reason to believe that the 24 rangers (20%) who did not return their questionnaires are significantly different from the 95 rangers (80%) that did return their questionnaire.

Operationalization

The dependent variables, organizational and occupational commitment, were measured by scales first introduced by Alutto, et al. (1973). More specifically, occupational commitment was measured by the following questions: "Assume you were offered a job in the field other than your occupation. Would you leave under any of the following conditions? With a slight increase in 1) pay, 2) job freedom, 3) status and responsibility, 4) friendliness of co-workers, or 5) opportunities to get ahead". Organizational commitment is measured by the following questions: "Assume that you were offered a job in a related field but in another agency. Would you leave under any of the following conditions? With a slight increase in 1) pay, 2) job freedom, 3) status and responsibility, 4) friendliness of co-workers, or 5) opportunity to get ahead."

The structural variables were measured by the following questions:

1. What is your age? _____
2. Education - highest grade completed (check one)
 - _____ a. Graduate or professional training
 - _____ b. Standard college or university graduate

- _____ c. Partial college training or technical school
 - _____ d. High school graduate
 - _____ e. Partial high school (10-11)
 - _____ f. Junior high school (7-9)
 - _____ g. Less than 7 years
3. How long (to the nearest year) have you been a ranger?
- _____
4. Quite often, persons hold part-time job in addition to their full-time employment. Do you receive any income from such a job? If yes, then approximately what percentage of your income comes from other sources?
- _____

The structural variables presented above (age, education, length of service, and percentage of income from other sources) are used in this study to represent the structural argument (cf. Becker, 1960) discussed earlier, which implies that the more an individual has "invested" in these variables, the more difficult it becomes to leave one's job, thus the higher is one's commitment to the organization, as well as to the occupation. The exception, of course, is with the last variable presented above, one's percent of income derived from other sources. It logically follows from Becker's argument that the more a person has invested in another job, the less his or her commitment should be. Therefore, we would expect a negative correlation between this variable and both types of commitment.

The attitudinal variables were measured by an index created by Brayfield and Rothe (1951) for measuring general job satisfaction, along with a scale developed by Miles (1974) to measure worker's perceptions of role conflict. Each of these scales are presented next.

The items to measure each dimension of role conflict were:

A. person-role conflict

1. I have to do things that have to be done differently.
2. I have to work on unnecessary things.
3. I have to do things that are against my personal principles.

B. intra-sender conflict

4. I receive assignments without proper help to complete them.
5. I receive assignments without adequate resources and material to execute them.

C. inter-sender conflict

6. I work with two or more groups who operate quite differently.
7. I have to buck a rule or policy in order to carry out an assignment.
8. I receive incompatible requests from two or more people.
9. I do things that are apt to be accepted by one person and not accepted by others.

D. role overload

10. I frequently have much more to do than I can handle during the available time at work.

The response categories for these items were Likert in nature, which allowed the respondent to strongly agree, agree, remain undecided, disagree, or strongly disagree with each statement. Respondent's general job satisfaction was measured as follows:

GENERAL JOB SATISFACTION

Some jobs are more interesting and satisfying than others. We want to know how you feel about your job. Please read the statements below and circle either "Strongly Agree", "Agree", "Undecided", "Disagree", etc., depending on how you feel about your present job. There are no right answers. We would simply like your honest opinions on each one of the statements.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
1. My job is like a hobby to me.	SA	A	U	D	SD
2. My job is usually interesting enough to keep me from getting bored.	SA	A	U	D	SD
3. It seems that my friends are more interested in their jobs.	SA	A	U	D	SD
4. I consider my job rather pleasant.	SA	A	U	D	SD
5. I enjoy my work more than my leisure time.	SA	A	U	D	SD
6. I am often bored with my job.	SA	A	U	D	SD
7. I feel fairly satisfied with my job.	SA	A	U	D	SD
8. Most of the time I force myself to go to work.	SA	A	U	D	SD
9. I am most satisfied with my job for the time being.	SA	A	U	D	SD

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
10. I feel that my job is no more interesting than others I could get.	SA	A	U	D	SD
11. I definitely dislike my work.	SA	A	U	D	SD
12. I feel that I am happier in my work than most other people.	SA	A	U	D	SD
13. Most days I am enthusiastic about my work.	SA	A	U	D	SD
14. Each day of work seems like it will never end.	SA	A	U	D	SD
15. I like my job better than the average worker does.	SA	A	U	D	SD
16. My job is pretty uninteresting.	SA	A	U	D	SD
17. I find enjoyment in my work.	SA	A	U	D	SD
18. I am disappointed that I ever took this job.	SA	A	U	D	SD

The two scales presented above (role conflict and job satisfaction) are used in this study are representing the attitudinal approach whose advocates maintain that commitment is more a function of employees' attitudes toward their work, versus the structural variables as argued by Becker (1960). The study will determine which group of variables (structural or attitudinal) explains more of the variance in

commitment (occupational and organizational) at each of the time periods the study sample was contacted (1975 and 1980). Thus, one will be able to tell, for example, if the structural variables explain more of the variance in occupational and organizational commitment for the 1975-1980 time period of the study. In addition, one will be able to tell if the amount of variation in commitment explained by the structural variables increases or decreases over time. The procedures for making such comparisons are discussed in the section titled, "Discussion of the Statistical Techniques Utilized".

Assessment of Measurement Error

This study assessed measurement error through the use of Cronbach's alpha reliability coefficient. Nunnally (1967:226) writes the following guidelines for acceptable reliability coefficients:

What a satisfactory level of reliability is depends on how a measure is being used. In early stages of research on predictor tests or hypothesized measures of a construct, one saves time and energy by working with instruments that have only modest reliability for which purpose reliabilities of .60 or .50 will suffice. . . For basic research, it can be argued that increasing reliabilities beyond .80 is wasteful. . . In contrast to standards for basic research, in many applied settings a reliability of .80 is not nearly high enough.

Table 5 presents the reliabilities of the scales used in this study, for both 1975 and 1980 samples.

Based on Nunally's guidelines for acceptable values of Alpha, when engaged in "Basic Research", the scale coefficients presented above are judged to be quite satisfactory.

Table 5. Alpha Reliability Coefficients for the Scales Measuring Organizational and Occupational Commitment, Job Satisfaction, and Role Conflict, 1975 and 1980.

<u>Scale</u>	Alpha Coefficient	
	<u>1975</u>	<u>1980</u>
Occupational Commitment	.81	.93
Organizational Commitment	.84	.91
Job Satisfaction	.86	.82
Role Conflict	.80	.81

Discussion of the Statistical Techniques Utilized

The purpose of this section is to very briefly summarize the statistical techniques employed in this study to test the two major research questions presented in the preceding Chapter. The techniques discussed will be elaborated upon in more detail in the next chapter (Analysis of the Data and Presentation of Results).

The first goal of analysis was to determine if commitment among the rangers significantly changed between 1975 and 1980. This question is posed in research question one. The answer to the question was approached by calculating difference of means tests for both occupational and organizational commitment between Time 1 (1975) and Time 2 (1980). The results are presented and discussed in the next chapter.

The second analytic goal of this study, represented in research questions two and three, was to assess any changes that may have taken place in the relation of both structural and attitudinal variables to organizational and occupational commitment from Time 1 (1975) to Time 2 (1980). This was examined through a comparison of the changes in correlation coefficients between each independent variable and both occupational and organizational commitment from Time 1 (1975) to Time 2 (1980). The statistical technique for comparing correlation coefficients is described by Blalock (1975: 405 - 407). According to Blalock:

. . .it is sometimes the case that one has obtained several correlations and wishes to establish that one is significantly higher

than another. As long as he is content to describe relationships within his particular sample, he may simply compare the relative sizes of the two r 's and note the magnitude of the difference. . .we can transform each of the r 's into z 's and then make use of a formula for the standard error of the difference between the two z 's, which is analogous to that for the standard error of a difference between means, and which is as follows:

$${}^0z_1 - z_2 = \sqrt{\frac{1}{N_1 - 3} + \frac{1}{N_2 - 3}}$$

We can then either put a confidence interval about $(z_1 - z_2)$ or look up the value of $z =$

$$\frac{(z_1 - z_2) - 0}{$$

${}^0z_1 - z_2$ in the normal table. Zero appears in the above formula because of the fact that our null hypothesis takes the form of $P_1 = P_2$ (Blalock, 1975: 405 - 406).

In short, Pearson correlation coefficients were calculated between each of the structural variables and each of the dependent variables for Time 1 (1975) and Time 2 (1980). For example, the Pearson correlation coefficient between age at Time 1 and occupational commitment at Time 1 was calculated. Then, the correlation between age at Time 2 and occupational commitment at Time 2 was calculated. The correlation coefficients were then transformed into z values and their differences computed through use of the formula suggested by Blalock. The direction (positive or negative) of the zero-order correlations and the significance of their difference was tabulated. The end result of this process allows one to compare the influence of each independent variable upon occupational commitment during the time period 1975 - 1980. One is then able to see if significant differences exist, for example, between

the relation of age to commitment at Time 1 (1975) and the relation of age to commitment at Time 2 (1980). Finding a correlation of 0.2 at Time 1, and a correlation of 0.6 at Time 2, for example, would suggest that age increases its influence upon commitment over time. Finding a statistically significant difference between the two correlations would add support to such an argument. In summary, correlations between all the independent variables (structural, attitudinal) and the dependent variables (occupational and organizational commitment) were calculated for Time 1 and Time 2. Their differences were computed and the significance of their differences noted. The results of this process are discussed in detail in the next chapter.

The third goal of this study, as presented in questions four and five, was to determine which group of variables (structural or attitudinal) explains more of the variation in occupational and organizational commitment, from 1975 to 1980. This was answered through regression analysis, which generated for each group of variables an R-square value. This allowed the comparison of R-square values for each group of variables. Thus, differences are highlighted between the percentage of variance explained in both types of commitment, by each group of variables.

The fourth goal of this study, presented in question number six, was to determine how much of the variation in occupational and organizational commitment change, is explained by changes in the structural and attitudinal variables. To answer this question, change scores in both the dependent and independent variables were calculated.

For example, job satisfaction at Time 1 (1975) was subtracted from job satisfaction at Time 2 (1980). The resulting change score was then regressed with the change in occupational commitment, which was computed by subtracting the occupational commitment score at Time 1 from the occupational commitment score at Time 2. Change scores for all of the independent variables were computed, then regressed with the change in occupational commitment. As suggested by Borhnstedt (1969) for change-score analysis, the Time 1 measure of the dependent variable was included in each regression calculation as a control variable. The regression computations then provided the percent of variance in occupational commitment change, explained by each group of independent variables. The same procedure was performed for organizational commitment. This allowed comparisons to be made between the amount of explained variance in both types of commitment change by structural versus attitudinal change. The results of these procedures are presented and discussed in the next chapter.

Having briefly discussed the statistics employed in this research, the reader's attention is directed to a presentation of the analysis results.

CHAPTER IV

ANALYSIS AND PRESENTATION OF RESULTS

Introduction

The purpose of this chapter is to present and discuss the statistical results which were derived from the application of specific statistical techniques to the following research questions: (1) Have significant changes occurred in occupational and organizational commitment, between 1975 and 1980, among the sample of rangers surveyed; (2) Which, if any, of the structural and attitudinal variables appear to have significantly increased or decreased their relationship to rangers' occupational commitment, from 1975 to 1980; (3) Which, if any, of the structural and attitudinal variables appear to have significantly increased or decreased their relationship to rangers' organizational commitment, from 1975 to 1980; (4) Which group of variables (structural or attitudinal) account for more of the variation in occupational and organizational commitment at Time 1 (1975); (5) Which group of variables (structural or attitudinal) account for more of the variation in occupational and organizational commitment at Time 2 (1980); and (6) How much of the variation in terms of the changes in both occupational and organizational commitment is explained by changes in structural versus attitudinal variables? The results of statistical analysis bearing on each of these questions are presented and discussed below.

Question One: Changes in Occupational Commitment

In order to assess whether or not significant changes had occurred from 1975 to 1980, in terms of both occupational and organizational commitment, difference of means tests were calculated. The results of such tests will first be discussed in relation to occupational commitment.

According to Blalock (1960), difference of means tests allow one to focus on comparisons between samples. In this study, the focus is on comparing the occupational commitment mean of the rangers surveyed in 1975, to the occupational commitment mean of the same rangers surveyed a second time, in 1980. In such a case, according to Blalock,

"...it becomes unnecessary to specify the absolute levels for either group. Instead, one can simply test the null hypothesis that there are no differences between them (means)" (Blalock, 1960:219).

Thus, the null hypothesis for this analysis is that the mean occupational commitment score for the rangers at Time 1 (1975) is equal to the mean occupational commitment score of rangers at Time 2 (1980). Table 6 on the following page presents the results of a t-test of means for occupational commitment at Time 1 and Time 2.

As Table 6 shows, the occupational commitment mean in 1975 was 13.30, compared to an occupational commitment mean of 12.25 in 1980. The difference between these two means is 1.05, which represents a statistically significant difference ($p = .01$). Therefore, the null hypothesis that the two means are equal is rejected. It appears then, that occupational commitment among the rangers was higher in 1975 than

Table 6. Results of Difference of Means Tests Between Time 1 (1975) and Time 2 (1980) Occupational and Organizational Commitment

Type of Commitment	Mean Commitment Scores (N=92)				df	t-value
	1975	S.D.	1980	S.D.		
Occupational	13.30	2.04	12.25	3.11	88	3.61**
Organizational	12.58	2.39	11.95	3.08	90	2.07*

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

in 1980, and that the decline experienced between these years is statistically significant.

Question One: Changes in Organizational Commitment

To determine whether or not a significant change had occurred from 1975 to 1980 in the mean level of organizational commitment among the rangers surveyed, a t-test was again calculated. As in the case of occupational commitment, Table 6 also presents the results of this analysis.

As indicated in Table 6, the mean organizational commitment of rangers in 1975 was 12.58 compared to 11.95 in 1980. The difference between these two means is 0.63 units, which is a statistically significant difference at the .05 level. With such a difference occurring by chance less than five times out of one hundred, the null hypothesis that the two means could have come from the same population is rejected. Hence, it appears, based on data presented in Table 6, that organizational commitment like occupational commitment, was significantly higher in 1975 than in 1980.

The reader's attention is now directed to question two, as it relates first to occupational commitment.

Question Two: Occupational Commitment

Research question two asks which, if any, of the structural and attitudinal variables appear to significantly increase or decrease their relation to occupational commitment from 1975 to 1980. This question

was addressed by first obtaining the zero-order correlations for all of the independent variables with occupational commitment at Times 1 (1975) and 2 (1980). According to Blalock,

"In words, the correlation coefficient is the ratio of the covariation to the square root of the product of the variation in x and the variation in y...we can see that r can also be defined as the ratio of the covariance to the product of the standard deviations of x and y. The covariance is a measure of the joint variation in x and y..." (Blalock, 1980: 318).

Therefore, Pearson Product Moment correlations were calculated first between the structural variables (age, education, length of service, percent income from other sources), and occupational commitment, and between each of the attitudinal variables and occupational commitment, at both times. These correlations and their significance levels are tabulated so as to allow a comparison of correlations over time. See Table 7 on the next page.

A discussion of the comparisons between these correlations must be prefaced by an important point concerning zero-order correlations. Zero-order correlations do not control for the influence of other variables, which if controlled for, may change the direction and significance of a zero-order correlation. Therefore, the comparisons offered below must be interpreted with this in mind. In another stage of this research, all of the independent variables are used in regression computations, which allow the simultaneous control of all other variables being analyzed. The procedure and its results will be discussed later in this chapter. The reader's attention is now

Table 7. Pearson Zero-Order Product Moment Correlations Between the Structural and Attitudinal Variables and Occupational Commitment: 1975-1980.

Structural Variables	Occupational Commitment (1975)	Occupational Commitment (1980)
Age	-0.0384	-0.0733
Education	0.1725*	0.2619**
Length of Service	0.1013	0.0688
% Other Income	-0.0687	-0.1476
<u>Attitudinal Variables</u>		
Job Satisfaction	0.3886**	0.1583
Role Conflict	0.0085	-0.1198

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

directed to a discussion of the zero-order correlations between the structural variables and occupational commitment, in terms of their comparative relationships between 1975 and 1980.

As Table 7 indicates, for occupational commitment in 1975, only one of the structural, as well as only one of the attitudinal variables have a statistically significant correlation. The structural variable of education and the attitudinal variable of job satisfaction are positively correlated with occupational commitment in 1975. Thus, in 1975, higher levels of education and job satisfaction are related to higher levels of occupational commitment. The situation changes somewhat as one looks at the right side of the Table and finds that the variable of education appears to have a stronger relationship to occupational commitment in 1980, while the relationship of job satisfaction appears to lessen, such that it is non-significant by 1980. Let us now examine these variables more closely.

Starting with the structural variable of age, the null hypothesis to be tested is that no significant difference exists between the correlation of age with occupational commitment at Time 1 and the same correlation at Time 2. First, however, one can see from Table 7 that age is negatively correlated with occupational commitment at Time 1, although at a nonsignificant level. Similarly, in 1980, however, age is negatively correlated with occupational commitment but at a somewhat higher level.

Perhaps the findings of this study may, in part, be due to an increased sense of professionalism among younger rangers. The younger

rangers are not long out of school, where they are taught a sense of occupational pride and professionalism. Perhaps this feeling of pride and professionalism becomes tempered over the years as rangers confront the problematic realities of their occupation. This may account for the negative correlation between age and occupational commitment at both time periods. As Table 8 points out, however, the difference between the correlations of age with commitment at the two time periods is not statistically significant. Hence, the null hypothesis stated previously cannot be rejected.

Concerning the structural variable of education, the null hypothesis to be tested is that no significant difference exists between the Time 1 and Time 2 correlations of education with occupational commitment. According to data presented in Table 7, education is positively and significantly correlated with occupational commitment at Time 1 ($p < .05$) and positively correlated in a significant fashion with occupational commitment at Time 2 ($p < .01$). This finding suggests that one's education becomes more important over time in accounting for one's level of commitment. It seems that rangers with higher levels of education at both time periods report higher levels of occupational commitment, but more so in 1980.

Table 8 indicates that the difference between the Time 1 and Time 2 correlations of education with occupational commitment is not statistically significant. Thus, the null hypothesis cannot be rejected.

Length of service is the third structural variable analyzed. The null hypothesis to be tested concerning this variable was that no significant difference exists between the Time 1 and Time 2 correlations of rangers' length of service with their occupational commitment. As Table 7 indicates, this variable is positively related to occupational commitment though not significantly so, in both 1975 and 1980. Although the positive correlation is somewhat weaker in 1980, Table 8 indicates that the difference between the two correlations is not statistically significant. The null hypothesis, therefore, cannot be rejected. Thus, it appears that length of service is not significantly changed in its relation with occupational commitment over the period studied. Again, this runs counter to the suggestions of those who argue the importance of structural variables. For example, Becker (1960) argues that as one puts more time into an occupation, the time spent becomes viewed as an investment which increases one's commitment to that occupation. The findings for this variable do not support that view, in that length of service was not significantly related to rangers' occupational commitment at either Time 1 or Time 2. Furthermore, the difference between these correlations was not statistically significant. As previously noted, however, these correlations are zero-order correlations and do not take into account other variables which may change the relationship. The results of a regression analysis incorporating all of the structural

Table 8. Results of the Test for Significance of Difference Between Correlation Coefficients, 1975-1980, for the Structural and Attitudinal Variables with Occupational Commitment.

Structural Variables	Occupational Commitment (1975)	Occupational Commitment (1980)	Difference (Z-Values)
Age	-0.0384	-0.0733	.2344
Education	0.1725*	0.2619**	-0.6239
Length Service	0.1013	0.0688	0.2210
% Other Income	-0.0687	-0.1476	.5344
<u>Attitudinal Variables</u>			
Job Satisfaction	0.3886**	0.1583	1.6720
Role Conflict	0.0085	-0.1198	.8657

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

variables as controls will be discussed later in regard to research questions four through six.

Respondents' percentage of income from other sources is a structural variable, which, following the structural argument, is thought to be inversely related to occupational commitment. The less one has in income deriving from a source other than one's primary job, the higher one would predict occupational commitment to be. Furthermore, all other things being equal, such a negative correlation should be higher at Time 2 (1980), since the individual has more of a vested interest in the occupation as one becomes older. The null hypothesis to be tested, therefore, is that no significant difference exists between the Time 1 and Time 2 correlations of percent income from other sources and occupational commitment. As Table 7 shows, this variable is negatively related to the dependent variable at both points in time. The negative correlation at Time 2 is stronger, as the structuralists would predict; however, neither of the negative correlations are statistically significant and only indicate trends possibly worthy of further study. The difference between the two correlations is not statistically different either, as Table 8 indicates; therefore, the null hypothesis of no change cannot be rejected.

Having reviewed the correlations of the structural variables with occupational commitment, attention now focuses on a discussion of the correlations of each of the attitudinal variables with occupational commitment.

Job satisfaction and role conflict represent two sets of attitudes which occupational practitioners, or in this case rangers, have been shown to hold toward their occupations. As can be seen from data presented in Table 7, only one of the structural variables in this study was found to be significantly correlated with occupational commitment in 1975 and in 1980. Furthermore, as Table 8 shows, none of the differences between the Time 1 and Time 2 correlations for the structural variables and occupational commitment were significantly different. By comparison, the reader will note that one of the attitudinal variables in the 1975 data set (job satisfaction) was significantly correlated with occupational commitment. Thus, in terms of occupational commitment, it appears that the attitudinal argument receives just as much empirical support by this study, as does the structural argument. Ironically, however, it should be noted that the structural variable of age was negatively (although non-significantly) correlated with occupational commitment. To learn which viewpoint is given more support as concerns organizational commitment, the reader's attention is directed to a presentation and discussion of the results for research question number three.

Question Three: Organizational Commitment

Research question three examines which, if any, of the structural and attitudinal variables appear to have significantly increased or decreased their relation to rangers' organizational commitment from 1975 to 1980. As in the previous discussion of occupational commitment, results for the structural variables are presented first. The null

hypotheses for all of the independent variables takes the form that "there exists no significant difference between the Time 1 and Time 2 correlations of structural and attitudinal variables with organizational commitment".

In terms of age, one can see from Table 9 that this variable is not significantly related to organizational commitment at either time period. As can be seen, however, age is negatively related to occupational commitment at Time 2. This is very similar to the comparative finding for age and occupational commitment. In both situations, age is negatively correlated to rangers' commitment. Perhaps, as previously suggested for occupational commitment, older rangers become somewhat jaded and lose their sense of commitment following long battles with the realities of organizational life. In short, older workers may simply become disgusted over time with bureaucratic and organizational problems which in turn lessen commitment. Although the correlation for age and occupational commitment in 1975 moves from a weak, positive, nonsignificant relationship to a negative relationship in 1980, the difference between the two correlations is not statistically significant (see Table 10), therefore the null hypothesis for this structural variable cannot be rejected, albeit the trend is noteworthy.

Education exhibits a significant positive correlation to organizational commitment in 1975, as well as a significant positive correlation with organizational commitment in 1980. In other words, it appears that at both time periods rangers with higher levels of education had higher levels of organizational commitment. Interestingly, if one goes back to

Table 9. Pearson Product Moment Correlations of the Structural and Attitudinal Variables with Organizational Commitment, 1975-1980.

Structural Variables	Organizational Commitment (1975)	Organizational Commitment (1980)
Age	.0723	-.0441
Education	.2394**	.2378**
Length of Service	.2051*	.1525
% Other Income	-.1190	-.2094*
<u>Attitudinal Variables</u>		
Job Satisfaction	.3066**	.1641
Role Conflict	-.0933	-.1413

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

Table 7, this is the same pattern as for occupational commitment and education. Thus, education appears to be the structural variable most strongly associated with both occupational and organizational commitment. Perhaps it is true, as Becker (1960) implies, that individuals come to view their education as an investment they have made in an occupation organization, thus they report higher levels of both types of commitment. As Table 10 demonstrates, however, the difference between these two correlations is not significant, thus the null hypothesis is not rejected, although the influence of education upon organizational commitment is noteworthy.

Length of service is the third structural variable to be considered. Table 9 shows that this variable is positively related to organizational commitment at both Time 1 and Time 2, with the Time 1 correlation statistically significant. One should note from Table 10 that the difference between the two correlations is not statistically significant, even though the strength of the relationship between length of service and organizational commitment appears to lessen from 1975 to 1980.

Percentage of income from other sources is a structural variable related to organizational commitment. See Table 9. It is negatively correlated with organizational commitment at both Time 1 and Time 2; however, the Time 2 correlation is markedly stronger and statistically significant ($p < .05$). The difference between the two correlations is not statistically significant; therefore, the null hypothesis cannot be rejected (see Table 10). Thus, while it appears that the negative relationship between percentage of income from other sources and

Table 10. Results of the Test for Significant of Difference Between Correlation Coefficients, 1975-1980, for the Structural and Attitudinal Variables with Organizational Commitment.

<u>Structural Variables</u>	<u>Organizational Commitment (1975)</u>	<u>Organizational Commitment (1980)</u>	<u>Difference (Z-Values)</u>
Age	0.0723	-0.0441	0.7755
Education	0.2394**	0.2378**	0.0140
Length of Service	0.2051*	0.1525	0.3587
% Other Income	-0.1190	-0.2094*	0.6185
<u>Attitudinal Variables</u>			
Job Satisfaction	0.3066**	0.1641	1.0133
Role Conflict	-0.0933	-0.1413	0.3246

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

organizational commitment grows stronger over time, the difference is not statistically significant.

Turning to the attitudinal variables (in Table 9) of job satisfaction and role conflict which represent the attitudinal argument, the variable of job satisfaction is positively and significantly correlated with organizational commitment in 1975. Although the correlation drops to a non-significant level in 1980, the difference between the two correlations is not statistically significant, as indicated in Table 10.

Role conflict is the other attitudinal variable analyzed. As the data in Table 9 indicate, this variable is negatively correlated in a non-significant manner with organizational commitment in 1975 and 1980. Looking at Table 10 one can see that the difference between these two negative correlations is not statistically significant, although the relationship seems to be a little stronger in 1980.

In comparing structural and attitudinal variables with respect to their correlations with organizational commitment, one can see from Table 9 that three out of the four structural variables involve a significant correlation with organizational commitment. In comparison, only one of the attitudinal variables is significantly correlated with organizational commitment. Thus, three out of the four structural variables involve statistically significant correlations while only one out of the two attitudinal variables tested exhibit a similar significant correlation. It appears, therefore, that more support for the "structural" argument, versus the "attitudinal" argument, is

provided by the results of this aspect of the analysis concerning organizational commitment.

As the reader will recall, it was stated earlier that the interpretation and comparison of zero-order correlations must be approached cautiously, since such correlations do not control for the effects of other variables which might change the nature of the original zero-order relationship. In order to clarify further various of the relationships derived from the preceding analysis, regression analyses were performed to indicate the percentage of variation explained in both types of commitment by the structural and attitudinal variables previously analyzed. These issues are the subject of research questions four and five. The results of this inquiry are presented and discussed below.

Question Four: Occupational Commitment

Research question four asks which group of variables (structural or attitudinal) explains more of the variation in occupational commitment in both 1975 and 1980. The answer to this question can be found by examining data found in the left-hand column of Table 11. As the data in this Table indicate, the structural variables account for 2.25% of the variation in occupational commitment in 1975, compared to 13.95% of the variance explained by the attitudinal variables. The pattern is somewhat different for occupational commitment in 1980. The structural variables account for 5.67% of the variance, while the attitudinal variables only account for 3.89% of the variance. Furthermore, it

Table 11. Percentage of Variance Explained in Both Types of Commitment by the Structural and Attitudinal Groups of Variables, 1975-1980.

Variables	Occupational Commitment		Organizational Commitment	
	1975	1980	1975	1980
Structural	2.25	5.67	8.54	5.90
Attitudinal	13.95	3.89	6.60	5.54
Both Groups	15.59	10.05	16.90	13.29

appears that the structural group of variables explain an increasing amount of variation in occupational commitment from 1975 to 1980; however, the attitudinal group of variables have a noticeable decline in the amount of variance they explain from 1975 to 1980. It appears, therefore, that while the attitudinal variables explain more of the variance in occupational commitment at Time 1, their influence declines over time to the point where five years later in 1980 their relationship is comparatively less than the relationship between the structural variables and occupational commitment.

Next let us consider the independent significance of each of the structural versus attitudinal variables as they each independently relate to occupational commitment (when controlled for the effects of each other) (see Table 12). Although the structural variables as a group explain 2.25 and 5.67 percent of the variance in occupational commitment in 1975 and 1980, respectively, none of the structural variables independently relate significantly to occupational commitment in 1975, nor in 1980. It is interesting to note that the variable of education comes very close to being significantly related to occupational commitment in 1980, since a significant F value at the .05 level of significance is 3.84. The b for education is 0.17; thus, for every single unit of change in the scale measuring rangers' education, a corresponding change of 0.17 in the scale measuring rangers' occupational commitment will occur. In general, we can therefore assume that an increase in education among rangers will lead to an increase in the amount of occupational commitment they report.

Table 12. Regression Coefficients of the Structural and Attitudinal Variables as They Relate to Occupational Commitment: 1975-1980.

Structural Variables	1975			1980		
	b	beta	F Value	b	beta	F Value
Age	-0.013	-0.05	0.084	0.011	0.03	0.035
Education	0.20	0.11	0.893	0.48	0.17	2.328
Length of Service	0.027	0.09	0.243	-0.025	-0.05	0.098
% Other Income	-0.008	-0.04	0.114	-0.046	-0.14	1.532
<u>Attitudinal Variables</u>						
Job Satisfaction	0.010	0.38	11.751***	0.039	0.13	1.343
Role Conflict	0.054	0.17	2.510	-0.056	-0.12	1.182

***significant at the .001 level of statistical probability

In regard to the significance of each of the attitudinal variables as they relate to occupational commitment, Table 12 shows that job satisfaction was significantly related in 1975, but by 1980 it ceased to be significantly related to occupational commitment. Role conflict came close to being significantly related in 1975, but by 1980 its relationship to occupational commitment greatly diminished as well.

In summary, for occupational commitment, the structural variables as a group explain more of the variation than the attitudinal variables explain, as time progresses. Independently, however, one of the structural variables (education) approached statistical significance over time, while the significance of all of the attitudinal variables experienced great declines when the effects of other variables in the Table were controlled.

Question Five: Organizational Commitment

Research Question Five investigates which group of variables (structural or attitudinal) explains a greater amount of the variation in organizational commitment in both 1975 and 1980. To address this question, the reader's attention is directed to the right side of Table 11. In 1975, structural variables, as a group, explained 8.54% of the variance in organizational commitment, while the attitudinal group of variables explained only 6.60% of the variance in this same variable. In 1980, structural variables explained 5.90% of the variance in organizational commitment, while attitudinal variables only explained 5.54% of the variance. Thus, it would appear that structural variables

account for a slightly greater amount of the variance in organizational commitment at both Time 1 and Time 2 than do the attitudinal variables. The structural and attitudinal variables, however, appear to show a decline in the amount of the variance they explained from 1975 to 1980. In summary then, the "structural" argument concerning organizational commitment appears to receive noticeably more support in 1975 than does the "attitudinal" argument, in terms of the sample of rangers surveyed in this study. In 1980 the structural argument appears to only have a slight edge over the attitudinal argument.

In regard to the significance of the variables individually, as they relate to organizational commitment, Table 13 indicates that in 1975 and 1980 only one of the structural variables came close to being significantly related to organizational commitment ($F=3.215$). This variable was education which had $b = .44$ in 1975. In other words, for a one-unit change in rangers' education, a corresponding change of .44 units would be expected to occur with respect to organizational commitment. In 1975, only one of the attitudinal variables (job satisfaction) was significantly related to organizational commitment. This variable dropped to a non-significant level, however, by 1980.

In summation, the answer to research question five appears to be that the structural variables explained a greater percentage of the variance in occupational and organizational commitment as time progressed. As was pointed out earlier, for occupational commitment, the structural variables that were analyzed appear to have markedly increased the percentage of variance that they explained from 1975 to

Table 13. Regression Coefficients of the Structural and Attitudinal Variables as They Relate to Organizational Commitment: 1975 - 1980.

Structural Variables	1975			1980		
	b	beta	F Value	b	beta	F Value
Age	0.014	0.05	0.084	-0.021	-0.06	0.110
Education	0.440	0.21	3.215	0.43	0.15	1.794
Length of Service	0.507	0.14	0.644	0.048	0.10	0.335
% Other Income	-0.027	-0.12	1.051	-0.052	-0.15	1.838
<u>Attitudinal Variables</u>						
Job Satisfaction	0.082	0.26	5.109*	0.037	0.12	1.148
Role Conflict	0.008	0.02	0.046	-0.084	-0.18	2.552

*significant at the .05 level of statistical probability

1980. By comparison, the percentage of variance explained in occupational commitment by the attitudinal variables analyzed decreased dramatically from 1975 to 1980. In terms of organizational commitment, while the structural variables accounted for more of the variance in both 1975 and 1980, both the structural and the attitudinal variables experienced declines in their amounts of explained variance. One might speculate that the changes in the structural and attitudinal variables over time may be related to changes that may have occurred in each of the commitment variables over time. This then is the focus of research question six.

Question Six: Change in Occupational Commitment

The first part of research question six asks how much of the variation in occupational commitment change is explained by changes in the group of structural variables versus changes in the group of attitudinal variables. To address this question, the reader's attention is directed to the results of regression analyses which are presented in Table 14 on the next page. As the left side of the Table indicates, the structural group of variables explains 19.13% of the variance in occupational commitment change, while the attitudinal group of variables accounts for 15.18% of the variance; a difference of 3.95 percentage points. Thus it appears that the structural variable changes, as a group, account for more of the variance in occupational commitment change, 1975-1980, than do the group of attitudinal variable changes.

Table 14. Percentage of Explained Variance in Changes of Occupational and Organizational Commitment by Changes in Structural and Attitudinal Variables: Controlling for Occupational and Organizational Commitment at Time 1 (1975).

Variable Group (Change)	Occupational Commitment Change (R^2)	Organizational Commitment Change (R^2)
Structural	19.13	22.90
Attitudinal	15.18	23.39
Both	23.36	29.95

In terms of individual structural and attitudinal change variables, education--a structural variable--was the only change variable found to be significantly related to occupational commitment change. See Table 15. It is interesting to note that role conflict came very close to being significantly related to occupational commitment, as its observed F value of 3.14 needed only to have been 3.84 to be significant at the .05 level.

Question Six: Organizational Commitment Change

The second part of research question six asks how much of the variation in organizational commitment change is explained by changes in the group of structural variables versus changes in the group of attitudinal variables. The answer to this question can be found on the right side of Table 14. The structural variable changes, as a group, account for 22.90 percent of the variance in organizational commitment change, while the attitudinal variable changes, as a group, explain 23.39 percent of the change in organizational commitment. Therefore, the group of attitudinal variable changes accounts for 0.49 percent more of the change in organizational commitment. With such a small difference between the two groups of variables, in terms of variance explained, it becomes very hard to reach a conclusion concerning which of the two arguments discussed earlier, the structural or the attitudinal should be given more credence.

Individually, one of the structural variable changes (education) was found to be significantly related to changes in organizational

Table 15. Regression Coefficients of Changes in Each of the Structural and Attitudinal Variables as the Relate to Changes in Occupational Commitment.

<u>Structural Variables (Change)</u>	b	beta	F Value
Age	0.051	0.15	0.75
Education	-1.64	-0.27	5.81*
Length of Service	-0.088	-0.20	1.36
% Other Income	-0.036	-0.11	1.16
<u>Attitudinal Variables (Change)</u>			
Job Satisfaction	0.021	0.08	0.64
Role Conflict	-0.077	-0.19	3.14
<u>Time 1 Control</u>			
Occupational Commitment (1975)	-0.48	-0.33	8.50**

*significant at the .05 level of statistical probability

**significant at the .01 level of statistical probability

commitment (see Table 16). Similarly, one of the attitudinal variables (role conflict) was found to be significantly related to organizational commitment change.

Table 16. Regression Coefficients of Changes in Each of the Structural and Attitudinal Variables as They Relate to Changes in Organizational Commitment.

<u>Structural Variables (Change)</u>	b	beta	F Value
Age	0.012	0.03	0.043
Education	-1.630	-0.25	5.315*
Length of Service	-0.028	-0.06	0.126
% Other Income	-0.031	-0.09	0.761
 <u>Attitudinal Variables</u>			
Job Satisfaction	-0.014	0.05	0.307
Role Conflict	-0.11	-0.27	6.730**
 <u>Time 1 Control</u>			
Organizational Commitment (1975)	-0.53	-0.40	14.715***

*significant at the .05 level of statistical probability
 **significant at the .01 level of statistical probability
 ***significant at the .001 level of statistical probability

CHAPTER V
CONCLUSIONS AND IMPLICATIONS FOR FUTURE RESEARCH

Introduction

The purpose of this chapter is to summarize the findings of the study, relate the study results to previous research on commitment, and to discuss the implications of the study for future research. The summary of the findings overviews the results obtained for the six research questions, and relates those findings to the structural and attitudinal theoretical arguments. Conclusions are then made concerning the amount of support found for each position. Implications for future research concerning occupational and organizational commitment are then suggested.

Overview of the Findings

The first research question addressed by this study inquired as to whether or not significant differences had occurred in occupational and organizational commitment among the rangers surveyed, from 1975 to 1980. For occupational commitment, a statistically significant decline was found to have occurred during the period under study. A similar result was found for organizational commitment. This type of commitment also experienced a significant decrease from 1975 to 1980. Occupational commitment during this period, however, declined more than did organizational commitment. Thus, by 1980 the levels of occupational and organizational commitment among rangers were approximately the same.

Having indexed the degree of change that occurred between 1975 and 1980 with respect to both occupational and organizational commitment, attention was then directed at testing the comparative predictive utility of two distinct and competing theoretical frameworks, the structural approach, as compared to the attitudinal schema.

Question two asked which, if any, of the structural and attitudinal variables appeared to significantly increase or decrease their relationship with occupational commitment, from 1975 to 1980. One of the structural variables (education) went from a significant zero-order correlation with occupational commitment in 1975, to a stronger and statistically significant correlation in 1980. Two other structural variables (age, percent other income), while not statistically significant, did increase their relationship to occupational commitment, 1975-1980. Age was negatively related to the dependent variable, as was percent income from other sources. The significant correlation of age with occupational commitment, and the increase among the relationships of the other structural variables with occupational commitment was interpreted as modified support for the theoretical argument, as represented by Becker (1960), in light of the negative correlations observed between age and occupational commitment. Essentially, Becker maintains that increases in "investment" variables, such as age and length of service, should be positively associated with occupational commitment. Education was the only structural variable whose correlation with occupational commitment at Time 1 (1975) was significantly different from that at Time 2 (1980).

Less support for the "attitudinal" argument, as represented for example, by Ritzer and Trice (1969) was found in the analysis of research question two. Only one of the attitudinal variables (job satisfaction) was found to have a significant correlation with occupational commitment in 1975. By 1980 job satisfaction was no longer significantly correlated to the dependent variable. None of the differences between the 1975 and 1980 correlations of the attitudinal variables with occupational commitment were significant.

Research question three focused on the changes in correlation coefficients of the independent variables with organizational commitment. Noticeably stronger support for the "structural" argument emerged. Three out of the four structural variables involved a significant correlation with organizational commitment (education, length of service, and percent of income from other sources). Rangers' percent of income from other sources was negatively related to organizational commitment, while amount of education and length of service were positively related.

Turning to attitudinal correlates of organizational commitment, job satisfaction was the only variable found to have a significant correlation with organizational commitment. This correlation occurred in 1975, but was not present in 1980. None of the differences in the correlations from 1975 to 1980 were statistically significant. Thus, little support for the "attitudinal" argument as represented, for example, by Ritzer and Trice (1969), which claims that attitudes toward

one's work are more significant predictors of commitment, was found to be present in this phase of the analysis.

Next, multiple regression analysis was used to examine the group effects of structural and attitudinal variables on both forms of commitment. Research question four focused on which group of variables (structural or attitudinal) explained more of the variation in occupational commitment. In 1975, the structural variables as a group explained 2.25 percent of the variation in occupational commitment, which was 11.70 percent less than was explained by the attitudinal variables. From 1975 to 1980, however, the attitudinal variables, as a group, experienced a dramatic decline in their percent of the variance explained in occupational commitment (3.89). On the other hand, the structural variables increased their percentage of explained variance, such that by 1980 they accounted for 1.78 percent more than the attitudinal variables. Thus, more support for the "structural" versus the "attitudinal" theoretical argument, in terms of occupational commitment was again found.

Research question five asked which group of variables (structural or attitudinal) explained more of the variation in organizational commitment. Again, more support was found for the "structural" theory. In 1975, the structural variables, as a group, explained 8.54 percent of the variation in organizational commitment, which was 1.94 percent more than was explained by the attitudinal variables. In 1980, the structural variables still accounted for more of the explained variance than did the attitudinal variables; however, the difference was slight

as both structural and attitudinal variables experienced a decline in terms of their effects upon organizational commitment.

Based on the fact that results attained from research question one found significant changes among the rangers surveyed in both their occupational and organizational commitment from 1975 to 1980, question six of this study asked if the changes in occupational and organizational commitment might more fully be explained by change in the structural group of variables, or by change in the attitudinal group of variables. The results of the analysis for this question indicated that for occupational commitment, the structural variable changes, as a group of variables, explained 19.13 percent of the variation in occupational commitment change. The attitudinal variable changes, as a group of variables, explained 15.18 percent of the variance in occupational commitment change, a difference of 3.95 percentage points. While both groups of change variables did explain moderate amounts of variance, the structural variables as a group appeared superior once more. Thus, in three different phases of analysis (zero-order correlations, comparison of R-square values for groups at Time 1 and Time 2, and comparison of R-square values for groups of variables as change scores), the structural group of variables appears to demonstrate a greater relationship to occupational commitment than do the attitudinal variables.

In terms of organizational commitment changes, a somewhat different finding emerged from the analysis. The structural variable changes, as a group, explained 22.90 percent of the variance in organizational commitment change, while the group of attitudinal variable changes

accounted for 23.39 percent of the variance. The attitudinal variables, then, accounted for slightly more of the variance (0.49 percent). Thus, it appears that the structural and attitudinal variables, as groups, account for nearly equal amounts of the variance explained in organizational commitment change. As individual variables, only one of the structural change variables (education) was significantly related to changes in organizational commitment. Regarding the attitudinal variable changes, as individual change variables, only one of these variables was found to approximate a significant relationship to organizational commitment. This was the variable of role conflict. In short, it appears that the structural and attitudinal theoretical arguments receive equal support in terms of explaining changes in organizational commitment.

The results of the change analysis for occupational and organizational commitment change have been reviewed. Structural and attitudinal variables, as individual change variables, were largely insignificantly related to the change in the dependent variables. Yet, the combined effects of their changes were found to differentially account for moderate amounts of explained variance in both occupational and organizational commitment change. It appears that for occupational commitment change a "structural" theory is a more viable explanation than an "attitudinal" argument. But when accounting for changes in organizational commitment, equal support appears for both arguments.

Implications

This study pointed out that rangers' commitment to their occupation and to their local employing organizations declined significantly from 1975 to 1980. Theoretically, both types of commitment could continue to drop over time. Commitment could reach a point low enough to where rangers actually leave their occupation and/or organizations. Thus, high rates of turnover may occur among the sample of rangers at a future point in time. If not, and rangers remain in their occupation/organizations, while continuing to report lower levels of commitment over time, they may begin to perform their jobs at a low level of efficiency compared to the effort committed and satisfied employees might exert. Not only might the local organizations and the greater occupation suffer from less committed, poorly performing rangers, but the general public and industry might suffer as well. The ranger occupation is a service occupation whose dual mission is to promote the conservation and maintenance of our country's public parks and recreational facilities, as well as facilitate the intelligent harvesting of our nation's forests. Non-committed employees charged with such responsibilities may not feel obliged or motivated to carry out such duties. Public park and recreational systems could ultimately deteriorate. Industries which rely on wood, and upon guidance from forest rangers in the harvesting of wood for the manufacturing or distribution of products deriving from wood, could suffer economic losses. Therefore, as Richard Holton (1960), Wilbert Moore (1965), Katz and Kahn (1966), and others have pointed out, a lack of commitment among employees has the potential to seriously

threaten the survival of organizations, as well as interfere with the lives of individuals who rely upon those organizations. Thus, as the structural functionalists maintain, a change in one aspect of the social system often leads to ramifications experienced in other segments of the social structure.

In addition to the practical considerations just discussed, the results of this study suggest certain theoretical implications. As elaborated in the last chapter, the study findings concerning occupational and organizational commitment offer more support for the "structural" argument, versus the "attitudinal" argument. Only in terms of change in organizational commitment do the structural and attitudinal arguments appear to receive equal support. The structural argument maintained that forces which are largely outside of the control of individuals, such as one's age, for example, affect the level of commitment individuals report. It can be argued that the variables employed by this study to represent the structural argument are reasonably out of individuals' control. One's educational level, for example, has traditionally been dependent on such factors as one's sex, race, and economic standing; these are factors governed by forces beyond individual control. Length of service within an organization, as well as opportunities for supplemental income, are variables which are largely influenced by conditions within the marketplace, such as the supply and demand within society for particular goods and services which various occupations provide. Great demand for a good or service affects the opportunities individuals have in terms of their occupational

mobility and/or their chances of receiving a supplemental income, as in the case of consulting opportunities for practitioners.

Social forces which are beyond the complete control of the individual, such as the examples discussed in the preceding paragraph, can affect individual levels of commitment. A number of classical social theorists have discussed how certain social forces relate to the commitment of societal members to particular forms of social organization. Marx, for example, maintained that capitalistic economic systems are attended by an ideology which emphasizes such values as those of labor exploitation, production of goods and services primarily for the sake of profits, and concentration of property ownership. Commitment to such values by those in power are argued as influencing the development of bourgeois work organizations which are characterized by Marx as mass-production oriented and oppressive. He maintained that various forms of alienation abound in these organizations which employ the masses in routinized and monotonous labor. He implied that massive alienation, class polarization and class consciousness, and certain outcomes from the nature of capitalistic competition, would be some of the factors which would interact and eventually lead the proletariat to drop their commitment to bourgeois values and to the organizations which symbolize bourgeois ideology. As Marx predicted, the proletariat would revolt. Marx advocated the creation of a communistic social system which would reinforce commitment to a set of values which give priority to the unshackled opportunity for individuals to realize their potential within their relations to the means of production.

Durkheim is another classical theorist whose writings imply that commitment to certain values influence the nature and form of social systems. Durkheim discussed the "mechanical and organic" types of societies. In brief, the mechanical societies are characterized by members who are committed to the maintenance of tradition and custom which entails a clan-based organizational form. The clan structures, both familial and political in nature, promote, for example, intimate forms of social relations and occupational homogeneity.

Organic societies, however, are characterized by large heterogeneous populations in which members are more committed to instrumental values. Such values, which emphasize self-enhancement, are argued by Durkheim to lead, for example, to occupational specialization, contractual social relations, and restitutive systems of law. In short, Durkheim implied that cohesion and solidarity within each type of society, mechanical and organic, is influenced by commitment to differential value systems.

Max Weber also argued that commitment to a particular value system affects social organization. Stated succinctly, Weber maintained that commitment to the values of the "Protestant Ethic" (e.g., the Calvinistic concept of pre-destination, the notion of a life's "calling" and belief in the virtues of hard work, individual success and personal achievement) stimulated the rise of capitalistic economic organization.

In turn, Weber argued that capitalism generated the development of bureaucracies, which were ideally designed to promote the efficiency of production demanded by capitalism. Commitment of employees within these

bureaucracies was then maintained by various economic and social incentives which revolve around the concepts of financial remuneration, promotion, tenure and job security, as well as the acquisition of responsibility and social power which is associated with positions of responsibility.

To summarize, certain forces which are beyond the immediate control of the individual have the potential to affect employees' commitment to their organizations and occupations. A variety of such forces has been suggested and discussed by various classical social theorists. In support of the theoretical arguments presented above, this study found that as a group, certain "structural" variables which are beyond the immediate control of the individual are related to occupational and organizational commitment among the sample of rangers. In contrast, this study found that certain "attitudinal" variables, as a group, accounted for less of the variance in both types of commitment. The interactionist theoretical argument, which the attitudinal variables represented, as advocated for example by Ritzer and Trice (1969), claims the supremacy of subjective, perceptual and attitudinal states of individuals in terms of their influence upon behavioral outcomes. While the attitudinal characteristics of the rangers in this study did explain some of the variance in occupational and organizational commitment, their influence was less than that of the structural variables.

Suggestions for Future Research

The purpose of this study was to compare and contrast the relationship of the structural and attitudinal variables to both occupational

and organizational commitment. While the primary focus of this study concerned the two approaches above, one should not lose sight of the myriad of other factors that may conceivably influence employee commitment.

A wide variety of changes within the occupation could have taken place during these years which may account for the decline in occupational commitment noted among the rangers. The following examples are suggested as speculation to account for the observed decline. An over-supply of qualified personnel for a limited number of jobs within the occupation could have taken place creating fierce competition for a small number of jobs and limited chances for promotion and mobility within the occupation. Such a drop in occupational commitment may indicate that rangers in earlier stages of their careers, being somewhat "fresh out of school" in which indoctrination to a professional or "cosmopolitan" orientation has probably occurred, and being that they have had relatively less experience with employing organizations than five years later in 1980, they may be more likely to report greater commitment in 1975 to the larger occupation than to any single employing organization. Perhaps, however, as time passes, and rangers begin to experience the problems associated within their occupation, their satisfaction with the occupation begins to wither and they report lower levels of commitment to the occupation, such that by 1980 their levels of occupational and organizational commitment are roughly the same.

A similar type of speculation can be offered for the decline in organizational commitment. As the rangers come to experience the often

harsh and disappointing aspects of organizational life, their commitment to the organization may wane. Thus, it was found that commitment among the sample of rangers in this study had, by 1980, dropped to a point where the levels of occupational and organizational commitment were nearly the same.

Other organizational changes may have taken place to account for the decline in organizational commitment. Such intra-organizational changes such as limitations put on access to resources, increased impersonality, and increases in hierarchies of authority, or the like, may have occurred, thereby resulting in a decrease in commitment. It is also possible that changes in the very nature of rangers' tasks, mandated by organizational dictates, may have transpired. If such task changes resulted in less challenging work, a corresponding decline in commitment could well have occurred. As the reader will recall from the literature review, empirical research shows that workers are less committed when they operate in task environments which offer monotonous and repetitive jobs.

One could also speculate that changes may have occurred in the technology rangers traditionally use to accomplish their organizational goals. For example, computerized communication systems may have been introduced to the ranger occupation. It is possible that such systems have eliminated a great deal of the face-to-face interaction with other people, which previously may have been a major source of job satisfaction and commitment among the rangers. Now, they may simply stare at

the screen of a computer terminal to get much of the information they previously received from personal communication with other people.

Finally, one could speculate that the observed decline in both types of commitment is related to the nature of the sample. This study surveyed a sample of governmental employees. Commitment may be different between governmental employees and workers employed by private industry. There may, for example, be less ambiguity in governmental organizations concerning the criteria for promotion. Ambiguity concerning such anxiety-provoking matters as promotion may be higher in private industry, which in turn may be associated with lower levels of commitment. Future research might investigate differences in commitment between governmental and private sector employees.

In conclusion, this study has demonstrated that certain structural and attitudinal groups of variables and their changes differentially account for moderate amounts of the variance in occupational and organizational commitment. More research is needed which will account for the variance in occupational and organizational commitment that is not explained by the structural and attitudinal groups of variables used in this study. I would suggest that certain of the variables listed in Table 3 of Chapter Two be researched in terms of their effect upon occupational and organizational commitment among rangers. It would be valuable to know, for example, the nuances within the following variables which may relate to commitment within the ranger occupation/organizations: conflict, perceptions of marketability, sense of professionalism, success and esteem derived from the job, organizational

position, work place conditions, the reward structure, availability of resources for job assignments, and other attitudinal dimensions of rangers (such as need for achievement and recognition, for example). Hopefully, future research will procede along the lines suggested and perhaps extend the interval of time over which subjects, whose commitment is being analyzed, are studied.

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APPENDIX A

Dear Ranger

The questionnaire which accompanies this letter is being sent to you in order that we may do a follow-up study to the one which we did back in the summer of 1975. As in our earlier survey, we are interested in learning your views toward your work and organization for whom you are employed. Hopefully by comparing the way in which you view your job now with the way in which you viewed it back in 1975, we can come to some conclusions as to those factors which affect your overall level of job satisfaction. Since a comparison over time is crucial to the success of our study, we earnestly request your cooperation in filling out the enclosed questionnaire and returning it in the stamped envelope which has been provided.

Since we do not wish to impose greatly upon your already busy schedule, we have substantially shortened the original list of questions which we asked you back in 1975. Consequently, it should take you no more than 20-30 minutes to complete the 1980 questionnaire. Virtually all items are quite brief and require no more than a simple check mark.

Please take the time to fill out the enclosed questionnaire and return it in the envelope provided. All responses will be held in strictest confidence and will greatly aid the agency for whom you work in becoming more responsive to the job contingencies of rangers throughout the country. Only if we receive your 1980 questionnaire can we complete our comparison based on your 1975 responses. Thank you for your cooperation.

Sincerely,

William E. Snizek, Ph.D.
Director, U.S. Ranger Project

Enclosures

Virginia Park and Forest Ranger
Follow-up Survey

Instructions

Included in this questionnaire are a number of short questions requiring, for the most part, no more than a check (✓) mark. Please be as candid as possible in answering these questions. Apart from the initial background questions, there are no right or wrong answers to the questions that are asked. Instead, we are simply asking, in many instances, for your opinion.

For purposes of comparing your current opinions with those of 1975, this questionnaire has been numbered. Be assured that all answers will be kept in strictest confidence, and that your answers will be merged with those of others so as to get a total picture of rangers currently working throughout the state.

CAREER ALTERNATIVES

1. Assume you were offered a job in a field other than your occupation. Would you leave under any of the following conditions?

	<u>Yes</u> <u>Definitely</u>	<u>Uncertain</u>	<u>No</u> <u>Definitely Not</u>
1. With a slight increase in pay?	_____	_____	_____
2. With a slight increase in job freedom?	_____	_____	_____
3. With a slight increase in status and responsibility?	_____	_____	_____
4. With a slight increase in friendliness of co-workers?	_____	_____	_____
5. With a slight increase in opportunity to get ahead?	_____	_____	_____

2. Assume that you were offered a job in a related field but in another agency. Would you leave under any of the following conditions?

	<u>Yes</u> <u>Definitely</u>	<u>Uncertain</u>	<u>No</u> <u>Definitely Not</u>
1. With a slight increase in pay?	_____	_____	_____
2. With a slight increase in job freedom?	_____	_____	_____
3. With a slight increase in status and responsibility?	_____	_____	_____
4. With a slight increase in friendliness of co-workers?	_____	_____	_____
5. With a slight increase in opportunity to get ahead?	_____	_____	_____

GENERAL JOB SATISFACTION

Some jobs are more interesting and satisfying than others. We want to know how you feel about your job. Please read the statements found below and circle either "Strongly agree", "Agree", "Undecided", "Disagree", etc., depending on how you feel about your present job. There are no right answers. We would simply like your honest opinions on each one of the statements.

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
1. My job is like a hobby to me.	SA	A	U	D	SD
2. My job is usually interesting enough to keep me from getting bored.	SA	A	U	D	SD
3. It seems that my friends are more interested in their jobs.	SA	A	U	D	SD
4. I consider my job rather pleasant.	SA	A	U	D	SD
5. I enjoy my work more than my leisure time.	SA	A	U	D	SD
6. I am often bored with my job.	SA	A	U	D	SD
7. I feel fairly satisfied with my job.	SA	A	U	D	SD
8. Most of the time I have to force myself to go to work.	SA	A	U	D	SD
9. I am most satisfied with my job for the time being.	SA	A	U	D	SD
10. I feel that my job is no more interesting than others I could get.	SA	A	U	D	SD
11. I definitely dislike my work.	SA	A	U	D	SD

	<u>Strongly</u> <u>Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly</u> <u>Disagree</u>
12. I feel that I am happier in my work than most other people.	SA	A	U	D	SD
13. Most days I am enthusiastic about my work.	SA	A	U	D	SD
14. Each day of work seems like it will never end.	SA	A	U	D	SD
15. I like my job better than the average worker does.	SA	A	U	D	SD
16. My job is pretty uninteresting.	SA	A	U	D	SD
17. I find enjoyment in my work.	SA	A	U	D	SD
18. I am disappointed that I ever took this job.	SA	A	U	D	SD

OCCUPATIONAL CONCERNS

Below is a list of statements that concern a person's job. Please read each statement and indicate the extent to which you agree by circling either "Strongly Agree", "Agree", "Undecided", "Disagree", or "Strongly Disagree".

	<u>Strongly Agree</u>	<u>Agree</u>	<u>Undecided</u>	<u>Disagree</u>	<u>Strongly Disagree</u>
1. I have to do things that should be done differently.	SA	A	U	D	SD
2. I have to work on unnecessary things.	SA	A	U	D	SD
3. I have to do things that are against my personal principles.	SA	A	U	D	SD
4. I receive assignments without the proper help to complete them.	SA	A	U	D	SD
5. I receive assignments without adequate resources and materials to execute them.	SA	A	U	D	SD
6. I work with two or more groups who operate quite differently.	SA	A	U	D	SD
7. I have to buck a rule or policy in order to carry out an assignment.	SA	A	U	D	SD
8. I receive incompatible requests from two or more people.	SA	A	U	D	SD
9. I do things that are apt to be accepted by one person and not accepted by others.	SA	A	U	D	SD
10. I frequently have much more to do than I can handle during the available time at work.	SA	A	U	D	SD

Education - highest grade completed (Check one.)

- a. Graduate or professional training
 b. Standard college or university graduate
 c. Partial college training or technical school
 d. High school graduate
 e. Partial high school (10-11)
 f. Jr. high school (7-9)
 g. less than 7 years

Present marital status (Check one.)

- Divorced or separated
 Widowed
 Married
 Single

Approximately what is your yearly income? _____

Quite often, persons hold part-time jobs in addition to their full-time employment. Do you receive any income from such a job or any other source (not counting your wife's income), other than your salary as a ranger?

- No
 Yes (Please specify.) _____

If yes, approximately what percentage of your total income comes from such sources? _____%

After completing the questionnaire, please return it in the enclosed, self-addressed, stamped envelope.

Thank you.

_____ If you desire a copy of the finish report from this survey, check the space at left.

Return address: William E. Snizek
 Department of Sociology
 Virginia Tech
 Blacksburg, VA 24061

APPENDIX B

Dear Ranger

As you may recall, approximately three weeks ago you received a questionnaire in which you were asked to respond to a number of items concerning, among other things, your attitudes toward involvement in the occupation of ranger. Since that time, I am extremely pleased to announce that, as of the date of this mailing, 65 or approximately 50% of the original sample surveyed have completed and returned their questionnaires. This overwhelming cooperation on the part of the professionals surveyed has been most gratifying in that it has greatly aided in making the study which we have undertaken a success.

While many have already returned their completed questionnaires, we realize that for some it may have been misplaced or arrived, for one reason or another, at an inopportune time. In view of this, we have taken the liberty of enclosing another copy of the original questionnaire along with a self-addressed stamped envelope in the hope that those who have not already completed and returned their questionnaires may now be able to do so. Again, I wish to point out that the enclosed questionnaire is quite brief, with a large majority of items requiring no more than a check mark. The average time required to fill out the questionnaire itself has been shown to be approximately 15 minutes.

In closing, I wish to again express my deep gratitude to all those whose generous giving of their time and thoughts have aided in making this study a success.

Sincerely yours,

William E. Snizek
Director, U.S. Ranger Project

Enclosures (2)

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the scanned document**

AN EXAMINATION OF THE RELATIONSHIP OF
STRUCTURAL AND ATTITUDINAL VARIABLES TO
OCCUPATIONAL AND ORGANIZATIONAL COMMITMENT

by

Robert Eugene Little

(ABSTRACT)

This study attempted to test the predictive utility of two competing theoretical arguments present in the job commitment literature. The first argument, called the "structural" approach, maintains that commitment is best explained by structural traits of workers. Such traits refer to objective characteristics of individuals and include, for example, the educational level of workers, their occupational length of service, and age. The second argument, labeled the "attitudinal" approach, claims that various subjective characteristics of workers best account for commitment. Such attitudes include, for example, employees' perceptions of their satisfaction and role conflict within their jobs.

Variables representing each theoretical argument, as well as scales measuring occupational and organizational commitment were used in a 1975 survey of a sample of park and forest rangers working in the state of Virginia. In 1980, follow-up data were collected from the original sample. Difference of mean tests, zero-order correlation, multiple correlation, and multiple regression were used in the data analysis.

The results of this study show that both occupational and organizational commitment significantly declined among the rangers surveyed from 1975 to 1980. During the time period of the study, the structural variables accounted for a greater percentage of the variance explained in both occupational and organizational commitment. Implications for the two theoretical arguments are discussed.