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Commitment and volunteer organizations: Variables influencing participation in environmental organizations

Dresbach, Sereana Lynn Howard, Ph.D.

The Ohio State University, 1992
Commitment and Volunteer Organizations: 
Variables Influencing 
Participation in Environmental 
Organizations

Dissertation

Presented in Partial Fulfillment of the Requirement 
for the Degree of Doctor of Philosophy in 
the Graduate School of the Ohio State University

by

Sereana Lynn Howard Dresbach, B.A., M.S.

* * * *

The Ohio State University
1992

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Dr. Joseph Donnermeyer
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To my husband and best friend,

Eric,

for all of your love and support.
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Howard, S.L. and J.E. Heimlich (1990) Community Development Fact Sheets:
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The Safety of Newsprint Bedding, CDFS 122
Newsprint Bedding for Horses and Sheep, CDFS 123
Absorbency of Newsprint, CDFS 125
Preparing Newsprint for Bedding, CDFS 126,
Newsprint Bedding for Dairy Cattle, CDFS 127,
Adapting Farm Equipment for Newsprint Bedding, CDFS 128, Dresbach,
S.H. Dresbach and J.E. Heimlich (1992)
Whole Newsprint for Livestock Pens, CDFS 12,
Columbus, Ohio: Ohio Cooperative Extension Service, The Ohio State University.

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Ohio Cooperative Extension Service, The Ohio State University.

Fields of Study

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Environmental Sociology

Community Development
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Increasingly important to the sociological study of recreation behavior is the concept of commitment. Unfortunately, the application of commitment has been inconsistent. The result is that the definition of commitment varies from study to study, but has referred to such diverse social phenomenon as loyalty, dedication, devotion, attachment, investment, achievement, goal directed behavior, and motivation, among others (Turner 1987; Klandermans and Oegema 1987; Hollenbeck and Brief 1987; Hollenbeck and Klein 1987; Becker 1960; Buchanan 1985; Kanter 1968; Locke 1968; Erez and Zidon 1984; Yukl and Latham 1978; Frost and Mahoney 1976). It has been utilized as a factor to explain such diverse issues as conflict among recreation user groups, social roles associated with recreation behaviors, and attitudes toward recreation (Bryan 1977, 1979; Wellman et al. 1982; Baumgartner and Heberlein 1980, 1981; Jacobs and Buchanan 1981; Jacob and Schreyer 1980; Vaske 1980; Buchanan and Howard 1986).

Despite its extensive utilization in recreation research, commitment has been used sparingly to examine volunteer behavior in environmental organizations. This is surprising since environmental organizations often have a recreation function to their activities (Dennis and Zube 1985, 1988). In addition, most envi-
ronmental organizations are highly dependent for their functioning on the commit-
ment of their volunteer members. Volunteer groups range from large to small.
Those directly working for large organizations are more likely to have an ideologi-
cal basis for their participation, but would this also be true of many small local
groups?

Bellah et al. (page 283), in the now famous work, Habits of the Heart, ask
the questions:

"How does one explain groups concerned with interests of the public
good? What could lead such individuals to sacrifice their self inter-
est to the public good and consciously link their destinies to those
of their ancestors, contemporaries, and descendants?"

Gordon and Babchuck (1959), Smith (1975), and Godwin and Mitchell (1982)
distinguish between two different types of volunteer organizations: expressive and
instrumental. Expressive organizations provide benefits only to members, such as
the case with many private sports clubs. Instrumental organizations include those
volunteer groups which provide benefits to the greater society. For most environ-
mental groups, the goal is the betterment of the environment as a public good and
are therefore instrumental in nature. But the question remains: Why do people in
environmental organizations make a commitment to volunteer for the betterment
of a public good?

Involvement in organizations and groups is not unique to any culture.
However, the American public has been characterized as a nation of joiners (Curtis
Nineteenth century French social historian Alex de Tocqueville said (Lawrence 1985):

"Americans of all ages, all stations in life, and all types of disposition are forever forming associations. There are not only commercial and industrial associations in which all take part, but others of a thousand different types-religious, moral, serious, futile, very general and very limited, immensely large and very minute.... In every case, at the head of any new undertaking, where in France you find the government and in England in some territorial magnate, in the United States you are sure to find an association."

Implicit in this "penchant for 'getting involved' is the notion of the relationship between self and society" (Bellah et al. 1985). Involvement in volunteer groups is an important source for individuals' definitions of self-esteem and self-identity in American society. Volunteer groups function as links between individuals and larger societal structures (Bellah et al. 1985, Kornhauser 1959).

People become involved in environmental groups for a variety of reasons. Identification with the goals and objectives of organizations can prompt an individual to choose the activities of one group over others. Identification with goals further contributes to the individual's conscious choice to participate. Involvement, continuing participation, and identification with goals can create investments that further integrate the volunteer group into the individual's social world.
Buchanan (1985) outlines three elements that compose commitment: affective attachment, side bets and focused behavior. Buchanan's definition is based on Becker's (1960) side bet hypothesis, Kanter's (1968) notion of affective attachment, and the concept of focused behavior developed and used by several researchers (Becker 1960; Kanter 1968; Allutto et al. 1973; Lee and Zeiss 1978; Payne and Elifson 1976; Johnson 1973). Becker's (1960) side bets hypothesis states that one aspect of commitment is when an individual invests or stakes something of value (originally unrelated to the present behavior) to maintain behavioral consistency. Kanter's (1968) notion divides affective attachment into three general categories along a continuum from 1) "continuance", which is based on perceived benefits and costs of continuing behavior; 2) "cohesion", which may be defined as the maintenance of group solidarity; and 3) "control", which is based on internalization of group's norms, values and goals. Focused behavior is best described as consistent behavior and implies the rejection of alternative behaviors (Becker 1960; Kanter 1968; Allutto et al. 1973; Lee and Zeiss 1978; Payne and Elifson 1976; Johnson 1973). Can the strength of commitment be measured by these three components with reference to volunteer participation in environmental organizations? What factors explain level of commitment among volunteers? These questions will be investigated in this research.
Environmental Movement In American Society

One of the largest and most influential social movements of the twentieth century is the environmental movement. At different times it has been known as the "conservation movement" or "green think". However, the environmental movement encompasses more than tree planting, waste separation, and pushing whales back into the ocean. The environmental movement is characterized by fundamental changes in the everyday living of individuals through both legislated and voluntary action. An individual's choice to participate, change, or contribute is an aspect of commitment to the environmental movement. If an individual consciously chooses to make changes in everyday living practices to conserve, reduce, or find an alternative source, that person has exhibited environmental concern. When many people throughout the population exhibit behaviors that reflect this environmental concern, then these actions can be considered part of the environmental movement.

The environmental movement has had many peaks and valleys throughout the past one hundred years. Historians will debate about the actual beginning of the environmental movement, however, most will agree there were several key people who helped bring a conservation ethic to the public's attention. Henry David Thoreau (1851) was a transcendentalist who believed that the natural world symbolized the spiritual world. He further wrote that man needed nature in wild forms to "re-create" civilized man for strength and creativity. Gifford Pinchot has been termed the driving force behind the conservation movement at the turn of
the century. Pinchot was instrumental in bringing public support to the conservation ethic. Theodore Roosevelt, often called the "Conservation President", was the first president to make natural resources a national public policy priority.

Key people such as Roosevelt, Pinchot, and McGee furthered the conservation ethic by implementing legislation and practices that would not only protect the natural resources of the western states, but those same conservation practices could be applied to the rest of the nation as well. The turn of the century witnessed America expanding ever farther into the western states. This expansion brought people from eastern and midwestern states that practiced intensive farming. These same farming practices could not be applied in the western U.S. Subsequently, the land was cleared, farmed for one or two productive years, and then it lost its production potential. Many people "moved on" to other western areas because there appeared to be so much land and resources for anyone who wanted it. Federal reclamation was launched with the passage of the Bureau of Reclamation in 1902 and the Antiquities Act of 1906 which established presidential designation of unique sites, now known as monuments. WJ McGee (1910) was representative of a group known as progressive conservationists who promoted the concept that land could be used for several purposes and not held in exclusive trust.

The 1920s and 1930s was a significant time for the conservation or environmental movement. Changes in the economic and political structures of the United States and the world further strengthened the environmental movement.
The Depression of the 1930's awakened America not only to the problems of unemployment, but also to a realization for physical maintenance of its "treasures", such as the national parks. President Franklin Roosevelt implemented such organizations as the Civilian Conservation Corps and the Tennessee Valley Authority. The Civilian Conservation Corps (CCC) repaired, replaced, and built structures in the park system, as well as created watershed projects and timber projects within the forest system. The CCC served several purposes, including an economic function of employing people, a social function of building and maintaining structures for the public good, and an environmental function by establishing structures to effectively use natural resources. The Tennessee Valley Authority provided not only flood control and natural resource management, but also promoted economic development for the area. The Great Dust Bowl of the 1930s contributed to public acceptance of the need for conservation practices on farms and ranches.

Social unrest in the 1960s and 1970s created turmoil for many aspects of American life: military involvement overseas was questioned on college campuses and traditional political and social structures were scrutinized. The economic world was also questioned, specifically related to the environmental practices of many companies. During this time, Rachel Carson wrote extensively on the consequences of pesticides, specifically DDT. Her book, *Silent Spring* (1962) triggered widespread recognition of the inter-relationship of living things and their environment and how they adversely affected by pesticides and other man-made
items. Public support for environmentally conscious practices was highlighted by the passage of several pieces of legislation to "clean up" the environment and monitor further use of natural resources. Legislation included clean air and clean water legislation, protection of endangered species, and creation of the Environmental Protection Agency.

Recently, the environmental movement reached another high point with the celebration of the twentieth anniversary of Earth Day in 1990. Since then there has been a renewed effort to be "environmentally conscious". Environmental issues of the 1990s include waste management, reduced packaging, recycled materials, and reusable goods. Curbside separation of materials has become a standard practice in many cities, towns, and rural areas. Changes in daily living practices can be attributed to a renewed environmental ethic which stresses that not all resources are renewable. Unlike the 1970s, environmental consciousness is viewed by many corporations as good business. For example, McDonald's, Inc. has replaced polystyrene food containers with paper and paper-based food packaging.

Several studies have indicated that membership in environmental organizations is positively related to increased levels of environmental concern (Harry et al. 1969; Tucker 1978; Weigel and Weigel 1978). The recurring theme is that membership in these organizations is voluntary in nature.

The environmental movement has spawned many groups, most of which are local. Some of these are very activist, such as a university animal rights chapter.
However, most local voluntary groups are involved in routinized goals and activities. Ideological fervor as a means of commitment is problematical.

Social movements, such as the environmental movement, are largely dependent on volunteer behavior. Volunteer behavior is essential for social movements, but not solely sufficient to maintain a movement. Many of the same characteristics of social movements behavior can be attributed to volunteer behavior in local groups. Resource mobilization theory has been applied to behavior in social movements. Can these same principles can be applied to volunteer behavior at the local level?

**Purpose of the Study**

Increased awareness in the environment will continue to grow. Relatively unresearched until now, however, is the commitment of volunteers to local environmental organizations. In this dissertation, the researcher will develop a model of commitment by volunteers to local environmental groups. The model will identify three components of commitment: focused behavior, side-bets, and affective attachment. The theorized elements include the importance of outdoor recreation to the participant's social world, demographic information, and type of organization. This research will test each factor's contribution to the strength of commitment as well as test the model as a whole. This model will further enable researchers to predict levels of commitment among volunteers.
Significance of Study

This study is significant for both theoretical and practical reasons. There are numerous studies that describe people who volunteer (Ellis and Moyer 1990; Dunn 1989; Prestby 1988; Asche 1987; Hyman and Wright 1971, 1974; Knowles 1972). Understanding volunteer behavior is important to the study of American culture and society (Smith 1975; Ellis and Moyer 1990). Hence, understanding volunteerism in environmental groups is important to understanding volunteer behavior in general and to understanding an important aspect of contemporary American society.

Commitment is an important component to further understand the motivations and continuing behavior that is fundamental to social movements and collective actions. Commitment has been used to explain participation in religious sects, organizational behavior and volunteer participation (Kanter 1972; Klandermans 1984; Ellis and Moyer 1990). Commitment, as a research component, can help explain environmental group volunteer behavior and thus provide insight into volunteer behavior on a larger scale.

Researchers know a significant amount about who volunteers (Turner 1987; Klandermans and Oegema 1987; Hollenbeck and Brief 1987; Hollenbeck and Klein 1987; Becker 1960; Buchanan 1985; Kanter 1968; Locke 1968; Erez and Zidon 1984; Yukl and Latham 1978; Frost and Mahoney 1976). But we know little about the committed behavior of these people. There exists a tremendous need
for understanding why people continue to volunteer and why they are committed to the organization.

From the applied aspect of research, environmental organizations are dependent on volunteerism. Fundamental to many of these organizations is the behavior of a few to act for the betterment of a public good, thus carrying out the mission and goals of the organizations. Many of the largest environmental organizations, such as the Sierra Club and Audubon Society, are national by nature and have hundreds of local chapters. Large volunteer groups also represent recreation interests related to environmental concerns, such as the National Rifle Association and the Rails to Trails Conservancy.

Understanding commitment of participants in volunteer organizations is essential to the acquisition of effective volunteer management techniques by program directors. In this particular study, understanding commitment to environmental organizations can help managers more effectively retain and utilize their volunteers.

**Overview**

This dissertation is divided into five chapters. In this chapter, the discussion has been an overview and rationale for the study. Chapter II includes a review of the literature related to social movements, collective actions, commitment, environmental concerns, and demographic information. Chapter II will also present the research model and related hypotheses. Chapter III addresses the methodology,
including discussion of data collection, operationalization of variables and data analysis. Chapter IV is the presentation of results. Chapter V summarizes the findings and draws conclusions based on the study findings, interpretation of hypotheses, implications of study findings for application to volunteer management, and recommendations for future research.
Chapter II
Commitment and Volunteer Organizations

A major source of change within many societies is the social movement. Social change occurs because people are willing to engage in organized and controversial action (Fireman and Gamson 1979; Macionis 1991). However, Snow et al. (1986) write, there is a "long standing and central problem in the field of social movements that concerns the issue of support for and participation in social movement organizations and their activities and campaigns." There is a growing recognition that an understanding of this issue requires consideration of both social psychological and structural/organizational factors (Snow et al. 1986).

Once considered a "passing fad", the environmental movement has matured and continues into the 1990's. Heberlein (1972) attributed the rapid ascendance of the environmental crises to the general moral turbulence of the sixties and the breadth of its popular appeal. Organized interests and groups are today involved in the "promotion" of environmental awareness on hundreds and even thousands of issues, including wilderness preservation, national and state park support groups, zoological park volunteers and donors, wildlife promotion groups, business inter-
ests based upon natural resources and energy production, and thousands of other campaigns.

The purpose of this chapter is to explore literature related to social movements, outdoor recreation and environmental concern and build a model of commitment by volunteers to local organizations. Local volunteer environmental groups are not part of a social movement in the strict sense of the definition, but McCarthy and Zald (1977) suggest that they are part of the social movement industry and may be considered spin-offs from it. The model predicting commitment will be based on resource mobilization theory. Within resource mobilization theory, commitment is a central concept because the theory attempts to predict the growth and decline of social movements by their ability to attract and mobilize resources, especially human resources.

This chapter will cover definitions and theories of social movements, similarities and differences between social movements and volunteer groups, and aspects of social movement literature and volunteer literature related to involvement in environmental groups. Central to this review is the concept of commitment to volunteer action. Hypotheses concerning all aspects of the model will be introduced at the end of the chapter.

Theories of Social Movements

Definitions

A social movement is defined in sociology textbooks as:
1) "...more or less persistent and organized effort on the part of relatively large number of people to bring about or resist change" (VanderZanden 1988).

2) "...organized attempts to change or preserve aspects of a social environment" (Johnson 1986).

3) "...are far more deliberate and long lasting form of collective behavior" (Macionis 1991).

4) "...enough discontent in any society to supply the grass roots support (Turner and Killian 1972).

5) "...a sustained interaction between a specific set of authorities and various spokespersons for a given challenge to these authorities" (Tilly 1984).

Central to the concept is the idea that people intervene in the process of social change (Walsh and Warland, 1985; Marwell and Ames, 1979, 1980). Olson (1965) explains that social movements can be distinguished from collective actions on the basis of their ideologies, or more particularly, by the goals their ideologies set. Social movements are far more deliberate and longer lasting forms of collective behavior (Macionis 1978). Collective behavior is also distinguished from social movements as being relatively spontaneous activity that does not conform to established norms (McAdam, McCarthy and Zald 1988, Turner and Killian 1987). Conceptually, collective behavior is described as both broad and transitory. For example, 'a fad may "catch on" and dissipate quickly, making it difficult to study. In
contrast, social movements generally involve longer-term and more organized activity that promotes or resists change in society (Harper 1987). Harper (1987) also distinguishes social movements from collective behavior on the basis of: 1) social movements show a higher degree of internal organization, 2) social movements are typically longer in duration, and 3) social movements are a deliberate attempt to reorganize society itself.

**Types of Social Movements**

Social movements can be classified in various ways (Aberle 1966, Cameron 1966, Blumer 1969). Blumer (1962) outlines general and specific movements. General movements are widespread, but have vaguely defined, inclusive goals (Table 1). Specific movements have more narrowly focused goals, ideologies, and organizations, that may arise from general movements. Blumer (1969) also distinguishes breadth and depth as variables that define social movements. Breadth refers to whether the focus is on society as a whole or a segment or subsection. Depth refers to the extent of change, ranging from superficial change to extensive transformations of individuals or society.

Harper (1987) distinguishes social movements into four categories, based on two dimensions. Harper defines movements by *fundamental* or *structural changes* in society. Harper defines *radical* social movements as those which desire to make fundamental changes in the system. *Reform* movements seek to change the system from within, such as modest changes in political processes. *Instrumental* move-
ments seek to change the structure of society as a whole, such as the goals of the civil rights movement. *Expressive* movements seek to change individuals and their behavior, such as the National Organization of Women.

Similarly, VanderZanden (1987) distinguishes four types of social movements. *Revolutionary* social movements are similar to Harper's definition of *radical*. These movements seek replacement of the existing value scheme, such as the black nationalist movement. VanderZanden (1987) also uses the term *reform*, but the definition is similar to Harper's *instrumental*. These movements pursue changes that will implement the existing value scheme more adequately, such as the civil rights movement. VanderZanden (1987) further breaks social movements into a category for *resistance* type movements, which are reactions to movements that want change in the current structure. Resistance movements seek to maintain the status quo. The fourth category identified by VanderZanden (1987) is the *expressive* movement, which attempts to change individuals from within themselves. This is similar to Harper's definition of *expressive* movements. Many religious movements can be categorized as expressive movements.

Freedman (1983) also distinguishes four categories of social movements. Again, similar to Harper, Freedman identifies *reformative* movements as those who wish to make limited social changes in the entire society. These movements can be progressive or reactionary, such as the pro-life and pro-choice movements. By identifying reactionary movements as reformative, Freedman's definition is similar to VanderZanden's *resistance* movement definition. Freedman goes further to say
that those movements that seek the basic transformation of the whole society are considered *revolutionary* movements. This definition coincides with Harper’s *radical* movements and VanderZanden’s *revolutionary* movements. These movements seek to change basic structures that define the daily living of individuals. Freedman identifies two types of movements that seek to change the individual. *Alternative* movements attempt limited change, such as to a specific attitude or behavior. *Redemptive* movements focus on individuals as well, but seek to change their lives radically. These two categories are similar to *expressive* movements outlined by Harper and VanderZanden insofar as they seek to foster change in the individual that will later reflect more fundamental change in the greater society.

Harper’s identification best distinguishes the four different types of social movements. However, Harper’s definition of expressive movements can be enhanced by Freedman’s definitions of alternative and redemptive movements. Harper identifies expressive movements that seek to change individuals and their behavior. Freedman further defines two types of movements by the way they change an individuals’ behavior. Alternative social movements pursue a limited amount or scope of change in certain individuals, such as Planned Parenthood, which encourages individuals of child bearing age to consciously plan birth practices. Redemptive movements focus on radical or comprehensive change in individuals, such as fundamental religious organizations that seek new members through conversion (Freedman 1983). Although redemptive movements focus on individuals, the goal is ultimately change on a larger societal scale (See Table 2.1).
Environmental organizations traditionally focus on changing behaviors or creating awareness of certain issues that affect the general population. While only a segment of the population may be members of the organization, the organization's goals are the betterment of the public good. The betterment of the public good extends benefits to more than the membership of the organization. The environmental movement would be defined by Blumer as a specific movements. Within this area, environmental groups generally resemble instrumental and groups as defined by Harper (1987) although a few would possess characteristics of radical or revolutionary groups (VanderZanden and Freedman). Environmental fundamentalists, represented by the more extreme elements within Greenpeace or the Animal Liberation Front would represent the radical/revolutionary end of the environmental movement. PETA (People for the Ethical Treatment of Animals) is an example of a reform group. Various organizations promoting recycling are instrumental in nature. Overall, most environmental groups seek to change the structure of society by changing individual behaviors, hence, the environmental movement in American society is largely instrumental. These groups seek to change the behavior of individuals that will, in turn, change the behavior of society.
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<tr>
<td><strong>General Movements</strong></td>
<td>(General, vaguely defined-counter culture movement of 1960's)</td>
<td><strong>Radical</strong></td>
<td>(Fundamental changes to system- movement against racism or sexism)</td>
<td><strong>Revolutionary</strong></td>
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<td><strong>Reform</strong></td>
<td>(Fundamental changes from within- political or educational reform)</td>
<td><strong>Instrumental</strong></td>
<td>(Seek change in structure of society- civil rights movement)</td>
<td><strong>Reform</strong></td>
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<td><strong>Specific Movements</strong></td>
<td>(Focused goals, ideologies, and organizations- opposition of nuclear power, save the whales)</td>
<td><strong>Expressive</strong></td>
<td>(Seek changes in individuals and behavior- religious movement, temperance union movement)</td>
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*Table 2.1*

*Types of Social Movements*
Social Movement Development

Why do social movements form and gain momentum? There are several theories for the formation of social movements. The categories discussed here include psychological, social-psychological, structural, and resource mobilization theories.

Psychological theories emphasize the irrational nature of social movement participation as well as rational calculative reasons why people become involved in social movements (Berk 1974, Oberschall 1973). Crowd psychology theory (LeBon 1896, 1960 edition, Hoffer 1951, McCormack 1951) assumes that humans are irrational. Social movements are the "...result of the breakdown of restraining structure which results in unregulated crowd behavior in which people are anonymous and suggestible" (Harper 1987). Ideal converts are those who feel inadequate and who attach themselves to social movements to enhance self-esteem and hope (Hoffer 1951). While there are some aspects of crowd psychology that may be true, it is not adequate to describe or explain much behavior beyond a narrow focus. In addition, crowd psychology theories have been criticized for their conservative biases (Oberschall 1973).

Oberschall (1973) and Berk (1974) suggest the opposite of crowd psychology, that humans are rational beings who form social movements in order to attempt collective problem solving. If one would assume that humans form social movements through self-determination, then the influence of ideologies and social influences are reduced (Gerlach and Hine 1970; McCarthy and Zald 1976;
Walsh 1978; Leahy and Mazur 1978; Tilly 1979). However, these theories assume that underlying states and problems are constant and "tell little about the varying social conditions that trigger movements of change" (Harper 1987).

Social psychological theories attempt to explain social movements by linking social conditions and psychological dispositions. Two such theories are relative deprivation and status strain. Some scholars have suggested that deprivation is the motivation for participation in social movements (Toch 1965, Fanon 1968). In such extreme cases, such as poverty, illness, or lack of safety, people participate in movements to better the situation where they live. The criticism of this theory is that few movements have been observed that address absolute deprivation.

There is also the concept of relative deprivation (Davies 1969, Gurr 1970). Relative deprivation is the psychological condition that exists when there is a significant gap between expected outcomes and actual outcomes (Harper 1987). Rather than actual deprivation, subjective feelings of deprivation by individuals prompt participation. People feel dissatisfied or deprived by comparison to others or by the difference between rising expectations and objective conditions (Pettigrew, 1964; Wood and Jackson, 1982). The perceived level of deprivation by people becomes the motivating factor for social movement participation (Wood and Jackson, 1982). Theorists have surmised that relative deprivation was a contributing cause for the Civil Rights movement of the 1960's. The standard of living was improving for both black and white Americans, but the gap between the two groups and the rising expectations of blacks relative to actual conditions
caused an increase in perceptions of deprivations. Due to discrimination, black Americans could not access the economic and social advantages available to other Americans. The lack of accessibility was one of the motivating factors for minorities to seek changes in policies, guidelines and laws for all Americans (Pettigrew, 1964; Geschwender, 1968; Gurr, 1970; VanderZanden, 1983).

The criticism of deprivation theory is if deprivation is a motivating factor, then why do social movements occur in some situations and not in others (de Tocqueville, 1955, original 1856)? For example, why did rebellions cause the French Revolution, but no rebellions occurred in Germany, where peasants were in worse condition (de Tocqueville, 1955)? While deprivation may explain some movements, it doesn't explain the motivations for all social movement participants (Jenkins and Perrow, 1977). Another criticism of deprivation theory is that it focuses on the setting in which movements happen rather than on the movement itself (McAdam, McCarthy and Zald, 1988).

Another type of social psychological theory is status strain. Lipset and Raab (1970) suggest that demographic, political, economic, and social change threaten the position of certain groups within society. This theory has been used to explain the attraction to movements that seek to protect the status quo. Change increases the status and influence of formerly subordinate groups, thus threatening established groups (Lipset and Raab 1970). The criticism of social status strain is that it primarily addresses right wing movements, such as the Ku Klux Klan or "survivalist" groups, and it is not clear how it applies to other social movements.
Studies have indicated that adherence to other movements is only weakly related to social status strain (Page and Clelland 1978, Harper and Leicht 1984, Simpson 1983).

Social psychological theories focus on individuals and their interaction within society and are therefore described as micro-level approaches. One macro-level social psychological approach is that of mass society theory. This approach was inspired by Weber's (1921) concern that "bureaucratization of social life would ultimately erode the quality and character of informal relations" (Coser 1970). From this position, several theorists (Simmel 1921, Wirth 1957, Kornhauser 1959) developed what is known as the mass society thesis, which argues that trends have produced an erosion of informal and traditional social relations. Kornhauser (1959) suggests that mass society people feel insignificant and are attracted to social movements as a form of social attachment. The attraction of participants to social movements is the expression of dissatisfaction of belonging to anonymous, impersonal groups. As individuals, they can not express dissatisfaction on their own, but they do so as a collective voice in a social movement.

Another macro-level approach to social movements is the structural strain theory or "value-added" theory (Smelser 1962). Value added theory recognizes the complexity of social movements by attempting to identify factors that foster or inhibit their development. Smelser outlines six conditions that foster development.

1) Structural conduciveness - Social movements arise from significant grievances within societal structure. Significant problems within
society lay the base for social movements, but other factors increase the probability of occurrence.

2) Structural strain - Strains within society contribute to social movements when perceived expectations are not met.

3) Growth and spread of an explanation - Social movements require clear statements of the problem, the causes and possible solutions. If people understand the problem they are more likely to express their own dissatisfaction in an organized way. If the problem is not well stated, unorganized expressions (i.e., random vandalism, rioting) can occur.

4) Precipitating factors - Conduciveness, strain, and general beliefs do not by themselves produce collective behavior. A specific event usually precipitates collective action.

5) Mobilization for action - Once the previous four determinants have been established, the only necessary condition is to bring the affected group into action. The mobilization of leaders at this point is very important. This is the beginning for either reform or revolution.

6) Lack of social control - The response of authorities will largely determine the outcome of any movement. Powerful repression can weaken or destroy social movements. Non-interference or weak response can increase the possibility of change (Smelser 1962).
Smelser's value-added theory is similar to Kornhauser's mass society theory insofar as both suggest that social movements are caused by strain (Klandermans, 1984). However, many scholars criticize Smelser's theory for being incomplete because it ignores the role of mass media in the success or failure of social movements (Oberschall 1973, Jenkins and Perrow 1977, McCarthy and Zald 1977). Others claim structural strain theory is more descriptive than explanatory (Harper 1987).

While both relative deprivation and status strain approaches seek to identify reasons why people are motivated to join social movements, resource mobilization theory focuses on the social movement organization and the availability of resources. Resource mobilization theory does not focus on the grievances of people per se. Instead it explains social movements through the changing availability of resources, organizations, and opportunities for organized collective action to gain momentum (Jenkins 1983). Extensions of interest groups organize to gain entry into the established structure of society (Burton 1984). Resource mobilization emphasizes both support and constraint of social phenomena (McCarthy and Zald 1977). Resource mobilization theory de-emphasizes the role of mass discontent by assuming discontent is relatively constant and that there is continual political realignment. Resource mobilization theory addresses the ability of interested participants to motivate resources within their organizations as well as to motivate and cultivate resources from sympathizers outside their group (Marx and Woods 1975, Snow et. al 1980, Klandermans 1984).
Resource mobilization theory is often viewed as a reaction to traditional social-psychological theories of social movements (Zurcher and Snow 1981). Resource mobilization theory emphasizes the importance of structural factors, such as availability of resources and the position of individuals in social networks, and stresses the rationality of participation in social movements (Klandermans 1984, Oberschall 1973, Gamson 1975, Marx and Woods 1975, McCarthy and Zald 1977, Zald and McCarthy 1979, Snow et al. 1980, Gamson et al. 1982). Participation is not a consequence of predisposing psychological traits, but..."as the result of rational decision processes whereby people weigh the costs and benefits of participation" (Klandermans 1984, p. 583). To resource mobilization theorists, participation results from weighing costs against benefits. The psychological reality is the individual's decision to participate in a social movement based on perceived costs and benefits (Klandermans 1984).

According to resource mobilization theory, social movements entail forming mobilization potential, forming and motivating recruitment networks, arousing motivation to participate, and removing barriers to participation. It is important to distinguish these processes because they not only require very different activities of social movement organizations, but they also require different theories of analysis. To create mobilization potentials, a social movement must win attitudinal support. The formation and activation of recruitment networks must increase the probability that people who are potentially mobilizable become targets of mobilization attempts. Significant to the success of any social movement is that the arousal of
motivation must favorably influence the motivation of the targeted people. The more motivated people become, the higher the barriers they can overcome (Klandermans and Oegema 1987). In removing barriers, a movement organization increases the probability that an even larger share of motivated people will eventually participate (Klandermans and Oegema 1987).

The criticism of resource mobilization theory is that it is very much tied to recent movements and may not explain past history. Resource mobilization also tends to explain more affluent social statuses than lower social/economic status participation, therefore creating a social class bias (Snow et. al 1980, Harper 1987). A criticism of resource mobilization is that it does not answer why people participate when they do not know if others will participate. Klandermans (1984) explains that "...although people do not know what others will do, they have expectations." Participants assess the probability of their success on expectations of others behavior (Klandermans 1984).

Despite these concerns, the resource mobilization theory approach was used in this research. Mobilizing resources within and outside the group for the attainment of goals is a significant part of the environmental movement and particularly local environmental groups.

Volunteer Organizations and Social Movements

In a complex political economy, where huge organizational entities are the prime movers, individuals can achieve objectives by pooling their resources in
organizations that they would be unable to produce through their individual efforts. However, group members must trade personal control over their resources for the "multiplier effect" of collective action (Coleman, 1973). For many, the benefits gained from collective action outweigh the loss in personal autonomy (Mitchell, 1979; Marullo, 1988). This problem applies especially to groups that cannot compensate participants for their involvement in volunteer groups. In contrast to firms and government agencies that rely on the market or taxing powers, collective actions by social movements and volunteer associations depend on resource inputs from a mass support base (Knoke and Prensky, 1984). Most social movement organizations acquire the bulk of their resources from a critical mass of members or sympathetic "conscience constituents" (McCarthy and Zald, 1977). Acquisition of voluntary resources are essential to the collective action organization of all types.

Groups, organizations, and movements simply do not "happen". People are the organized bodies who function as the group or interest organization. Participation in these groups has been examined from many aspects. McCarthy and Zald (1977) define "organized interest" and "social movement organization" as identifiable organized bodies representing the interests of a group. McCarthy and Zald further identify "social movement industry" as a collection of similar social movement organizations. Truman (1971) defines "interest group" as "any group that, on the basis of one or more shared attitudes, makes certain claims upon other
groups in society for the establishment, maintenance, or enhancement of forms of behavior that are implied by the shared attitudes.

Environmental concern organizations highlight the acquisition of resources to further their cause and achieve their goals. Once it has acquired control over such resources, an organization may allocate them to three basic types of collective actions or goals: 1) direct material services to its members; 2) normative legitimation through public information and public relations programs; and 3) political efforts to influence public-policy decisions (Knoke, 1985, 1986). These activities can serve as incentives or inducements to members and potential members to continue providing the organization with resources in order to undertake collective actions. The relative importance of incentives for member involvement in volunteer groups has been debated for more than two decades. Members vary enormously in their preferences for and responses to a diversity of incentives offered by collective-action organizations. Members' motivations range from personal, help with job searches, to socializing, to changing legal statutes that affect the lives of persons not belonging to the organization. Adherence to equity norms, standards of fairness, and altruism may all play some part in individual decisions to become involved in a collective-action association (Knoke 1985, 1986). The evidence suggests that collective-action organizations' members are motivated to become involved by their interest in a variety of incentives (Knoke 1985, 1986).

Although resource mobilization theory emphasizes that social movement organizations are largely dependent upon volunteers, not all volunteer groups can
be defined as social movement organizations. Thousands of small localized volunteer groups have developed through the period known as the environmental movement. However, these localized groups do not necessarily identify themselves as directly associated with any kind of environmental movement.

Social movements may spawn volunteer organizations as the movement matures, and initially these volunteer groups may be very similar to the social movement organization. As the movement matures, the volunteer groups become dispersed and diffused. There may be a complete disconnection from the original social movement. The volunteer group may be sympathetic to issues and concerns of the movement, but the volunteer group is focused on issues and concerns with local relevance.

There are four differences between social movement organizations and local volunteer groups that may be conditioned by the age of the movement and the relative attachment by the volunteer group.

First, local volunteer groups tend to operate independently or in a quasi-autonomous fashion from state and national organizations. For example, volunteer groups tend to have an elected leadership, but may not associate with national or regional affiliations. Social movement organizations tend to have multi-levels that include national, state, and local hierarchies included in the internal structure.

Second, social movement organizations tend to have clearly defined platforms of an ideological or political nature. For example, animal rights groups, such as People for the Ethical Treatment of Animals (PETA), seek to rescind all
uses for animals and animal products in the interest of animals who can not "speak for themselves". As another example, the National Parks and Conservation Association's agenda is to lobby for the preservation of park lands in the interest of all U.S. citizens. In contrast, volunteer groups are more concerned with maintenance of behavior patterns and service delivery. Local metropolitan park volunteers may assist with clean-up, educational programs and other on-going park activities.

While volunteer environmental groups tend to possess characteristics of expressive social movements, they also possess traits of instrumental groups. Participants may initially join the organizations because of the ideology or mission of the organizations, but there are also personal or instrumental benefits gained from participation.

Finally, social movements tend to utilize mass media and professional organization tactics. The Audubon Society utilizes large scale mailing to convey messages to members, such as a national meeting. Social movements recruit on a broad basis, such as through mailings, and target large segments of the society. Recruitment for social movement organizations is related to the communication techniques applied. In contrast, local volunteer groups more likely rely on interpersonal communication and informal word of mouth, although some will also employ newsletters and telemarketing schemes for promotional purposes. Recruitment for volunteer groups is on an interpersonal level, with members recruiting
their friends. With localized interest, recruitment can be personalized to the needs and desires of the local populations.

There are also similarities that between social movement organizations and local volunteer groups. Local volunteer groups can be spin-offs from social movements and therefore, maintain similar ideologies or at the very least, residual sympathy (Dennis and Zube 1987). Techniques for recruiting and communicating may be passed on to local volunteer organizations by larger social movement organizations. As the volunteer group matures, however, differences may become more distinct. One could argue that local, autonomous volunteer groups with an environmental focus is one indicator of the maturation of the environmental movement itself. In addition, volunteer groups with specific interests can be deemed as "recruiting grounds" for future social movement organizations or renewal of older movements. For example, recruiting grounds for the renewed interest in recycling has been previously established groups, such as park volunteers, youth organizations, and other "green groups".

**Commitment to Volunteer Organizations**

We have seen how social movement evolve and how volunteer groups and social movements are different. In this section, we will review the concept of commitment and the relevance to group participation.

Parsons (1962) takes a functionalist view of commitment with the process of "institutionalization". Parsons' concept of "institutionalization" concerns the
"integration of actors in a relevant interactive system of roles with shared normative pattern of values" (Parsons and Shils 1962: 20). Parsons views commitment as the individual's connection to the social system.

Kanter (1968) theorizes that commitment arises at the "intersection of organizational requisites and personal experience". Kanter (1972; p. 66) refers to commitment as the

"...willingness of people to what will help maintain the group because it provides what they need. In sociological terms, commitment means the attachment of the self to requirements of social relations that are seen as self-expressive."

Kanter further defines commitment as the process by which individual interests become linked to socially organized patterns of behaviors. These behaviors fulfill the interests of the individual and carry out social functions of behavior. Parson's concept of institutionalization is the integration of actor's expectations in a social system of roles that have a shared normative pattern of values (Parsons and Shils 1962).

Social movements require commitment on the part of participants to some degree. Commitment has been used in past literature addressing organizations or groups and their functions. The primary issue for groups or organizations is how to arrange the work that the group must do to survive and in turn, satisfy and involve the members over a long period of time (Kanter 1972). There are organi-
izational problems, even within utopian communities, that can be broken down into several categories:

1) Getting the work done, but without coercion;
2) Ensuring that decisions are made, but to everyone's satisfaction;
3) Building close, fulfilling relationships, but without exclusiveness;
4) Choosing and socializing new members;
5) Including a degree of autonomy, individual uniqueness, and even deviance from group norms; and
6) Ensuring agreement and shared perceptions around community functioning and values (Kanter 1972).

These issues can be summarized as one of commitment. The commitment problems of utopian communities resemble those of secret societies, as described by Georg Simmel: "The secret society claims the whole individual to a greater extent, connects its members in more of their totality, and mutually obligates them more closely than does open society of identical content" (Wolf 1964; p. 360-361). In order to make one's work really meaningful, the personnel manager must supplement one's commitment to the occupation with some degree of commitment to the organization (Ritzer and Trice 1969).

Kanter (1972) outlines commitment as "... a consideration at the intersection between the organizational requisites of groups and the personal orientations and preferences of their members. These social systems are organizing to meet the systemic 'needs', as well as responding to situations." While the social system as a
whole is making specific demands for participation, group interaction, and control, the members in it are assessing their participation (Kanter 1968). Members continually "decide whether to remain or leave, invest more or less of themselves, obeying or sabotaging basic principles, and concentrating varying degrees of their emotional lives in the group" (Kanter 1972). An example of this is environmental groups that require yearly membership dues. Members must decide whether or not to renew membership and how much to participate in the organization's activities, such as Sierra Club or Nature Conservancy. Commitment, therefore, refers to the willingness of people to do what will maintain the group because it, in turn, provides what they need. Commitment means the attachment of the self to the requirements of social relations that are seen as self-expressive (Buchanan 1985). When people are committed, what they want to do is the same as what they need to do and thus give to the group what it needs to maintain itself (Kanter 1972). In order to make work environments meaningful, the personnel manager must supplement commitment to the job with some degree of commitment to the organization (Ritzer and Trice 1969).

Researchers have outlined three components that are consistent in commitment literature. These three components are focused behavior for the attainment of goals, the concept of side-bets, and attachment to the goals and values of a role, activity, organization, or resource.
Focused Behavior

The first component of commitment is focused behavior for the attainment of goals. Research supports the idea that a focused line of action over a period of time represents a form of commitment (Selnick 1949, Becker and Carper 1960, Becker 1960, Buchanan 1986). Following closely to the idea of the focused line of action is the idea that alternative behaviors are rejected. The consistent line action focuses the behavior and alternative behaviors are rejected. Sacrifices are made for the committed behavior (Becker and Carper 1956, Becker 1960). For this study, the consistent line of behavior would be continued participation in an environmental group. Constraints that operate against changing behavior depends on the intensity of factors that obligate the individual to that line of action (Stebbins 1967). A person becomes increasingly committed both as more of one's own internal satisfaction becomes dependent on the group and the chance to make other choices or options decline (Becker 1960, Kanter 1972). Goffman (1961) states commitment consists of conformity to a set of conditions, continuation of behavior, and the individual being locked into that position by committing to the promises and making sacrifices because of those commitments.

Side-Bets

The second component of commitment is the "side-bet". When a value (i.e. reward, benefit, etc.) is established and is at stake for maintaining a behavior, this is a "side-bet" as defined by Becker (1960). The individual "bets" the benefits of
participating in one activity will be better than participation in another activity. Becker (1960) suggested that individual’s invests in organizations or occupations - place side-bets - by staking something they value in it. Thus commitment is primarily a matter of accrued investments (Alutto, Hrebinak, and Alonso 1973). The particular behavior has consequences for other interests or activities not necessarily related to it (Becker 1960). The participant may not be entirely aware that the continuance of a particular behavior can lead to multiple side-bets (Buchanan 1986). These side-bets can include anything that is considered valuable to the individual. For example, being identified with a particular environmental organization may assist an individual with other life pursuits, such as a politician being identified as a Ducks Unlimited member because the membership may garner votes in the local area. Rewards for continuing a behavior can be considered a side-bet. Rewards are determined by assessing the benefits over the costs. The analysis of benefits over costs is a psychological process that the individual processes to assess the investments and consequences for discontinuing the activity (Abramson et al. 1958, Becker 1960, Buchanan 1986). Commitment is a process that yields a positive net balance of rewards over costs (Becker 1960, Vroom 1964, Katz and Kahn 1966, Schoerr and Greeley 1974). The positive net balance of rewards over costs is interpreted to be the positive aspects of the side-bets. The costs are the sacrifices that are made due to a consistent line of action. Over a period of time, the consistent line of activity will influence the amount and strength of side-bets. A person may have more side-bets accrued from participa-
tion in an organization than a younger person who may have recently become a
member. There should be a strong positive relationship between length of time in
an organization and the number of side-bets accrued in an employing system.

Affective Attachment

The third component of commitment is the attachment to the goals and values of
a role, activity, organization, or resource (Buchanan 1986). A person exhibits
attachment by performing the actions, abiding by the norms, and contributing to
the activity or organization. Kanter labels three levels of affective attachment
along a continuum. These levels are continuance, cohesion, and control. Continu­
ance is the lowest level of affective attachment which is continuing a behavior
because the cost of terminating the behavior is more than the cost of maintaining
the behavior. A business organization may concentrate on solving problems of
continuance rather than control. Cohesion is the second level and refers to a
commitment to group solidarity because of emotional attachment. An interest
group may be solely concerned about cohesion. The highest level of affective
attachment is control. This level is characterized by acceptance and dedication to
the values, norms, and goals of the activity or its participants. A religious organi­
zation may stress control. The activity or organization becomes the central life
interest because of the importance in that person's life. If a person can see the
rewards of investing and furthering the goals and values of an organization or
activity, the commitment to that organization or activity, is increased. The commit­
ment then leads to normative ideas about how a participant should behave. The attachment to the values, norms and goals of an activity or organization is commitment by control. A person is committed to a group or to a relationship when one is fully invested in it, so that maintaining one's own actions will support the social order. A committed person is loyal and involved, with a sense of belonging and the individual is an extension of the group (Kanter 1972).

**Instrumental Benefits versus Expressive Benefits**

Gordon and Babchuk (1959) and Jacoby and Babchuk (1963) outline two types of volunteer groups. One type is the instrumental volunteer group which exists in order to pursue goals and objectives that lie outside the organization. Instrumental groups serve as social influence organizations for the creation and maintenance of a social condition. Examples of instrumental organizations include many in the environmental arena, such as those who advocate organic farming for all production agriculture, animal rights, and mandatory recycling programs.

The other type of volunteer organization is an expressive organization. Expressive organization members participate in activities that provide satisfaction for their immediate needs. The benefits attained by this organization are enjoyed solely by members of that organization (Booth et al. 1968; Godwin and Mitchell 1982). Examples of expressive organizations include sporting or hobby clubs, senior citizens groups, or specific fraternal organizations.
Some organizations have both expressive and instrumental goals, "such as the American Legion which advances certain rights of the members, while at the same time providing social facilities" (Booth et al. 1968). Although an organization may incorporate characteristics of both types, one tends to be predominant (Gordon and Babchuk 1963). Also, people may join the organization for their own expressive purposes, yet the organization acts as a instrumental organization (Gordon and Babchuk 1963; Booth and Babchuk 1969).

Instrumental and expressive can also be applied to the benefits and motivations of an individual's participation in volunteer organizations. Participation may further the goals of the organization which benefit those who are not members, but the participant may also receive expressive benefits, such as community recognition for the same actions (Booth et al. 1968; Booth and Babchuk 1969). Knoke and Wright-Iske (1981) identify benefit items such as socializing, status, and group identification as expressive benefits from participation.

**Environmental Concern as Instrumental Motivation**

Recent concern for environmental issues, such as air quality standards, recycling, species preservation, and water quality and quantity, have again renewed active participation in active groups. Measures to ascertain environmental concern have been attempted (Hendee et al. 1969; Anderson and Cunningham 1972; Constanini and Hanf 1972; Tognacci et al. 1972; Kinnear and Taylor 1973; Weigel and Weigel 1978). Weigel and Weigel (1978) further strengthened the theory that
membership in environmental organizations and environmental concern are positively related.

Like outdoor recreation, environmental concern has been associated with social status (Buttel and Flinn 1978; VanLiere and Dunlap 1980; Lowe and Pinhey 1982; Mohai 1985). Buttel and Flinn (1978) found a connection between higher education and environmental concern. Mohai (1985) contends that activists are more likely to come from the upper middle class than other social classes.

Dennis and Zube (1988) state that while most research "has addressed behaviors in voluntary association membership and participation in outdoor recreation as independent phenomena, few have attempted to link activity in voluntary associations and recreation behavior."

Dunlap and Heffermann (1975) proposed the hypothesis that involvement in outdoor recreation activities contribute to greater concern with the natural environment. Dunlap and Hefferman found that participation in certain activities was associated with environmental concern. Participants of consumptive activities (i.e., hunting, fishing, and other wildflower collectors) tended to have stronger association with environmental concerns. However, Pinhey and Grimes (1979) and Geisler et al. (1977) contend that recreation activity is a poor indicator. They assert that non-consumptive recreationists (i.e., cross-country skiing, hiking, photographers) are no more environmentally concerned than consumptive recreationists (Pinhey and Grimes 1979). They also contend that individual
characteristics are more important factors influencing environmental concern. These findings are consistent with Geisler et al. (1977).

**Outdoor Recreation**

Understanding leisure behavior has been the focus of intense research in the last thirty years. The definition of leisure varies among researchers, but they agree that leisure is an essential part of our social world. Attempts to gather information about outdoor recreation activities have been numerous since the Outdoor Recreation Resources Review Commission reports in the early 1960s. However, these studies have explained only a portion of the variance in outdoor recreation participation (Burdge et al. 1981).

Outdoor recreation activities are defined as virtually all those constructive leisure activities that occur in open space areas (Knudson 1980). Outdoor recreation activities can be active, passive, consumptive, non-consumptive, seasonal, organized, individual, team activities, or a host of other descriptors. The only common denominator is the fact that people engage in these activities in open space areas.

Researchers have theorized several predictive variables to explain participation in outdoor recreation. Well-educated, higher income citizens participate more than poor, no matter what the context or institutional setting (Salisbury 1975, Lane 1959, Milbrath 1965, Defee et al. 1974, Harry et al. 1969, Stern and Noe 1973, Kelbert 1980, Dennis and Zube 1987). Hendee et al. (1971) reported that youn-
ger, better educated persons tended to participate in more outdoor recreation activities. These people also tend to have non-manual occupations and a higher than average income. Mercer (1976) concluded that the place of residence influences the kinds of recreational environments and hence activities that are potentially available. For example, winter activities, such as alpine skiing and snowshoeing, are more popular in areas that can support these activities consistently.

Dennis and Zube (1988) further speculate that there is a link between outdoor recreation participation and voluntary membership in organizations. While most social scientists address voluntary participation and outdoor recreation behavior as separate phenomenon, a few researchers have theorized a link between the activity of voluntary behavior and recreation behavior. Most studies have concentrated on the association affiliations of outdoor recreation and concern for the environment (Dennis and Zube 1988). A logical observation is that the benefits sought by organizations are recreational in nature, and therefore, prompt an outdoor recreation and voluntary association participation relationship. For example, people joining the Sierra Club may join because of the organization's efforts to protect the environment, or they may join for the magazine, outings, and fellowship, or they may join for both.

Specific to outdoor recreation are environmental groups. Environmental groups are like other voluntary associations because they draw participants from higher educated, higher socio-economic backgrounds (Buttel and Flinn 1978, Van
Liere 1980, Lowe and Pinhey 1982). Mohai (1985) further states that activists are disproportionately drawn from the upper-middle class, yet the concerns of these organizations cut across all socio-economic categories (p. 821). Dennis and Zube (1988) concluded that group members appear to view their association membership as a means to obtain public goods that enhance environmental quality and opportunities for outdoor recreation. Their study links leisure time and intellectual orientation with voluntary association membership, and perceived leisure time with organizational activism.

The importance of outdoor recreation activities in one’s life acts as an intervening variable for expressive behavior and instrumental benefits. The importance of outdoor recreation activities is theorized to influence general environmental concern because concern with a specific outdoor recreation area or activity is visibly impacted by the status of the environment. Outdoor recreation influences expressive benefits because these activities serve as the means to satisfying individually-defined benefits.

**Expressive Benefits**

Jacoby and Babchuk (1963) and Booth et al. (1969) outlined two types of organizations, expressive and instrumental, but these definitions can also be applied to desired benefits and outcomes. While environmental concern has been theorized to be the expression of instrumental benefits (working towards the betterment of a public good), there are also expressive benefits sought by those
volunteer participants. The expressive benefits sought are the personal benefits attained by participation in the organization. Knoke and Wright-Iske (1981) indicated that socializing, status, and group identification are expressive benefits of participation. Other types of personal benefits include physical or mental health, expression of feelings, personal achievement, and recognition from the community. Expressive benefits are those attained solely by the participant and does not affect the organization's mission or goals. These benefits are sought by participation in group activities, even though the activities of the organization may be considered instrumental in nature.

**Proposed Model of Study**

The proposed model of study includes socio-economic and demographic variables, the importance of outdoor recreation activities, environmental concern, and commitment. Commitment is defined by three components: focused behavior, side-bets, and affective attachment. What is the source of commitment? Figure 2.1 presents the total model. There are two paths to commitment. One path is the expressive characteristics of groups that work for public good. The other path is the instrumental benefits derived from participation.

**Hypotheses 1, 2, 3 and 4 - Components of Commitment**

The first hypotheses concerns the interrelationship of the three components of commitment. Commitment has been theorized to be composed of three sub-
parts. Affective attachment to the goals and mission of the organization may
influence an individual's choice to participate (Kanter 1968, 1972; Becker 1960;
Buchanan 1986; Goffman 1961; Alutto, Hrebinak, and Alonso 1973; Vroom 1964;
Katz and Kahn 1966; Schoerr and Greeley 1974). Subsequently, a side-bet may be
the social role of being identified as a member of an environmental organization.
Side-bets invested to continue behavior will influence the amount of time (focused
behavior) one spends in activities with the volunteer organization. The compo­
nents of commitment are highly intercorrelated because the components overlap in
influence, yet each is separate and distinct.

H_1: There will be separate and distinct components to measure
commitment - focused behavior, side-bets, and affective attachment.

H_2: Focused behavior and side bets will be positively related.

H_3: Side-bets and affective attachment will be positively related.

H_4: Affective attachment and focused behavior will be positively
related.

Hypothesis 5 - Environmental Concern and Commitment

Dennis and Zube (1987) theorize that group members view their member­
ship in environmental and outdoor recreation organizations as a vehicle to enhance
environmental quality and outdoor recreation opportunities. "Members' sincere
concern for the environment indicates a value orientation of sufficient strength to
warrant investment in the collective activities of conservation organizations"
(Dennis and Zube 1987: p. 242). Environmental concern will also influence the level of commitment exhibited towards the volunteer organization. Environmental concern may influence an individual’s choice of the volunteer group. An individual may identify intellectually or emotionally with the purpose, goals, objectives, or mission of the environmental organization and consciously choose to participate in the activities. Investment in side-bets, such as status associated with the environmental group, is theorized to increase level of commitment. Focused behavior, such as choosing the organization’s activities over other activity opportunities, further indicates commitment to the environmental organization.

H₅: There will be a significant positive relationship between environmental concern and commitment to the organization.

**Hypothesis 6 - Expressive Benefits and Commitment**

The literature has noted many reasons why people participate in organizations. Altruistic behavior exhibited by participation does not account for all behavior in instrumental organizations. Expressive benefits are also gained by participation (Booth and Babchuk 1969). Expressive benefits may also contribute to commitment to the organization. While the organization’s goals are instrumental in nature, the expressive benefits garnered from participation may be a significant contributor to continued participation in the organization.

H₆: There is a significant positive relationship between expressive benefits and commitment to the organization.
Hypothesis 7 - Outdoor Recreation and Environmental Concern

While the literature has noted that participation in specific outdoor recreation activities may not be a good indicator of environmental concern (Pinhey and Grimes 1979; Geisler 1977), the overall importance of outdoor recreation activities in one’s life can influence environmental concern. Gale (1972) maintained that strong personal attachment to outdoor recreation activity can lead to commitment to protect the area that directly contributes to the enjoyment of the activity. Dunlap and Heffernan (1975) suggest that increased participation in outdoor recreation is likely to indicate a high level of environmental concern, such as protecting a recreation site. Again, resource mobilization theory would contend that if people utilize monetary resources for outdoor recreation, these same people would utilize monetary resources and social networks to protect the environment where the activity takes place. The protection of that particular area transfers to a general environmental concern.

H7: There is a significant positive correlation between the importance of outdoor recreation activities and environmental concern.

Hypothesis 8 - Outdoor Recreation and Expressive Benefits

A complete index of desired outcomes of outdoor recreation is not available because each person may have a slightly different desired result (Burch 1964; Neulinger and Breit 1969; Pierce 1980; Ewart 1985). Desired outcomes of participation may include physical benefits, identification as an activity enthusiast, or
mental stimulation, among others. Participation in outdoor recreation activities may influence desired benefits from volunteer organizations as well. Outdoor recreation participation is influenced by previous experience (Schreyer et al. 1984), such as exposure and participation during childhood, and subsequently, current participation in outdoor recreation can influence further activity choices, such as desired outcomes (Schreyer et al. 1984). Activity choices could include participation in volunteer organization that have a recreation function. The desired outcomes of participation in a volunteer organization can be termed expressive benefits. These expressive benefits may be influenced by the importance of outdoor recreation activities in one’s life, such as a person may desire to stay physically fit and will assist a trailblazer group to maintain a hiking trail because of the physical fitness benefit.

\[ H_8: \text{There is a significant positive relationship between importance of outdoor recreation and expressive benefits.} \]

**Hypotheses 9 through 14 - Individual Characteristics, Environmental Concern and Outdoor Recreation**

**Age**

Several studies on volunteer participation indicate age as an influencing variable. Cohen-Mansfield (1989) found a positive association of age and participation in neighborhood organizations in large urban areas. Earlier studies indicate a positive correlation between membership and participation and age (Bell and
As age increases, in theory, individuals acquire more resources, such as discretionary time and money. As costs decrease with fewer living expenses, the increased amount of discretionary time allows the individual to seek experiences of self-fulfillment that can possibly be garnered from volunteer activities. Age as an influencing variable in volunteer behavior is similar to resource mobilization theory which emphasizes the availability of resources and social networks that movements require.

Age is also a determining factor in outdoor recreation participation (Sessoms 1963). As age increases and the demands of the life cycle change, more discretionary time is available to participate in recreation activities (Kelly 1978; Bultena et al. 1978). As the life cycle changes, the function of recreation activities may also change, subsequently the importance of recreation activities may increase. The importance of recreation activities can be a function of the volunteer group. If outdoor recreation activities are an important function of the volunteer group, then the importance of those activities in one's life may rate very high.

Gender

Gender has also been linked to the influence of participation in volunteer organizations. Booth and Babchuk (1969) theorized that men participated more than women in voluntary organizations. This theory has been challenged since then. Another theory put forth by Booth and Babchuk indicated that men and women participated in different types of volunteer organizations. They theorized
that men participated more in instrumental organizations and women participated more in expressive organizations. Curry (1980) challenged this contention with findings that women have higher levels of participation when controlling for education. Gustafson et al. (1979) indicated that when controlling for occupation, women show higher levels of membership and participation. However, Edwards et al. (1984) found that women had patterns similar to male participation patterns. Dempsey (1988) noted that employed women did not participate in volunteer groups as much as women not employed in the paid labor force. However, Goreham (1987) noted that gender was not related to the total number of voluntary association memberships. Women indicated their motivations for participation included altruism (i.e. instrumental) and self actualization (i.e. expressive) (Jenner 1982).

Education

Education has been positively associated with participation in volunteer organizations (Hyman and Wright 1971; Tomeh 1973; McPherson and Lockwood 1980; Edwards and White 1980; Auslander and Litwin 1988; Dennis and Zube 1987; Prestby 1989). Persons with higher levels of education were more likely to participate in volunteer organizations than those with less education (Prestby 1989). Hyman and Wright (1971) and McPherson and Lockwood (1980) independently concluded that education was the most influential predictor to participation in volunteer organizations. Education is also positively associated with participa-
tion in outdoor recreation (Sessoms 1963; Hendee et al. 1971). Outdoor recreation enthusiasts tend to have higher education levels (Outdoor Recreation Resources Review Commission 1962; Driver and Field 1976; Bultena and Field 1978). Many environmental groups use outdoor recreation activities as a function of the organization, such as the Sierra Club, Audubon Society, American Hiking Society, and National Wildlife Federation. The importance of outdoor recreation activities in one's life may directly influence participation in the organization.

Socio-economic Status

Social science research has a long history that associates group membership and social status (Lane 1959; Milbrath 1965; Defee et al. 1974; Harry et al. 1969, 1971; Stern and Noe 1973; Kelbert 1980). Highly educated, high income citizens participate more than lower income status persons in all forms of active participation (Lane 1959; Milbrath 1965; Salisbury 1975). Defee et al. (1974) concluded that participation in organizations was disproportional to the upper occupational categories. Harry et al. (1969) earlier noted that conservation movement participants came from upper-middle class occupations. Stern and Noe (1973:474) note that "...almost every study dealing with affiliation and participation in voluntary associations also indicates a direct and positive correlation with social class."

While social class has been used to indicate participation behavior in volunteer organizations, it has also been used as a predictive variable for participation in outdoor recreation activities (Clarke 1956; ORRRC 1961,1962; Burch and Wenger
1967; Hendee et al. 1968; Burdge 1969; Bishop and Ikeda 1970; Bultena and Field 1978; Dennis and Zube 1988). Hendee et al. (1971b) found that outdoor recreation participants tend to be younger, highly educated and more likely to have higher incomes related to non-manual occupations.

As research has indicated, socio-economic variables influence outdoor recreation activities (Kelly 1983), environmental concern (Dunlap and Hefferman 1975; Geisler et al. 1977; Pinhey and Grimes 1979) and theoretically, commitment to an organization. In theory, if demographic factors, such as age and education, and socio-economic factors, such as occupation and income, influence group participation, outdoor recreation, and environmental concern, they will also influence the level of commitment to an environmental organization. Resource mobilization theory can be applied to outdoor recreation participation because the same basic principles apply. Participants in outdoor recreation activities tend to be of higher income and higher status occupations. Resource mobilization theory would contend that the higher income, education, and socio-economic status provides the opportunity for utilization of those resources to participate in outdoor recreation activities, such as travel to a certain area or investment in equipment.

\[ H_9: \text{There is a significant positive relationship between demographic variables (age and gender) and the importance of outdoor recreation.} \]

\[ H_{9a}: \text{There is a significant relationship between gender and the importance of outdoor recreation.} \]
H_{0B}: There is a significant positive relationship between age and the importance of outdoor recreation.

H_{10}: There is a significant positive relationship between socio-economic variables (education, occupation and income) and the importance of outdoor recreation.

H_{10A}: There is a significant positive relationship between education and the importance of outdoor recreation.

H_{10B}: There is a significant positive relationship between income and the importance of outdoor recreation.

H_{10C}: There is a significant positive relationship between occupation and the importance of outdoor recreation.

H_{11}: There is a significant positive relationship between demographic variables and environmental concern.

H_{11A}: There is a significant relationship between gender and environmental concern.

H_{11B}: There is a significant positive relationship between age and environmental concern.

H_{12}: There is a significant positive relationship between socio-economic variables and environmental concern.

H_{12A}: There is a significant positive relationship between education and environmental concern.
$H_{12b}$: There is a significant positive relationship between income and environmental concern.

$H_{12c}$: There is a significant positive relationship between occupation and environmental concern.

$H_{13}$: There is a significant positive relationship between demographic variables and expressive benefits.

$H_{13a}$: There is a significant relationship between gender and expressive benefits.

$H_{13b}$: There is a significant positive relationship between age and expressive benefits.

$H_{14}$: There is a significant positive relationship between socio-economic variables and expressive benefits.

$H_{14a}$: There is a significant positive relationship between education and expressive benefits.

$H_{14b}$: There is a significant positive relationship between income and expressive benefits.

$H_{14c}$: There is a significant positive relationship between occupation and expressive benefits.
Significant positive relationships between intervening variables and the dependent variable indicate that some degree of the variance of commitment can be explained by the intervening variables. Those variables that have significant positive relationships with the intervening variables will also influence the explanation of the dependent variable. Therefore, the following hypotheses will be tested:

H₁₅: Demographic variables will explain a significant amount of the variance of commitment.

H₁₅ₐ: There is a significant relationship between gender and commitment.

H₱₅₉: There is a significant positive relationship between age and commitment.

H₁₆: Socio-economic variables will explain a significant amount of the variance of commitment.

H₁₆ₐ: There is a significant positive relationship between education and commitment.

H₁₆₉: There is a significant positive relationship between income and commitment.

H₁₆₉: There is a significant positive relationship between occupation and commitment.
Figure 2.1 Theoretical Model Predicting Level of Commitment
Chapter III

Methodology

Introduction

The purpose of this study is to develop a model of commitment by identifying components of commitment and preconditions related to participatory behavior in volunteer organizations related to natural resources. The three components of commitment are theorized to be affective attachment, side-bets, and focused behavior.

This chapter is organized into four sections. Identification of the population, including a description of the organizations and the rationale for selection is included. Data collection is then discussed addressing sampling procedures, follow-up mailings, and return rates. Discussion of the instrument includes scale construction, operationalization of variables, and instrument reliability and validity, and scale reliability. Finally, data analysis techniques are described.

Population

The population of this study included three groups of volunteers related to the environment and natural resources in Ohio. Two of the organizations were park districts of metropolitan areas: the Metropolitan Park District of Columbus
and Franklin County and the Metropolitan Park District of Dayton and Montgomery County. The third group was the Buckeye Trail Association that consists of volunteer located throughout the state. The primary function of the Buckeye Trail Association is to maintain the Buckeye Trail throughout Ohio.

These three groups would be called instrumental according to the definition provided by Jacoby and Babchuck (1963) because the groups are organized to generate benefits beyond the membership of the group. The groups may meet needs of the volunteers, but the focus of the activities and goals goes beyond each organization's membership (Gordon and Babchuck 1959).

The Metropolitan Park District of Columbus and Franklin County was created in 1945 under Chapter 1545 of the Ohio Revised Code. The main focus of the park district is the conservation and enjoyment of natural areas such as forests, fields, streams, and wetlands and to provide opportunities for recreation and appreciation of these areas. Currently (Spring 1991), the number of volunteers in the park district is 401. These volunteers perform such tasks as naturalists in parks, operating an historical farm, and maintenance of thirty acres of gardens among other duties.

The Metropolitan Park District of Dayton and Montgomery County was established in 1963 under Chapter 1545 of the Ohio Revised Code. The purpose is similar to the Columbus and Franklin County parks system: to preserve land for recreation, education and the protection of natural resources. Currently (Spring 1991) the park district has 520 volunteers to assist its programs. The programs
cover a range of activities including seven reserves and an arboretum. Similar to the Columbus and Franklin County park district, these volunteers provide naturalist interpretations, planting and maintaining the arboretum and historical farm, as well as staffing a speakers bureau.

The Buckeye Trail Association was the third group in the study. This group was chosen because of the focused interest of this volunteer group. The purpose and primary activity of this group is to promote and maintain the Buckeye Trail throughout Ohio. The Buckeye Trail is continuous trail loop around the state of Ohio. The Buckeye Trail can be used for hiking, horseback riding, cycling in some areas, snowmobiling and cross-country skiing. The organization was started in 1959 and currently has seventy-seven members located in various parts of Ohio. In addition to maintaining the Buckeye Trail, the association promotes the trail’s use, actively recruits other volunteers, raises funds, and lobbies for more trails.

These three groups attract a diverse population as volunteer members. Where each group has specific activities, goals and objectives, the groups are also similar because they promote the proper use of natural resources. The differences between these groups provided the opportunity to investigate commitment among volunteer organizations with common interests.

Data Collection

Data was collected through mailed surveys following procedures outlined by Dillman (1978). The Columbus and Franklin County park district had 401 individ-
uals listed as volunteers. A random sample of 194 was selected based on procedures established by Warmbrod (1965). An agreement was reached with the park district office to send the questionnaires because the volunteer list was to be kept confidential. The researcher knew only the code numbers which were checked off as surveys were returned. The park district physically addressed the envelopes and mailed the instrument. When reminder cards were due to be sent, the park district again mailed the cards to their volunteers.

The Dayton and Montgomery park district had a volunteer list of 520 people obtained from the director of the organization. A random sample of 218 names were selected from this list (Warmbrod 1965).

The Buckeye Trail Association consists of 77 volunteers. No names could be released to researchers, so prepared instruments were sent to the president of the organization who in turn mailed the instruments to the volunteers. The researchers agreed to pay for the mailing if the volunteers would complete the survey. A sample was not drawn from this group because the population was so small. A census of the population, as recommended by Warmbrod (1965), was taken.

A total population of 998 possible volunteers from the three organizations existed. Two random samples totaling 412 and one census population of 77 were selected. A cumulative total of 489 instruments were sent to volunteers.

The six part questionnaire covered the areas of level of involvement, reasons for participation, discretionary time devoted to volunteer activities, environmental
concern, and demographic/socio-economic information (see Appendix B). The initial survey was mailed bulk rate on March 25, 1991. A cover letter accompanied the questionnaire detailing the identity of the researchers, the organization conducting the research, the purpose of the research, and assurance of confidentiality (see Appendix A). A stamped, addressed return envelope was included to ensure return of the survey. A two week deadline was given to return the instrument.

Forty-three percent (43%) of the instruments were returned during the two week period. A reminder post card was sent April 18, 1991 to those who had not yet returned a survey. After one week, an additional thirty-three (33%) percent had returned surveys.

On May 2, 1991, a second survey and cover letter were sent to all non-respondents (see Appendix C). Again, a two week deadline was established. Table 2 provides the information on respondents.

After two weeks, 100 percent of the non-respondents from Columbus Metro Parks and Dayton Metro Parks were identified as potential contacts to determine if they were significantly different than the respondents. The researchers were not able to access the non-respondents from the Buckeye Trail Association.

Six representative questions were selected from the survey to ask during the telephone conversation. The questions covered age, gender, educational level, income, participation in the organization’s activities over the past twelve months and a question that asked how the benefits compared to the costs of being a
volunteer in this organization (Question #61). A minimum of two phone calls were made to each non-respondent. Eighty-four percent (n=26) of the non-respondents were reached by telephone. Upon conversation with these people, each agreed they were volunteers with the metro parks, but did not initially consider themselves volunteers and subsequently did not return the survey.

| Table 3.2
| Respondents By Group and Total Group

<table>
<thead>
<tr>
<th></th>
<th>Columbus Metro Parks</th>
<th>Dayton Metro Parks</th>
<th>Buckeye Trail</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Original n</td>
<td>198</td>
<td>218</td>
<td>77</td>
<td>498</td>
</tr>
<tr>
<td>Frame error</td>
<td>4</td>
<td>20</td>
<td>5</td>
<td>29</td>
</tr>
<tr>
<td>Adjusted n</td>
<td>194</td>
<td>198</td>
<td>72</td>
<td>464</td>
</tr>
<tr>
<td>Refused to answer</td>
<td>2</td>
<td>3</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Usable instruments</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Usable returned instruments</td>
<td>147</td>
<td>137</td>
<td>52</td>
<td>336</td>
</tr>
<tr>
<td>Usable return rate</td>
<td>75.8%</td>
<td>69.2%</td>
<td>72.2%</td>
<td>72.4%</td>
</tr>
</tbody>
</table>

Chi-square and t-tests were computed comparing non-respondents answers with those that returned the survey. Table 3.2 illustrates the comparison between respondents and non-respondents.
Table 3.3
Non-Respondents and Respondents: Comparison for Non-Response Bias

<table>
<thead>
<tr>
<th>Question</th>
<th>Number of Cases</th>
<th>t Value</th>
<th>Degrees of Freedom</th>
<th>Sig. T</th>
</tr>
</thead>
<tbody>
<tr>
<td>Importance of Outdoor Recreation</td>
<td>26</td>
<td>-.69</td>
<td>308</td>
<td>.493</td>
</tr>
<tr>
<td>Benefits/Costs</td>
<td>26</td>
<td>-4.66</td>
<td>306</td>
<td>.000</td>
</tr>
<tr>
<td>Participation</td>
<td>26</td>
<td>2.31</td>
<td>298</td>
<td>.022</td>
</tr>
<tr>
<td>Age</td>
<td>25</td>
<td>4.03</td>
<td>299</td>
<td>.000</td>
</tr>
<tr>
<td>Income</td>
<td>22</td>
<td>-.69</td>
<td>279</td>
<td>.488</td>
</tr>
<tr>
<td>Education</td>
<td>26</td>
<td>.75</td>
<td>301</td>
<td>.451</td>
</tr>
</tbody>
</table>

The analysis indicated that significant differences existed between the groups in three areas: age, benefits and costs derived from participation, and amount of participation. The non-respondents did not participate as much as the respondents and thus did not perceive themselves as volunteers. The two groups also significantly differed in age, as well as the perceived benefits derived from the organizations. These two differences could also be related to the minimal amount of participation due to time and/or financial restraints of children, career, or civic duties. The non-respondents were younger and did not perceive as many benefits compared to the costs of participating in these organizations.
Instrumentation

The survey instrument was designed to measure 1) the importance of outdoor recreation for volunteers, 2) the strength of environmental concern for volunteers, 3) the strength the expressive benefits desired by participants, 4) the distinction between the three components of commitment, 5) socio-economic status, and 6) demographic information.

The independent and dependent variables were identified through the literature review. Measurement of various factors were adapted from previous studies of volunteer behavior, religious behavior, outdoor recreation participation, and environmental concern (Dennis and Zube 1988, Buchanan 1985). Scales and measurements were adapted to best fit the theorized model.

After the instrument was developed, it was reviewed by a panel of experts which included faculty in the Department of Agricultural Economics and Rural Sociology, the Department of Agricultural Education, and the School of Natural Resources, and field professionals with volunteer groups (see Appendix D). Content validity refers to the extent to which the instrument represents the content of the interest (Kerlinger 1973). The instrument was field tested after necessary corrections were made. The two groups used for the field test were Columbus/Franklin County Park District volunteers and the Dayton/Montgomery County Park District volunteers.
Operationalization of Variables

The independent variables were: 1) selected socio-economic variables such as income, occupation, and education, 2) demographic variables such as age and gender, and 3) the volunteer organization. The volunteer group to which the respondent belonged was used as a control variable to determine if results for hypothesized relationships would be different for each volunteer group.

The intervening variables were: 1) general importance of outdoor recreation to life interests, 2) environmental concerns as instrumental benefit, and 3) expressive benefits. The dependent variable is commitment. Commitment was measured by three components: focused behavior, side-bets, and affective attachment.

Independent Variables

Age - Respondent's age was calculated by asking the year of birth. This measurement is a ratio scale (Question #91 - In what year were you born? See Appendix A).

Gender - Respondents were asked to select either female or male for this nominal scale (Question #92 - What is your gender?).

Income - Respondents were asked to check the category that best applied to the net family income from all sources in 1990. Grouped in $10,000 increments, the categories started with "Less than $20,000" and progressing to $60,000. The upper end of the income spectrum was broken into larger categories "$60,001 to $75,000, $75,001 to $100,00, and over $100,001". This
was an interval scale (Question #93 - What is your net family income from all sources in 1990?).

Education - Respondents were asked to circle the highest level of education completion. The categories were based on formal schooling and were grouped by traditional schooling patterns: Elementary-less than 8, 9, 10, 11, 12, 13, 14, 15, 16, and Post graduate-more than 16. This scale is interval (Question #94 - Please circle your highest level of education.).

Occupational/Employment status - Occupational status was measured by asking respondents to check the category that best described their present occupation. The ten categories were based on surveys by the National Opinion Research Center. This scale was nominal (Question #95 - Are you presently: Check one that applies.). The second measurement was employment status which was defined as the amount of employment, such as full-time, part-time, retired, self-employed, full-time homemaker, or unemployed. This was also a nominal scale (Questions #96 - If employed outside the home, please check the category that best describes your present job.). These scales were combined to more accurately assess the employment situation of the members of the surveyed organization, first by selecting out all those retired persons into a category, and then homemakers were selected. Any further response to Question #96 by these individuals was ignored. These two categories were then added to the categories in Question #96. A more accurate picture of employment and occupation was
created by this combination. This variable was further recoded into three categories so that it could effectively be used in regression analysis. The categories were: "Professional", which included professional, manager, administration, technical, farm self employed, and non-farm self-employed; "Skilled" which included skilled crafts persons, trades persons, laborer, clerical/sales, and students; and "Retired/homemakers" which included those who have retired and those who work full-time in the home.

Organization - Questionnaires were coded to identify the specific group in which respondents participated in volunteer activity.

Importance of Outdoor Recreation - Respondents were asked to rank the importance of outdoor recreation activities relative to other interests in their life. The eleven point scale ranked zero (0) as very unimportant, five (5) as neutral, and ten (10) being very important. This is a ordinal scale (Question #7 - On a scale of 1 to 10, how important are outdoor recreation activities in your life.).

Environmental Concern - This scale was adapted from scales previously used, most recently by Dennis and Zube (1987). These statements were general, but captured the sense of importance of natural resources and environment to the groups surveyed. Respondent's were asked to respond to the statement by agreement or disagreement on a five point Likert scale. This is an ordinal scale.
Question #85 - I would be willing to make personal sacrifices for the sake of slowing pollution even though the immediate results may not seem significant.

Question #86 - Pollution is not personally affecting me.

Question #87 - The benefits of modern consumer products are more important than the pollution that results from their production and use.

Question #88 - Courses focusing on the wise use of natural resources should be taught in public schools.

Question #89 - Although there is continued contamination of our lakes, streams, and air, nature's purifying processes soon returns them to normal.

Question #90 - Industry is trying it's best to develop effective anti-pollution technology.

The reliability analysis (Cronbach's alpha) indicated a moderately strong reliability score of .6483.

**Expressive Benefits Scale** - The instrumental scale was developed from the responses to statements about why people currently participate as volunteers. The respondents were asked to respond on a 5 point Likert scale with one (1) being "not important" and five (5) being "very important".

Question #10 - To gain a sense of achievement

Question #14 - To express my feelings
Question #20 - To keep in shape physically
Question #21 - To keep in shape mentally
Question #24 - To gain recognition in my community
Question #25 - To meet new people
Question #28 - To have fun
Question #30 - To gain recognition from others
Question #37 - To develop close friendships among other members
Question #45 - To enhance personal leadership skills

The reliability analysis indicated a high reliability among these items (Cronbach’s alpha = .8014).

**Dependent Variables - Commitment**

The dependent variables of commitment is theorized to be comprised of three sub-components. These three sub-scales are theorized to be intercorrelated. In the event that the intercorrelation does not allow sub-scales to be effective or separate, a total commitment factor will be used as the dependent variable.

**Focused behavior** - Two ways of measuring focused behavior were used. The first measure used attitudinal variables as an alternative measure of focused behavior. In the case that problems arose with the computation of this variable, the attitudinal scores will be the primary measure, because it is consistent with the other component measures.
Respondents were also asked to agree or disagree with statements that addressed the choice to participate in the organization's activities.

Question #67 - Sometimes, I choose to participate in this organization's functions rather than activities with my family (Strongly Disagree to Strongly Agree).

Question #68 - I attend activities of this organization consistently (Strongly Disagree to Strongly Agree).

Question #82 - Rather than being with other friends, sometimes I choose this organization's functions (Strongly Disagree to Strongly Agree).

The reliability on the three attitude responses indicated a moderate reliability of .5360. The reliability analysis indicated if question #68 was deleted, the Cronbach's alpha was increased to .6583.

The second measure was a ratio scale developed from questions #62, #63, and #64. This ratio was developed to indicate the proportion of discretionary time devoted to the organization in question (i.e., for every hour spent with this organization, x number of hours were spent with other organizations). Respondents were asked how much time was spent participating in the organization's activities during the past year as well as questions asking how much time was spent with other volunteer organizations.

Question #62 - How many hours, on the average, did you spend in activities of this organization during the past year? Include time
spent on committees, general meetings, and projects/assigned activities. ____ hours/month.

Question #63 - To how many other volunteer organizations, including religious, fraternal, political or civic, do you belong?

Question #64 - How many hours per month, on the average, do you spend on volunteer activities with these other organizations in Question #63. ____ hours/month.

The ratio measure provided no consistency with the attitudinal variables. A zero-order correlation was calculated between the number of hours of participation in the environmental organization and the attitudinal variables. Again, the relationship was very weak (see Table 3.4). Further analysis used only the attitudinal variables as a measure of focused behavior.

<table>
<thead>
<tr>
<th>Table 3.4</th>
<th>Zero Order Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choose organization over family</td>
<td>Choose organization over friends</td>
</tr>
<tr>
<td>Hours of participation</td>
<td>-.0662</td>
</tr>
<tr>
<td>$\alpha = .117$</td>
<td>$\alpha = .033$</td>
</tr>
</tbody>
</table>
Side-bets - Respondents were asked to agree or disagree with statements concerning the amount of investments within and attachment to the organization in which they participate. These statements addressed contributions to the organization, investments in friendships, identification with the organization, and other investments. These questions were all Likert scale responses ranging from strongly disagree to strongly agree.

Question #69 - Since I have contributed little to this organization, it would be easy to leave.

Question #72 - There are other groups I would belong to if this organization didn't require so much effort.

Question #75 - My participation in this organization prevents me from developing close personal friendships outside of it.

Question #76 - I have so much invested in this organization it would be difficult for me to leave.

Question #79 - Being identified with this organization by other people is important to me.

Question #84 - I have developed so many friendships in this organization, it would be difficult to leave.

The reliability analysis indicated a moderate strength in reliability of .4741. The analysis indicated that by removing question #72, the reliability would increase to .5691.
Affective attachment - Respondents were asked to agree or disagree with statements concerning their attachment to the goals, objectives, and philosophies of the organization. These statements addressed sense of belonging, pride in the organization, support for organization's existence, sense of achievement, and tangible results. These questions were also Likert scale responses from strongly disagree to strongly agree.

Question #66 - This organization provides me with a sense of belonging.

Question #70 - I am indifferent about being a member of this organization.

Question #71 - I feel a sense of pride from being a member of this organization.

Question #73 - I can identify/support the reasons for this organization's existence.

Question #78 - Participation in this organization gives me little sense of achievement.

Question #81 - I can see the results of my efforts through what I do for this organization.

The reliability analysis indicated a moderately strong reliability among variables (Cronbach's alpha = .6520).

Focused behavior, side-bets and affective attachment are theorized to be highly intercorrelated and constitute the factor of commitment. Correlation
coefficients were produced to compare the means of the components of commitment. A one-tailed test was used because it has more strict parameters. The alpha level was .05.

Although these constructs had low reliability scores, correlations were run between the scales to test the interrelationships between the theorized scales. Between FOCUSED BEHAVIOR and SIDE-BETS, there was a significant positive relationship (P = .3581, \( \alpha = .000 \)). Interpreted, as focused behavior increases, side-bets also increase. Between SIDE-BETS and AFFECTIVE ATTACHMENT, there was a significant positive relationship (P = .2337, \( \alpha = .000 \)). Again, as side-bets increase, affective attachment increases as well. Between AFFECTIVE ATTACHMENT and FOCUSED BEHAVIOR, there was a significant positive relationship (P = .4186, \( \alpha = .000 \)). Once again, as affective attachment increases, so then does focused behavior. There were positive relationships between the scales, but the low reliability indicated that further testing was necessary to better construct the commitment factor.

The barely acceptable reliability scores suggested another approach would be appropriate. All the theorized attitudinal variables were entered into the reliability analysis to produce a total reliability score. The attitudinal factors were used because the measures were the same and provided consistency for measurement. Fifteen items were entered into the analysis. These fifteen items provided a reliability score of .7431. The analysis was carried to its logical conclusion. After the first variable was deleted, the reliability score increased to .7690. After
the second variable was deleted, the reliability increased to .7825. The next three variables deleted increased the reliability to .7886. Of the ten remaining variables, nine were included in the final reliability scores of the three scales for focused behavior, side-bets, and affective attachment. The results of the total reliability analysis are illustrated in Table 3.5.

The total reliability score indicates that there are relationships between the components of commitment, but it does indicate if the components are indeed separate and distinct. Before continuing the regression analysis, factor analysis was completed to determine if the variables would factor together as the literature indicates.

Factor analysis is a statistical technique to test the intercorrelations among a set of variables. Factor analysis is used to determine the number of constructs needed to account for intercorrelations and explain underlying commonalities. In order to determine which measures factor together, a reduction in the number of measurement outcomes into a smaller set of variables takes place with a minimum loss of information (Ary et al. 1985; Hair et al. 1987). All the variables are considered simultaneously, which follows an individual observation of each factor of a dependent variable as a function of the original variables (Johnson 1980). The mean scores of the variables were used in an oblique rotation.

The oblique rotation resulted in four factors (Table 3.6). None of these factors distinctly resembled any of the theorized constructs. Each of the four factors contained variables from all three of the theorized components. While the
<table>
<thead>
<tr>
<th>Focused behavior</th>
<th>V136</th>
<th>V137</th>
<th>V151</th>
<th>V138</th>
<th>V145</th>
<th>V148</th>
<th>V153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes, I choose to participate in this organization's functions rather than activities with my family (V136).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.0</td>
</tr>
<tr>
<td>I attend activities of this organization consistently (V137).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.1072</td>
</tr>
<tr>
<td>Rather than being with other friends, sometimes I choose this organization's functions (V151).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.4855</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Side bets</th>
<th>V136</th>
<th>V137</th>
<th>V151</th>
<th>V138</th>
<th>V145</th>
<th>V148</th>
<th>V153</th>
</tr>
</thead>
<tbody>
<tr>
<td>Since I contributed little to this organization, it would be easy to leave (V138).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.1870</td>
</tr>
<tr>
<td>I have so much invested in this organization it would be difficult for me to leave (V145).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.1888</td>
</tr>
<tr>
<td>Being identified with this organization by other people is important to me (V148).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.1835</td>
</tr>
<tr>
<td>I have developed so many friendships in this organization, it would be difficult to leave (V153).</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.1381</td>
</tr>
</tbody>
</table>
Table 3.5 (con't.)
Total Reliability Analysis
For Commitment Factor

<table>
<thead>
<tr>
<th>Affective attachment</th>
<th>V136</th>
<th>V137</th>
<th>V151</th>
<th>V138</th>
<th>V145</th>
<th>V148</th>
<th>V153</th>
</tr>
</thead>
<tbody>
<tr>
<td>This organization provides me with a sense of belonging (V135).</td>
<td>.1786</td>
<td>.2926</td>
<td>.2223</td>
<td>.3779</td>
<td>.2319</td>
<td>.2119</td>
<td>.4159</td>
</tr>
<tr>
<td>I am indifferent about being a member of this organization (V139).</td>
<td>.1336</td>
<td>.2838</td>
<td>.2055</td>
<td>.4996</td>
<td>.2200</td>
<td>.2681</td>
<td>.1957</td>
</tr>
<tr>
<td>I can see the results of my efforts through what I do for this organization (V150).</td>
<td>.1533</td>
<td>.2942</td>
<td>.2876</td>
<td>.3534</td>
<td>.2642</td>
<td>.2782</td>
<td>.3376</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Affective attachment</th>
<th>V135</th>
<th>V139</th>
<th>V150</th>
</tr>
</thead>
<tbody>
<tr>
<td>This organization provides me with a sense of belonging (V135).</td>
<td>1.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am indifferent about being a member of this organization (V139).</td>
<td>.2729</td>
<td>1.0</td>
<td></td>
</tr>
<tr>
<td>I can see the results of my efforts through what I do for this organization (V150).</td>
<td>.4279</td>
<td>.3332</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total reliability = .7886
factors did not confirm any of the theorized separate components, it did reaffirm that there are intercorrelations of the variables that compose a total commitment factor.

When an oblique rotation was forced to find three factors, again each of the three factors contained variables from all the theorized components. This finding further emphasizes the intercorrelated relationships of these variables and indicated that the separate constructs do not exist as theorized in the literature.

For further analysis, an orthogonal rotation was conducted (Appendix E). The VARIMAX option completed the rotation after seven iterations. Four factors were listed, and they were almost identical to those in the oblique rotation. The conclusion from this analysis is that the interpretation of the factors does not change based on the type of rotations (SPSSX, 1990: p. 336).

For further analysis, the ten variables (Table 3.5) with a reliability of .7886 were used as the commitment factor (COMMITMENT). The total reliability analysis and the factor analyses indicated intercorrelations, but did not confirm separate and distinct sub-scale measurements of commitment as the literature outlined.

Factor Analysis

This research attempted to outline the components of commitment as interrelated but separate measures. Whereas the separate scales, as the literature indicated, did not exist when the variables were entered into the factor analysis.
The factor analysis indicated different constructs of commitment. When an oblique rotation was completed four factors resulted. None of these factors resembled the sub-scales theorized to measure commitment. Individual items within each factor were examined as to the reason why they loaded together. In general, the factor analysis revealed that there was a high amount of interrelatedness among the items. Several variables had an influence on all factors. An item may have loaded only one-one-hundredth of a point higher on one factor than another. This indicates that these items have interrelationships that make separate factors difficult to distinguish.

The first factor contained items that addressed the individual's relationship to the organization. Specifically, these items reflect what the individual receives in return for participation. These "return" items included friendships developed in the organization, investment, consistent participation, sense of belonging, and recognition. According to the literature, these items should have been distributed into the three components of commitment - focused behavior, affective attachment, or side-bets (Kanter 1968; Ritzer and Trice 1969; Becker 1960; Alutto et al. 1973; Vroom 1964; Katz and Kahn 1966; Schoerr and Greeley 1974; Buchanan 1985).

The second factor reflected a negative aspect or cost to participation in the organization. Indifference about membership, lack of opportunities to belong to other organizations, and friendships or relationships that have suffered because of participation in the organization reflect the negative or consequences of
participation. The second factor consisted of items hypothesized to belong to both focused behavior and affective attachment.

The third factor reflected the external benefits of membership, such as sense of pride from membership, support for the organization's existence, and identification as a member of the organization by other people. These items were originally theorized to be either affective attachment or side-bets.

The last factor contained items that specifically addressed choice of participation over other activities and achievement derived from participation. According to the literature, these items should have measured focused behavior and affective attachment. An oblique rotation that forced three factors was completed in twelve iterations.

The first factor can be summarized as the value derived from participation in the organization, BENEFITS OF PARTICIPATION. The second factor focused on the costs of participation, such as lack of opportunities for other friendships and participation in other organizations, CONSEQUENCES OF PARTICIPATION. The third factor included items that addressed external benefits to participation, such as pride in the organization and support for the organization's existence, EXTERNAL REINFORCEMENTS FOR PARTICIPATION. As with the first oblique rotation, the theorized constructs of commitment were distributed over the three factors. Also, some variables influenced all three factors but loaded higher with a particular factor by only fractions of a point.
The factors as the analysis indicated are as follows:

Factor 1 - Benefits of Participation

Since I have contributed little to this organization, it would be easy for me to leave (V138).

I have developed so many friendships in this organization, it would be difficult to leave (V153).

I have invested so much in this organization, it would be difficult for me to leave (V145).

I attend activities of this organization consistently (V137).

I am indifferent about being a member of this organization (V139).

This organization provides me with a sense of belonging (V135).

I can see the results of my efforts through what I do for this organization (V150).

Factor 2 - Consequences of Participation

My participation in this organization prevents me from developing close personal friendships outside of it (V144).

There are other groups I would belong to if this organization didn’t require so much effort (V141).

Sometimes, I choose to participate in this organization’s functions rather than activities with my family (V136).
Rather than being with other friends, sometimes I choose this organization's functions (V151).

Participation in this organization gives me little sense of achievement (V147).

**Factor 3 - External Reinforcements for Participation**

I can identify/support the reasons for this organization's existence (V142).

I feel a sense of pride from being a member of this organization (V140).

Being identified with this organization by other people is important to me (V148).

Factor 1 - BENEFITS OF PARTICIPATION resembled the total COMMITMENT factor eventually used in the path analysis. BENEFITS OF PARTICIPATION was composed of seven of the ten variables used in the total COMMITMENT factor. Factor 1 was composed of variables that focused on the benefits associated with participation in the organization.

Factor 2 - CONSEQUENCES OF PARTICIPATION focused primarily on the consequences or sacrifices the individual incurs from participation in a particular organization. Factor 3 - EXTERNAL REINFORCEMENT FOR PARTICIPATION focused primarily on the positive aspects beyond direct personal benefits. The external reinforcements are defined as how others view the participant.

Factors 2 and 3 contained variables that influenced all three factors but loaded into a particular factor by one-tenth or one-hundredth of a point. The questionable loadings were theorized to affect the reliability of each of each of
these factors. The reliability analysis for Factor 1 - BENEFITS OF PARTICIPATION produced a Cronbach's alpha of .7746. The Cronbach's alpha for Factor 2 - CONSEQUENCES OF PARTICIPATION was .4704. If V147 was deleted from the analysis, the alpha increased to .4978. The Cronbach's alpha for Factor 3 - EXTERNAL REINFORCEMENTS FOR PARTICIPATION was .4983. If V148 was deleted from this analysis, the alpha increased to .5174. However, Factors 2 and 3 did not have acceptable reliability scores, so further use of these factors as measures of commitment should be guarded.

The total reliability analysis and the factor analysis lead to the conclusion that H1: is rejected because separate and distinct measures of commitment were not found. However, this analysis does support the contention that there are intercorrelations between the theorized sub-components of commitment. Although these sub-components were not found to be separate, aspects of focused behavior, side-bets, and affective attachment still comprise commitment. Therefore, technically, H2, H3, and H4, are accepted.

Data Analysis

Data analysis was accomplished by utilizing the Statistical Package for the Social Sciences (SPSSX) which was available at the Instruction and Research Computer Center, The Ohio State University. Descriptive statistics were used as a basis to organize the data for summary of variables. Frequencies, percentages,
central tendency measures, and variability were used to describe the characteristics of participants.

Correlation coefficients were used to describe the nature and strength of relationships between variables. Correlation describes the relationship between the values of \( x \) and the values of \( y \). A positive correlation would indicate that as the value of \( x \) increases, the value of \( y \) increases. A positive correlation would also be indicated if the value of \( x \) decreases and subsequently the value of \( y \) decreases. A negative relationship would be observed if the value of \( x \) increased and the value of \( y \) decreased. The correlation coefficient falls between -1.0 and +1.0. A coefficient of -1.0 or +1.0 indicates a perfect relationship, which is rare in the social sciences. Coefficients nearing the ends of the continuum (-.70 or +.70) would be considered very strong (Davies 1971; Johnson 1980).

Path Analysis

Path analysis was developed as a method for testing the magnitude of direct and indirect effects between variables (Wright 1921, 1960). It is a method applied to develop and test a causal model based on theoretical considerations and past research (Pedhazur 1982). The notion of causation implies the predictability of possible manipulation of the variables (SPSS manual 1990).

The assumptions of path analysis are:

- the relations among the variables in the model are linear, additive, and causal;
### Table 3.6
Oblique Factor Analysis

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have developed so many friendships in this organization, it would be difficult to leave (V153).</td>
<td>.79169</td>
<td>.15676</td>
<td>.04991</td>
<td>.04385</td>
</tr>
<tr>
<td>I have so much invested in this organization it would be difficult for me to leave (V145).</td>
<td>.69507</td>
<td>.09228</td>
<td>.12239</td>
<td>.09213</td>
</tr>
<tr>
<td>I attend activities of this organization consistently (V137).</td>
<td>.61591</td>
<td>.12345</td>
<td>.10698</td>
<td>.04372</td>
</tr>
<tr>
<td>This organization provides me with a sense of belonging (V135).</td>
<td>.56169</td>
<td>.08183</td>
<td>.26948</td>
<td>.04207</td>
</tr>
<tr>
<td>Since I contributed little to this organization, it would be easy to leave (V138).</td>
<td>.53121</td>
<td>.48923</td>
<td>.08015</td>
<td>.10897</td>
</tr>
<tr>
<td>I can see the results of my efforts through what I do for this organization (V150).</td>
<td>.44750</td>
<td>.16547</td>
<td>.34052</td>
<td>.07735</td>
</tr>
<tr>
<td>My participation in this organization prevents me from developing close personal friendships outside of it (V144).</td>
<td>.18792</td>
<td>.80466</td>
<td>.05161</td>
<td>.00534</td>
</tr>
<tr>
<td>I am indifferent about being a member of this organization (V139).</td>
<td>.27121</td>
<td>.70304</td>
<td>.08514</td>
<td>.21938</td>
</tr>
<tr>
<td>There are other groups I would belong to if this organization didn’t require so much effort (V141).</td>
<td>.10133</td>
<td>.43515</td>
<td>.19815</td>
<td>.31053</td>
</tr>
<tr>
<td>I feel a sense of pride from being a member of this organization (V140).</td>
<td>.07861</td>
<td>.07752</td>
<td>.79131</td>
<td>.01126</td>
</tr>
<tr>
<td>I can identify/support the reasons for this organization’s existence (V142).</td>
<td>.20419</td>
<td>.12040</td>
<td>.74143</td>
<td>.08679</td>
</tr>
<tr>
<td>Being identified with this organization by other people is important to me (V148).</td>
<td>.34205</td>
<td>.16276</td>
<td>.37605</td>
<td>.21799</td>
</tr>
</tbody>
</table>
Table 3.6 (cont.)
Oblique Factor Analysis

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes, I choose to participate in this organization's functions rather than activities with my family (V136).</td>
<td>.09500</td>
<td>.11101</td>
<td>.09032</td>
<td>.87644</td>
</tr>
<tr>
<td>Rather than being with other friends, sometimes I choose this organization's functions (V151).</td>
<td>.17548</td>
<td>.03518</td>
<td>.10480</td>
<td>.71234</td>
</tr>
<tr>
<td>Participation in this organization gives me little sense of achievement (V147).</td>
<td>.31077</td>
<td>.27272</td>
<td>.19685</td>
<td>.32805</td>
</tr>
</tbody>
</table>
Table 3.7
Factor Analysis Pattern Matrix
Oblique Rotation - Force Three Constructs

<table>
<thead>
<tr>
<th>Variable</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>V138</td>
<td>.73365*</td>
<td>-.22834</td>
<td>-.00565</td>
</tr>
<tr>
<td>V153</td>
<td>.70373*</td>
<td>.14922</td>
<td>-.05036</td>
</tr>
<tr>
<td>V145</td>
<td>.67578*</td>
<td>.21875</td>
<td>-.14810</td>
</tr>
<tr>
<td>V139</td>
<td>.66740*</td>
<td>.01104</td>
<td>-.11315</td>
</tr>
<tr>
<td>V135</td>
<td>.55156*</td>
<td>-.08395</td>
<td>.20820</td>
</tr>
<tr>
<td>V150</td>
<td>.49158*</td>
<td>-.08034</td>
<td>.33711</td>
</tr>
<tr>
<td>V144</td>
<td>-.11240</td>
<td>.63520*</td>
<td>-.17784</td>
</tr>
<tr>
<td>V141</td>
<td>-.01859</td>
<td>-.59633*</td>
<td>.14884</td>
</tr>
<tr>
<td>V136</td>
<td>.13198</td>
<td>.53901*</td>
<td>.41294</td>
</tr>
<tr>
<td>V151</td>
<td>.33187</td>
<td>.49740*</td>
<td>.33819</td>
</tr>
<tr>
<td>V147</td>
<td>.32064</td>
<td>-.44962*</td>
<td>.08710</td>
</tr>
<tr>
<td>V142</td>
<td>-.19220</td>
<td>-.16008</td>
<td>.75862*</td>
</tr>
<tr>
<td>V140</td>
<td>-.01432</td>
<td>-.06544</td>
<td>.72136*</td>
</tr>
<tr>
<td>V148</td>
<td>.29306</td>
<td>.25557</td>
<td>.37943*</td>
</tr>
</tbody>
</table>
- each residual is correlated with the variables that precede it in the model;
- there is one-way causal flow in the system;
- variables are measured on an interval scale; and
- variables are measured without error.

Given the assumptions, the method of "path analysis reduces to the solution of one or more multiple linear regression analyses" (Pedhazur 1982; p. 582). A path coefficient indicates the direct effect of a variable hypothesized as a cause and another variable as the effect (Wright 1921, 1960; Pedhazur 1982).

Path analysis is a form of multiple regression, which is a method of analyzing the variability of a dependent variable (Y) by using information available on two or more independent variables (X). Multiple regression provides explanation of the variability of the dependent variable through linear relationships of the independent variables to each other and to the dependent variables.

R² is the coefficient of determination. This statistic describes the magnitude of the regression of Y on the X's. R² is the estimate of the proportion of the variance of the dependent variable explained by the combination of the independent variables. The correlation of predicted Y's with the observed Y's results in R.

Beta coefficients (β) are the standardized regression coefficients indicating the amount of change in the dependent variable based on the unit change in the independent variable while controlling for the effects of other variables in the
analysis (Johnson 1980; Pedhauzer 1982). The beta coefficients allow comparison with like units rather than comparing different measures. Standardized partial regression coefficients are scale free indices and can be compared across different independent variables.
Chapter IV

Findings

This chapter presents the findings on variables that influence commitment to environmental organizations. The model (Figure 2.1) presented in Chapter II served as a guide for analysis and subsequent findings. This chapter is divided into three sections. The first section is a report of the descriptive statistics for the independent and dependent variables. The second section includes the results of the correlation coefficients matrix. The third section will contain the results of the blocked regression analysis.

Descriptive Analysis

Age

Approximately 43 percent (43.1%) of the volunteers surveyed were 61 years or older (Table 4.5). Only 5.5 percent of the volunteers were 30 years of age or younger (n=18). Approximately 12 percent (12.4%) of the volunteers were 80 years or older. The results of the frequency distribution indicates a bi-modal distribution. Two age categories comprised most of the participants, those 61 to 70 years old.
years old (25.6%) and those 41 to 50 years old (22.1%). The average age of respondents was 55 years. The results are illustrated in Table 4.8.

Gender

Of those responding, 202 people were female (60.3%) and 133 people were male (39.7%). There was one missing case. The results are shown in Table 4.9.

Education

Of the 437 respondents, 55.9 percent (n = 184) had at least the equivalent of a college degree. Only 2.4 percent (n = 8) had less than 12 years of education. The mean education level was 14.9 years, or equivalent to a junior in college. The distribution for education is contained in Table 4.10:

Income Distribution

The net family income distribution was divided into eight categories. Except for the extreme upper end of the income scale, the categories were evenly distributed by $10,000 increments.

Of those responding, a majority (57.1%) reported an annual family income of $40,000 or less (Table 4.11). Only 8.4 percent reported an income of $60,000 or more. The grouped mean income of respondents was represented by the $40,000 - 50,000 category.
Table 4.8
Age

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 30</td>
<td>18</td>
<td>5.5%</td>
</tr>
<tr>
<td>31-40</td>
<td>42</td>
<td>12.8</td>
</tr>
<tr>
<td>41-50</td>
<td>73</td>
<td>22.3</td>
</tr>
<tr>
<td>51-60</td>
<td>53</td>
<td>16.2</td>
</tr>
<tr>
<td>61-70</td>
<td>97</td>
<td>29.7</td>
</tr>
<tr>
<td>Over 70</td>
<td>44</td>
<td>13.5</td>
</tr>
</tbody>
</table>

n = 327  mean = 55.024 years of age

Table 4.9
Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>202</td>
<td>60.3%</td>
</tr>
<tr>
<td>Male</td>
<td>133</td>
<td>39.7%</td>
</tr>
</tbody>
</table>

n = 335
Table 4.10
Education

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Elementary (8 and under)</td>
<td>2</td>
<td>.6%</td>
</tr>
<tr>
<td>9</td>
<td>3</td>
<td>.9</td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>3</td>
<td>.9</td>
</tr>
<tr>
<td>12</td>
<td>62</td>
<td>18.8</td>
</tr>
<tr>
<td>13</td>
<td>21</td>
<td>6.4</td>
</tr>
<tr>
<td>14</td>
<td>36</td>
<td>10.9</td>
</tr>
<tr>
<td>15</td>
<td>18</td>
<td>5.5</td>
</tr>
<tr>
<td>16</td>
<td>75</td>
<td>22.8</td>
</tr>
<tr>
<td>17</td>
<td>109</td>
<td>33.1</td>
</tr>
</tbody>
</table>

n = 329  mean = 14.954 years of education

Table 4.11
Income Distribution

<table>
<thead>
<tr>
<th>Income Category</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under $20,000</td>
<td>53</td>
<td>17.1%</td>
</tr>
<tr>
<td>$20,001-30,000</td>
<td>65</td>
<td>21.0</td>
</tr>
<tr>
<td>$30,001-40,000</td>
<td>59</td>
<td>19.0</td>
</tr>
<tr>
<td>$40,001-50,000</td>
<td>42</td>
<td>13.5</td>
</tr>
<tr>
<td>$50,001-60,000</td>
<td>41</td>
<td>13.2</td>
</tr>
<tr>
<td>$61,001-75,000</td>
<td>24</td>
<td>7.7</td>
</tr>
<tr>
<td>$75,001-100,000</td>
<td>14</td>
<td>4.5</td>
</tr>
<tr>
<td>Over $100,000</td>
<td>12</td>
<td>3.9</td>
</tr>
</tbody>
</table>

n = 310  mean = 3.4 ($30,000 - 40,000 income for 1990)
Employment/Occupation

The recoded employment/occupation category had twelve response categories. Slightly more than one third of the participants responded by indicating "retired" as their employment status (36.2%). The next sizeable group of participants indicated they were employed in professional occupations (n=54, 17.3%). Another large segment of respondents were those that indicated that they were homemakers (n = 45, 14.4%). The frequency distribution is represented in Table 4.12. This variable was further recoded into three hierarchical categories (professional, skilled/trade, and retired/homemaker), so that it could be used more effectively in the regression analysis.

Importance of Outdoor Recreation

A majority of respondents indicated that outdoor recreation was at least somewhat important to very important in their life's activities (87.8%). Twenty eight individuals were neutral about the importance of outdoor recreation (12.2%). Only 3.9 percent of the respondents indicated that outdoor recreation was not important. The mean score for this scale was 8.2, which indicated that outdoor recreation was generally rated as very important. The frequency distribution is presented in Table 4.13.
Table 4.12  
Occupation

<table>
<thead>
<tr>
<th>Occupation Category</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled/Craftsperson</td>
<td>13</td>
<td>4.2%</td>
</tr>
<tr>
<td>Self employed</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Professional</td>
<td>54</td>
<td>17.3</td>
</tr>
<tr>
<td>Management/Administration</td>
<td>18</td>
<td>5.8</td>
</tr>
<tr>
<td>Labor</td>
<td>7</td>
<td>2.2</td>
</tr>
<tr>
<td>Clerical/Sales</td>
<td>25</td>
<td>8.0</td>
</tr>
<tr>
<td>Technical</td>
<td>22</td>
<td>7.1</td>
</tr>
<tr>
<td>Farm Self employed</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Student</td>
<td>3</td>
<td>1.0</td>
</tr>
<tr>
<td>Other</td>
<td>6</td>
<td>1.9</td>
</tr>
<tr>
<td>Retired</td>
<td>113</td>
<td>36.2</td>
</tr>
<tr>
<td>Homemaker</td>
<td>45</td>
<td>14.4</td>
</tr>
</tbody>
</table>

n = 312

Table 4.13  
Importance of Outdoor Recreation

<table>
<thead>
<tr>
<th>Importance Scale</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very Unimportant</td>
<td>0</td>
<td>.6%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1.2</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>.3</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1.5</td>
</tr>
<tr>
<td>Neutral</td>
<td>5</td>
<td>8.3</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>2.7</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>8.6</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>25.9</td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>13.1</td>
</tr>
<tr>
<td>Very Important</td>
<td>10</td>
<td>37.5</td>
</tr>
</tbody>
</table>

n = 336  
mean = 8.27
Environmental Concern

This scale consisted of six statements based on previous research. A majority of respondents indicated that they would be willing to make personal sacrifices in order to reduce pollution (83.1%). Only 13.8 percent were neutral in their feelings about this statement. The mean for this statement was 4.2 or between agree and strongly agree.

A vast majority of respondents agreed or strongly agreed the wise use of natural resources should be taught in schools (89.4%). Only four percent (4.5%) did not agree with this statement. The mean for this statement was 4.5.

Several questions were reverse coded for analysis to better reflect the participant’s environmental concern. Volunteers were asked to respond to the statement about pollution not directly affecting the participant. Almost 60 percent (59.6%) strongly disagreed with this statement (n = 198). Only 8.1 agreed that pollution was not affecting them personally. The mean for this statement was 4.3.

Over eighty percent (81.3%) disagreed that the benefits of modern consumer products were more important than the pollution that results from their production. Only 3.3 percent agreed that the product benefits outweighed the pollution created. This question was reverse coded. The mean for this statement was 4.3.

When asked to respond to nature’s purifying processes, 84.2 percent disagreed or strongly disagreed that nature could continue to purify contamination in streams, lakes and air. This variable also was reverse coded. The mean for this statement was 4.3 or leaning towards disagreement.
When asked about industry's response to anti-pollution technology, the volunteers' attitudes were more evenly distributed than other statements. Of those responding, 31.3 percent strongly disagreed that industry was trying its best to develop effective anti-pollution technology. Over thirty five percent (35.9%) disagreed with the statement and 22.8% had neutral attitudes concerning this statement. Ten percent (10%) agreed or strongly agreed that industry was trying its best to respond. This variable was reverse coded. The mean for this statement was 3.8 or between neutral and disagree. The distributions for these responses are illustrated in Table 4.14.

Although the means for these statements lean towards "concern for a clean environment", the lack of consistent strong means may indicate that their ideology is not as strong as other environmental groups.

Participation During Past Year

Participation ranged from one hour to two hundred and fifty hours per month during the past year. Six people indicated that they did not participate during the past year and subsequently these people were eliminated from further analyses because they were not participating volunteers. At the other end of the continuum, there were six people who indicated they volunteered more than one hundred hours per month, including one individual who indicated an average of two hundred and fifty hours per month (this individual was also eliminated). The mean for volunteer participation was 16.5 hours per month.
Table 4.14
Environmental Concern

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would be willing to make personal sacrifices for the sake of slowing down pollution even though the immediate results may not seem significant. (mean = 4.2)</td>
<td>4</td>
<td>6</td>
<td>46</td>
<td>125</td>
<td>152</td>
</tr>
<tr>
<td>Courses focusing on the wise use of natural resources should be taught in public schools. (mean = 4.5)</td>
<td>10</td>
<td>5</td>
<td>20</td>
<td>54</td>
<td>242</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution is not personally affecting me. (mean = 4.2)</td>
<td>198</td>
<td>72</td>
<td>35</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>The benefits of modern consumer products are more important than the pollution that results from their production. (mean = 4.2)</td>
<td>185</td>
<td>84</td>
<td>37</td>
<td>14</td>
<td>11</td>
</tr>
<tr>
<td>Although there is continued contamination of our lakes, streams, and air, nature's purifying processes soon returns them to normal. (mean = 4.3)</td>
<td>196</td>
<td>81</td>
<td>33</td>
<td>16</td>
<td>3</td>
</tr>
<tr>
<td>Industry is trying it's best to develop effective anti-pollution technology. (mean = 3.8)</td>
<td>103</td>
<td>118</td>
<td>75</td>
<td>29</td>
<td>4</td>
</tr>
</tbody>
</table>
Participation was grouped into categories. The majority of respondents indicated that they volunteered between one and ten hours per month (63.7%, n = 214). Sixty-one people indicated they participated between eleven and twenty hours per month (18.1%). The frequency distribution for participation during the past year is illustrated in Table 4.15.

Membership in Other Volunteer Organizations

Participants were asked to indicate how many other volunteer organizations in which they held membership. Seventy-six respondents indicated they belonged to one other organization (22.8%). Seventy-seven people indicated they belonged to two other volunteer organizations (23.1%). Sixty-seven people did not belong to any other volunteer organizations (20.1%). The distribution of responses for this question is illustrated in Table 4.16.

Hours of Participation in Other Organizations

Respondents indicated a range in number of hours in other organizations. Other volunteer organizations were defined as religious, fraternal, political, or civic groups. Almost one-quarter (23.5%) of the respondents indicated they did not participate in any other volunteer organization. Fifty-seven (57) people indicated they gave twenty-one (21) hours or more to other organizations per month (17.4%). The range of hours reported was zero (0) to two hundred hours (200). The mean number of hours of volunteer participation in other organizations was 13.7 hours.
Table 4.15
Participation During Past Year

<table>
<thead>
<tr>
<th>Hours Per Month</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>6</td>
<td>1.8%</td>
</tr>
<tr>
<td>1 - 10</td>
<td>214</td>
<td>63.7</td>
</tr>
<tr>
<td>11 - 20</td>
<td>61</td>
<td>18.1</td>
</tr>
<tr>
<td>21 - 30</td>
<td>14</td>
<td>4.2</td>
</tr>
<tr>
<td>Over 30</td>
<td>41</td>
<td>12.2</td>
</tr>
<tr>
<td>(Range 31 - 250)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 336  mean = 16.512 hours per month

Table 4.16
Membership in Other Volunteer Organizations

<table>
<thead>
<tr>
<th>Other Organizations</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>67</td>
<td>20.1%</td>
</tr>
<tr>
<td>1</td>
<td>76</td>
<td>22.8</td>
</tr>
<tr>
<td>2</td>
<td>77</td>
<td>23.1</td>
</tr>
<tr>
<td>3</td>
<td>53</td>
<td>15.9</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>4.8</td>
</tr>
<tr>
<td>5</td>
<td>22</td>
<td>6.6</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>3.3</td>
</tr>
<tr>
<td>7</td>
<td>5</td>
<td>1.5</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10 or more</td>
<td>5</td>
<td>1.5</td>
</tr>
</tbody>
</table>

n = 333  mean = 2.1
Table 4.17
Hours of Participation in Other Organizations

<table>
<thead>
<tr>
<th>Range</th>
<th>Frequency</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>77</td>
<td>23.5%</td>
</tr>
<tr>
<td>1-10 hrs.</td>
<td>126</td>
<td>39.8</td>
</tr>
<tr>
<td>11-20</td>
<td>63</td>
<td>19.3</td>
</tr>
<tr>
<td>21-30</td>
<td>20</td>
<td>6.1</td>
</tr>
<tr>
<td>31-40</td>
<td>19</td>
<td>5.8</td>
</tr>
<tr>
<td>41 or more</td>
<td>18</td>
<td>5.5</td>
</tr>
</tbody>
</table>

n = 327  mean = 13.7
For consistency, all the variables used in the commitment factor are reported under the name of the sub-component where the literature indicated the variable should be contained.

**Focused Behavior Attitude Variables**

Volunteers responded to statements about their participation in respect to their choice of behaviors. For each statement the "neutral" category was the mode, meaning they neither disagreed nor agreed with the statement. When asked if the participant chose organizational activities over functions with the family, 46.2 percent disagreed or strongly disagreed with the statement. One hundred-six people had neutral opinions about this statement (31.6%). The mean for this variable was 2.5.

When asked to respond to the statement about attending activities consistently, 41.5 percent agreed or strongly agreed. One-third of the respondents (33.9%) indicated they were neutral about their feelings on this statement. The mean for this variable was 3.2.

One-third of the respondents (36.2%) agreed or strongly agreed that they chose the organization's functions over activities with friends. One third of the respondents were neutral about this statement. The remaining one-third disagreed or strongly disagreed with this statement. The mean for this variable was 3.0.

The means for each of these statements is presented in table 4.18.
## Table 4.18
Focused Behavior Variables

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sometimes, I choose to participate in this organization's functions rather than activities with my family. (mean = 2.5)</td>
<td>96</td>
<td>60</td>
<td>105</td>
<td>54</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>28.9%</td>
<td>18.1%</td>
<td>31.6%</td>
<td>16.3%</td>
<td>5.1%</td>
</tr>
<tr>
<td>I attend activities of this organization consistently. (mean = 3.2)</td>
<td>37</td>
<td>44</td>
<td>112</td>
<td>93</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>11.2%</td>
<td>13.3%</td>
<td>33.9%</td>
<td>28.2%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Rather than being with other friends, sometimes I choose this organization's functions. (mean = 3.0)</td>
<td>47</td>
<td>50</td>
<td>113</td>
<td>93</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>14.3%</td>
<td>15.2%</td>
<td>34.3%</td>
<td>28.3%</td>
<td>7.9%</td>
</tr>
</tbody>
</table>
Side bets Variables

Side-bets variables measured investments of the volunteers in environmental organizations. Two of the side bets variables were reverse coded so they could be used accurately for the analysis. The strength of disagreement by the respondent indicated higher side-bet investments.

Two hundred-twenty-nine (229) respondents disagreed or strongly disagreed with the statement about little investment in the organizations (69%). Sixty-seven people indicated they were neutral (20.2%). The mean for this variable was 3.9. These respondents indicate the investments made to the organizations are important to them. These investments contribute to the retention of participants in the organization.

Two hundred-forty people (240) disagreed or strongly disagreed with the statement, "There are other groups I would belong to if this organization didn't require so much effort" (72.7%). Only 3.9 percent (n=13) agreed or strongly agreed with this statement. The mean for this variable was 4.2. A reciprocal statement concerning investment in the organization garnered similar responses. The statement was "I have invested so much in this organization, it would be difficult for me to leave". One hundred-seventy-one people disagreed or strongly disagreed with the statement (51.8%). Eighty-five people had neutral feelings about this statement (25.8%). The mean for this variable was 2.5.

Two statements addressed friendships inside and outside the organization. Only 3 percent (n=10) agreed or strongly agreed that participation in the
organization prevents the development of friendships outside the organization. Two hundred-fifty-nine people strongly disagreed with this statement (77.5%). The mean for this variable was 1.4. Over one-third (35.3%) disagreed or strongly disagreed with the statement "I have developed so many friendships in this organization, it would be difficult to leave". Almost one-third (31.6%) had neutral feelings about this statement. The mean for this variable was 2.9.

In regards to importance of identification as a member of the organization more than one-third (38.3%) were neutral in their feelings. Another one-third (36.7%) agreed or strongly agreed that identification with this organization was important. The mean for this variable was 3.1.

The responses and means are represented in Table 4.19.

**Affective Attachment**

The affective attachment variables were those that represented attachment to the goals and values of a role, activity, organization, or resource. The statements concerned sense of belonging, sense of achievement, support for the organizations' existence, and acknowledging the results of efforts by members of the organization.

Two questions were reverse coded to better represent affective attachment. Two hundred-two people strongly disagreed that they were indifferent about their membership in the organization (60.8%). Thirty-seven people were neutral about
### Table 4.19
Side bets Variables

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>My participation in this organization prevents me from developing close personal friendships outside of it. (mean = 1.4)</td>
<td>259</td>
<td>35</td>
<td>30</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>77.5%</td>
<td>10.5%</td>
<td>9.0%</td>
<td>1.5%</td>
<td>1.5%</td>
</tr>
<tr>
<td>I have invested so much in this organization, it would be difficult for me to leave. (mean = 2.5)</td>
<td>101</td>
<td>70</td>
<td>85</td>
<td>48</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>30.6%</td>
<td>21.2%</td>
<td>25.8%</td>
<td>14.5%</td>
<td>7.9%</td>
</tr>
<tr>
<td>Being identified with this organization by other people is important to me. (mean = 3.1)</td>
<td>45</td>
<td>38</td>
<td>127</td>
<td>86</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td>13.6%</td>
<td>11.4%</td>
<td>38.3%</td>
<td>25.9%</td>
<td>10.8%</td>
</tr>
<tr>
<td>I have developed so many friendships in this organization, it would be difficult to leave. (mean = 2.9)</td>
<td>53</td>
<td>64</td>
<td>105</td>
<td>66</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>16.0%</td>
<td>19.3%</td>
<td>31.6%</td>
<td>19.9%</td>
<td>13.3%</td>
</tr>
<tr>
<td>Since I have contributed little to this organization, it would be easy to leave. (mean = 3.9)</td>
<td>13</td>
<td>23</td>
<td>67</td>
<td>79</td>
<td>150</td>
</tr>
<tr>
<td></td>
<td>3.9%</td>
<td>6.9%</td>
<td>20.2%</td>
<td>23.8%</td>
<td>45.2%</td>
</tr>
<tr>
<td>There are other groups I would belong to if this organization didn't require so much effort. (mean = 4.2)</td>
<td>4</td>
<td>9</td>
<td>77</td>
<td>61</td>
<td>179</td>
</tr>
<tr>
<td></td>
<td>1.2%</td>
<td>2.7%</td>
<td>23.35</td>
<td>18.5%</td>
<td>54.2%</td>
</tr>
</tbody>
</table>
this statement (11.1%). The mean for this variable was 4.3. Three quarters of the respondents disagreed or strongly disagreed that the organization gave them little sense of achievement (n=249). Only forty six people indicated they had neutral feelings about this statement. The mean for this variable was 4.1.

When asked to respond to the statement, "This organization provides me with a sense of belonging, two hundred-nine people agreed or strongly agreed (67.4%). One hundred-two persons indicated they had neutral feelings about this statement (30.4%). The mean for this variable was 3.7. Similarly, three-quarters of the respondents (76%) agreed or strongly agreed that they had a sense of pride from being a member of the organization (n=254). Only forty-four people had neutral about this statement (13.2%). The mean for this variable was 4.1.

A majority of the respondents (n = 210, 88.3%) agreed or strongly agreed that they can identify or support the reasons for the organizations existence. Only fifteen people indicated they disagreed or strongly disagreed with this statement (4.5%). The mean for this variable was 4.4.

Two hundred-twenty-six people agreed or strongly agreed that they could see the results of efforts of the organization (68.3%). Seventy-seven people were neutral about this statement (23.3%). The mean for this variable was 3.8. The means and responses are presented in Table 4.20.
Table 4.20
Affective Attachment Variables

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>This organization provides me with a sense of belonging. (mean = 3.7)</td>
<td>2.1%</td>
<td>5.1%</td>
<td>30.4%</td>
<td>36.1%</td>
<td>26.3%</td>
</tr>
<tr>
<td>I feel a sense of pride from being a member of this organization. (mean = 4.1)</td>
<td>6.0%</td>
<td>4.8%</td>
<td>13.2%</td>
<td>29.0%</td>
<td>47.0%</td>
</tr>
<tr>
<td>I can identify/support the reasons for this organization's existence. (mean = 4.4)</td>
<td>3.3%</td>
<td>1.2%</td>
<td>7.2%</td>
<td>25.4%</td>
<td>62.9%</td>
</tr>
<tr>
<td>I can see the results of my efforts through what I do for this organization. (mean = 3.8)</td>
<td>3.6%</td>
<td>5.4%</td>
<td>23.3%</td>
<td>41.4%</td>
<td>26.9%</td>
</tr>
<tr>
<td>I am indifferent about being a member of this organization. (mean = 4.3)</td>
<td>3.3%</td>
<td>3.3%</td>
<td>11.1%</td>
<td>21.4%</td>
<td>60.8%</td>
</tr>
<tr>
<td>Participation in this organization gives me little sense of achievement. (mean = 4.1)</td>
<td>5.2%</td>
<td>5.2%</td>
<td>14.0%</td>
<td>27.4%</td>
<td>48.3%</td>
</tr>
</tbody>
</table>
Expressive Benefits

Expressive benefits is a measure of the personal benefits volunteers feel they gain through participation in the environmental group. Participants responded to these statements on a scale of not important to very important. The expressive benefits are those benefits that directly affects the individual by participation in the organization.

When asked to respond to the desire for a sense of achievement, 100 people (30.3%) indicated that it was very important and another eighty-five indicated that this aspect was an important benefit (25.8%). The mean score for this statement was 3.5 or between neutral and important on the response scale.

Ninety-six persons indicated that participation in the organization was important or very important for the expression of feelings (29%). One-hundred-one people did not think this was an important aspect of their participation (30.5%). The mean for this variable was 2.6.

One-hundred-fourteen people indicated that participation was important or very important to keep them in shape physically. One-hundred-one people indicated that keeping in shape physically was not important to their participation in the organization (30.4%). The mean for this variable was 2.8.

Over half (n = 173, 52.4%) of the respondents indicated that keeping in shape mentally was an important or very important benefit of participation. Seventy persons (21.2%) responded that they had neutral feelings about this benefit. The mean for this variable was 3.2.
Two-hundred seventeen people responded that community recognition was not important to their participation in the organization (65.0%). Seven people (2.1%) indicated that community recognition was very important to their participation. The mean for this variable was 1.6.

Over half (52.1%) of those responding indicated that participation in the organization was important or very important to meet new people (n=174). Ninety-nine people had neutral feelings on this statement (29.6%). Forty-one people indicated that meeting new people was not important to their participation (12.3%). The mean for this variable was 3.4.

Again, over half (57.6%) of those responding indicated that an important or very important benefit to participation was to have fun (n=192). However, twenty three people indicated this was not an important benefit of their participation (6.9%). The mean for this variable was 3.6.

Similar to the desire for community recognition, recognition from others was not an important benefit to participation in the organization for most persons responding (n=178, 54.4%). Six people indicated that this was a very important reason for participation (1.8%). The mean for this variable was 1.8.

One-hundred-one people responding indicated that developing close friendships was important or very important to their participation in the organization (30.5%). Almost the same number of people indicated they had neutral feelings about this benefit (n=100, 30.2%). The mean for this variable was 2.8.
Developing personal leadership skills was not an important benefit of participation for 47.6 percent of the respondents (n=158). Only sixty-five agreed that this was an important or very important aspect to their participation (19.6%). The mean for this variable was 2.2. The means and responses are presented in Table 4.21.

Path Analysis

As the methodology outlined, a total commitment variable was initially used to examine the significant relationships in the model. Path analysis was used to identify significant relationships between model components. The amount of variance explained by each variable is important to note. Four path analysis equations were tested: 1) demographic variables, socio-economic variables, expressive benefits, and environmental concern with indirect effects of outdoor recreation were regressed on commitment; 2) demographic variables, socio-economic variables, and outdoor recreation were regressed on expressive benefits; 3) demographic variables, socio-economic variables, and outdoor recreation were regressed on environmental concern; and 4) demographic variables and socio-economic variables were regressed on outdoor recreation. The results of the path analyses can found in Table 4.22.

Importance of Outdoor Recreation

The demographic and socio-economic variables explained 5 percent of the variance of the importance of outdoor recreation. Hypothesis $H_b$ states that there should be a
<table>
<thead>
<tr>
<th>Statement</th>
<th>Not Important</th>
<th>Somewhat Important</th>
<th>Neutral</th>
<th>Important</th>
<th>Very Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>To gain a sense of achievement (mean = 3.55)</td>
<td>33</td>
<td>37</td>
<td>75</td>
<td>85</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>10.0%</td>
<td>11.2%</td>
<td>22.7%</td>
<td>25.8%</td>
<td>30.3%</td>
</tr>
<tr>
<td>To express my feelings (mean = 2.63)</td>
<td>101</td>
<td>48</td>
<td>86</td>
<td>64</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>30.5%</td>
<td>14.5%</td>
<td>26.0%</td>
<td>19.3%</td>
<td>9.7%</td>
</tr>
<tr>
<td>To keep in shape physically (mean = 2.78)</td>
<td>101</td>
<td>37</td>
<td>80</td>
<td>60</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>30.4%</td>
<td>11.1%</td>
<td>24.1%</td>
<td>18.1%</td>
<td>16.3%</td>
</tr>
<tr>
<td>To keep in shape mentally (mean = 3.21)</td>
<td>62</td>
<td>25</td>
<td>70</td>
<td>129</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>18.8%</td>
<td>7.6%</td>
<td>21.2%</td>
<td>39.1%</td>
<td>13.3%</td>
</tr>
<tr>
<td>To gain recognition in my community (mean = 1.64)</td>
<td>217</td>
<td>47</td>
<td>50</td>
<td>13</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>65.0%</td>
<td>14.1%</td>
<td>15.0%</td>
<td>3.9%</td>
<td>2.1%</td>
</tr>
<tr>
<td>To meet new people (mean = 3.40)</td>
<td>41</td>
<td>20</td>
<td>99</td>
<td>111</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>12.3%</td>
<td>6.0%</td>
<td>29.6%</td>
<td>33.2%</td>
<td>18.9%</td>
</tr>
<tr>
<td>To have fun (mean = 3.62)</td>
<td>23</td>
<td>24</td>
<td>94</td>
<td>107</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>6.9%</td>
<td>1.2%</td>
<td>28.2%</td>
<td>32.1%</td>
<td>25.5%</td>
</tr>
<tr>
<td>To gain recognition from others (mean = 1.83)</td>
<td>178</td>
<td>63</td>
<td>57</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>54.4%</td>
<td>19.3%</td>
<td>17.4%</td>
<td>7.0%</td>
<td>1.8%</td>
</tr>
<tr>
<td>To develop close friendships among other members (mean = 2.78)</td>
<td>81</td>
<td>49</td>
<td>100</td>
<td>62</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>24.5%</td>
<td>14.8%</td>
<td>30.2%</td>
<td>18.7%</td>
<td>11.8%</td>
</tr>
<tr>
<td>To enhance personal leadership skills (mean = 2.19)</td>
<td>158</td>
<td>40</td>
<td>69</td>
<td>42</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>47.6%</td>
<td>12.0%</td>
<td>20.8%</td>
<td>12.7%</td>
<td>6.9%</td>
</tr>
</tbody>
</table>
significant positive relationship between age and the importance of outdoor recreation. The literature has indicated that as age increases, participation in certain outdoor recreation activities decrease (Sessoms 1963). However, the importance of outdoor recreation activities does not necessarily decrease when participation decreases (Kelly 1978; Bultena et al. 1978). Participation in activities changes as age increases, and the function of these activities may change. Thus, the importance of outdoor recreation may change. However, no significant relationship was found between AGE and IMPORTANCE OF OUTDOOR RECREATION, therefore, hypothesis 9B was rejected.

Hypothesis 9A states that there should be a significant relationship between GENDER and IMPORTANCE OF OUTDOOR RECREATION. However, no significant relationship was found. Men and women did not significantly differ in the perception of importance of outdoor recreation. Therefore, hypothesis 9A was rejected.

Hypothesis 10A indicated there should be a significant positive relationship between education and the importance of outdoor recreation. Previous literature has highlighted education as positively associated with participation in outdoor recreation (Sessoms 1963; Hendee et al. 1971a). Outdoor recreation enthusiasts tend to have higher education levels (Outdoor Recreation Resources Review Commission 1962; Driver and Field 1976; Bultena and Field 1978). However, the results in Table 4.22 reveal no significant relationship between EDUCATION and IMPORTANCE OF OUTDOOR RECREATION. Therefore, H10A was rejected.
OCCUPATION was recoded into three categories in hierarchial order. "Professional" was ranked as "three", "skilled/trade" was ranked as "two", and "retired/homemaker" was ranked as "one". Hypothesis $H_{10c}$: indicated there should be a significant positive relationship between occupation and the importance of outdoor recreation. In later years as time became more discretionary, the importance of outdoor recreation would increase. The literature indicated that higher educated, higher socio-economic status occupations tend to have a higher participation in outdoor recreation activities (Kelly 1978; Salisbury 1975; Lane 1959; Kelbert 1980; Dennis and Zube 1987). There was no significant relationship between IMPORTANCE OF OUTDOOR RECREATION and OCCUPATION. Therefore, $H_{10c}$: is rejected because no significant relationship was found.

Hypothesis $H_{10b}$: stated there should be a significant positive relationship between income and the importance of outdoor recreation. Hendee et al. (1971) found that outdoor recreation participants tend to be younger, highly educated and more likely to have higher incomes related to non-manual occupations (Bultena and Field 1978; Dennis and Zube 1988). As with education, outdoor recreation enthusiasts tend to have higher income levels that allow discretionary finances and time to be used on recreation equipment and travel to a particular recreation area. When INCOME was correlated with IMPORTANCE OF OUTDOOR RECREATION, no significant relationship emerged. Therefore, $H_{10b}$: was rejected.
Expressive Benefits

This path analysis regressed the five demographic and socio-economic variables and the importance of outdoor recreation on the factor of expressive benefits. These variables explained 9 percent of the expressive benefits. Hypothesis $H_{13B}$ indicated that there should be a significant positive relationship between age and expressive benefits. Cohen-Mansfield (1989) found a positive association of age and participation in neighborhood organizations in large urban areas. The participation would be assumed to have some intrinsic or social benefits to the individual that motivates their continued participation. However, no significant relationship was found to exist between AGE and EXPRESSIVE BENEFITS and $H_{13B}$ was rejected.

Hypothesis $H_{13A}$ stated there should be a significant relationship between gender and expressive benefits. Gustafson et al. (1979) indicated that when controlling for occupation, women show higher levels of membership and participation. However, there was no significant relationship between GENDER and EXPRESSIVE BENEFITS. $H_{13A}$ was also rejected.

Hypothesis $H_{14C}$ indicated there should be a significant positive relationship between occupation and expressive benefits. Defee et al. (1974) concluded that participation in organizations was disproportional to the upper occupational categories, therefore, the benefits desired from participation are also influenced by occupation. Again, a significant relationship between occupation and expressive benefits was not found. Therefore, $H_{14C}$ was rejected.
Hypothesis $H_{14B}$: stated there should be a significant positive relationship between income and expressive benefits. When INCOME was correlated EXPRESSIVE BENEFITS, no significant relationship was found, therefore, $H_{14B}$ was rejected.

Hypothesis $H_{14A}$: indicated there should be a significant positive relationship between education and expressive benefits. Social science research has indicated a relationship between group membership and social status (Lane 1959; Milbrath 1965; Defee et al. 1974; Harry et al. 1969, 1971; Stern and Noe 1973; Kelbert 1980). Higher education level and higher income influence a person's desire to join as well as the influence the benefits derived from participation. A significant negative relationship was found to exist between EDUCATION and EXPRESSIVE BENEFITS ($-0.173$, $P<0.01$). As level of education increased, the desired personal benefits sought from participation in the organization decreased. Therefore, $H_{14A}$ was rejected because a positive relationship was not found.

Hypothesis $H_5$: indicated there should be a significant positive relationship between importance of outdoor recreation and expressive benefits. A complete index of desired benefits and outcomes from outdoor recreation participation is not available because each individual has different desires (Burch 1964; Neulinger and Breit 1969; Pierce 1980; Ewart 1985). Previous experience in outdoor recreation activities influences future participation (Schreyer et al. 1984), and subsequently the desired outcomes will also influence participation and the importance of those activities. A significant positive relationship was found to exist between
IMPORTANCE OF OUTDOOR RECREATION and EXPRESSIVE BENEFITS (.202, P < .001). The higher the importance of outdoor recreation activities ranked in the individuals' life, the increased desire for personal benefits attained by participation in the organization likewise increased, therefore, $H_8$ was accepted.

Environmental Concern

This path analysis regressed the five demographic and socio-economic variables and the importance of outdoor recreation on environmental concern. These variables explained 11 percent of environmental concern. Three significant relationships were found in this analysis. Hypothesis $H_{1B}$ indicated that there should be a significant positive relationship between age and environmental concern. As age increased, the increased awareness of environmental impacts of the individual would likewise increase (Dennis and Zube 1988). However, the results in Table 4.22 indicate a significant negative relationship between AGE and ENVIRONMENTAL CONCERN (-.141, P < .05). As the age of the participant increased, the strength of concern for the environment decreased. This finding does not mean that older adults are not environmentally concerned, but it should be noted that the strength of concern decreases as age increases. The results of this study may differ from the general body of research literature due to the large number of retired persons in the survey. Since a negative relationship was found, $H_{1B}$ was rejected.
GENDER was dummy coded as females equal to "zero" and males equal to "one". Hypothesis $\text{H}_{1\text{A}}$ indicated that there should be a significant relationship between gender and environmental concern. Jenner (1982) indicated that women's motivations for participation included altruism (i.e. instrumental) and self actualization (i.e. expressive) (Jenner 1982). There was a significant relationship between GENDER and ENVIRONMENTAL CONCERN ($-.185, P < .01$). Females had a stronger concern for the environment than male respondents. Therefore, $\text{H}_{1\text{A}}$ was accepted.

Hypothesis $\text{H}_{2\text{C}}$ stated there should be a significant positive relationship between occupation and environmental concern. Like expressive benefits, participation in conservation organizations has disproportionately come from the upper occupational categories (Harry et al. 1969; Stern and Noe 1973). Mohai (1985) contends that activists in environmental groups are more likely to come from the upper middle class than other social classes. There was no significant relationship between OCCUPATION and ENVIRONMENTAL CONCERN. Therefore, $\text{H}_{2\text{C}}$ was rejected because no significant relationship was not found.

Hypothesis $\text{H}_{2\text{B}}$ stated there should be a significant positive relationship between income and environmental concern. Similar to education and occupation, those persons involved with environmentally focused groups tend to have higher incomes (Dunlap and Heffernan 1975; Buttel and Flinn 1978; VanLiere and Dunlap 1980; Lowe and Pinhey 1982; Mohai 1985). When INCOME was re-
gressed on ENVIRONMENTAL CONCERN, no significant relationship emerged. Therefore, $H_{12B}$ was rejected because no significant relationship was found.

Hypothesis $H_{12A}$: stated there should be a significant positive relationship between education and environmental concern. Many environmental groups have an outdoor recreation function. There has been a confirmed relationship between higher education levels among outdoor recreation enthusiasts (Dunlap and Heffernan 1975; Geisler et al. 1977). However, there was no significant relationship between EDUCATION and ENVIRONMENTAL CONCERN. Therefore, $H_{12A}$ was rejected.

Hypothesis $H_7$: stated there should be a significant positive correlation between the importance of outdoor recreation activities and environmental concern. Gale (1972) maintained that strong personal attachment to outdoor recreation activity can lead to commitment to protect the area that directly contributes to the enjoyment of the activity. Dunlap and Heffernan (1975) suggest that as increased participation in outdoor recreation is likely to indicate a concern in for maintenance environmental concern, such as protecting a recreation site. This relationship was borne out by the results in Table 4.22. A significant positive relationship was found to exist between IMPORTANCE OF OUTDOOR RECREATION and ENVIRONMENTAL CONCERN ($0.160, P<0.001$). As the importance of outdoor recreation activities in one's life increased, the strength of environmental concern increased as well. Therefore, $H_7$ was accepted.
Commitment

This path analysis regressed the five demographic and socio-economic variables, expressive benefits, and environmental concern on the ten item scale of commitment. These variables explained 16 percent of commitment. The analysis produced four significant relationships.

Hypothesis 15B stated that there would be a significant positive relationship between age and commitment to the organization. The literature indicated that as age increased, investments and connections to an organization would strengthen as participation in the organization increased or continued over time (Bell and Force 1956; Babchuk and Gordon 1962; Babchuk and Edwards 1965). Age was found to have a significant positive relationship with commitment (.154, P<.05). Therefore, hypothesis 15B was accepted.

Hypothesis 15A stated that a significant relationship would exist between gender and commitment to the organization. The literature shows inconsistent results concerning gender influence on participation and subsequently, commitment to an organization. Booth and Babchuk (1969) theorized that men and women participated in different volunteer organizations. Curry (1980) challenged the contention that women have higher levels of participation when controlling for education. Considering the high level of education of the participants, the significant relationship found between GENDER and COMMITMENT would support Curry's contention. Gender had a significant negative relationship (-.129, P<.05). Hypothesis 15A was accepted.
Hypothesis_16B_: stated that there should be a significant positive relationship between INCOME and COMMITMENT. Resource mobilization theory suggests that social movements and volunteer organizations would utilize those members of society that have financial and political resources to further the objectives of the organization (McCarthy and Zald 1977). Therefore, there should be a significant relationship between income and participation in the organization. A significant positive relationship was found between INCOME and COMMITMENT (.124, P<.05). This significant positive relationship indicates that as income increases, commitment to the organization strengthens. Therefore, hypothesis_16B_ was accepted because a significant positive relationship emerged.

Hypothesis_16A_ and_16C_: theorized that there should be a significant positive relationship between education and occupation and commitment to the organization. Again, resource mobilization theory indicates that organizations tend to recruit those persons with higher education and higher status occupations (Buttel and Flinn 1978; Dennis and Zube 1988). However in this particular study, no significant relationships were found between EDUCATION and COMMITMENT, and between OCCUPATION and COMMITMENT. Therefore, hypothesis_16A_ and_16C_ were rejected.

H_5_: stated there should be a significant relationship between environmental concern and commitment to the organization (Dennis and Zube 1988). No significant relationship was found to exist between ENVIRONMENTAL CONCERN and COMMITMENT. This result was surprising considering the nature of
the organizations, however, this relationship may not have been significant because all the organizations were environmentally focused and all the members had a manual commitment to volunteer. Therefore, \( H_5 \) was rejected.

\( H_6 \) stated there should be a significant positive relationship between expressive benefits and commitment to the organization. Altruistic behavior exhibited by participation does not account for all behavior in instrumental organizations. Expressive benefits, such as making new friends, physical fitness, or sense of achievement, are also gained by participation (Booth and Babchuk 1969). A significant positive relationship was found to exist between \textsc{EXPRESSIVE BENEFITS} and \textsc{COMMITMENT} (.338, \( P < .001 \)). As personal benefits desired from participation increased, strength of commitment to the organization also increased. Therefore, \( H_6 \) was accepted.

**Summary of Path Model**

Path analysis also allows assessment of how the intervening variables modify the strength of commitment (Lobao and Thomas 1988). The only complete significant path was education to expressive benefits to commitment. All other significant paths were isolated and not complete from beginning to end of the model. Indirect effects can be calculated by running the model again using only the significant paths. However, in this study, the lack of more than one path does not warrant the model being estimated again (Asher 1989). The results of the path analysis are illustrated in Table 4.22. The significant paths of the model are also highlighted in Appendix F.
Table 4.22
Path Analysis Results

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Importance of Outdoor Recreation</th>
<th>Expressive Benefits</th>
<th>Environmental Concern</th>
<th>Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expressive Benefits 2</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>.338 (P&lt;.001)</td>
</tr>
<tr>
<td>Environmental Concern 3</td>
<td>------</td>
<td>------</td>
<td>------</td>
<td>.033 (ns)</td>
</tr>
<tr>
<td>Importance of Outdoor Recreation 4</td>
<td>------</td>
<td>.202 (P&lt;.001)</td>
<td>.160 (P&lt;.001)</td>
<td>------</td>
</tr>
<tr>
<td>Age 5</td>
<td>-.026 (ns)</td>
<td>-.128 (ns)</td>
<td>-.141 (P&lt;.05)</td>
<td>.154 (P&lt;.05)</td>
</tr>
<tr>
<td>Gender 6</td>
<td>.057 (ns)</td>
<td>-.048 (ns)</td>
<td>-.185 (P&lt;.01)</td>
<td>-.129 (P&lt;.05)</td>
</tr>
<tr>
<td>Income 7</td>
<td>.061 (ns)</td>
<td>-.061 (ns)</td>
<td>.051 (ns)</td>
<td>.124 (P&lt;.05)</td>
</tr>
<tr>
<td>Education 8</td>
<td>.107 (ns)</td>
<td>-.173 (P&lt;.01)</td>
<td>.114 (ns)</td>
<td>-.095 (ns)</td>
</tr>
<tr>
<td>Occupation 9</td>
<td>.111(ns)</td>
<td>-.087 (ns)</td>
<td>.045 (ns)</td>
<td>.040 (ns)</td>
</tr>
<tr>
<td>R²</td>
<td>.05</td>
<td>.09</td>
<td>.11</td>
<td>.16</td>
</tr>
</tbody>
</table>
Chapter V

Summary, Conclusions, and Recommendations

This chapter is divided into four parts. In the first part, the contribution of each component of the model will be assessed as to its overall contribution and effectiveness. The second part of the chapter will address the factor analysis results in comparison to the literature. The third part of this chapter will discuss regression analysis and implications of the regression results. The fourth part will include implications for managers of volunteer organizations and recommendations for future research in the areas of commitment and volunteer behavior.

Summary of Findings

Descriptive Analysis

The volunteer participants responding to the survey had an average age of 55 years. The majority of respondents were 61 years of age or older (43.1%). Only 5.5 percent of the respondents were 30 years or younger. These results follow the conclusions of previous literature which found that older persons volunteer more than younger persons (Cohen-Mansfield 1989; Bell and Force 1956; Babchuk and Gordon 1962; Babchuk and Edwards 1965).
More than half of the respondents (55.9%) had the equivalent of a college degree or more. One third of the total respondents had the equivalent of post graduate education. The mean educational level was 14.9 years, that is at the junior college level or a two year technical degree. These results also agree with the literature in that higher education tends to be associated with participation in volunteer activities (Hyman and Wright 1971; Tomeh 1973; McPherson and Lockwood 1980; Edwards and White 1980; Auslander and Litwin 1988; Dennis and Zube 1988; Prestby 1989). In these volunteer organizations, however, the large number of people with post graduate education was not anticipated and the their high level of education is noteworthy. Why did these particular groups have a higher than expected educational level? Is this true of volunteer groups with a different ideology than the social movement from which the volunteer groups emerged? Future research should investigate the contribution of level of education to activist environmental organizations, local volunteer groups with an environmental focus, or similar organizations. Do the findings of this dissertation represent a pattern or an exception?

Employment/Occupation variables provided interesting results. Over one-third of the respondents were retired (36.2%). While this follows the previous literature, the percentage of retired persons in relation to other occupation categories was much higher than expected (Lane 1959; Milbrath 1965; Defee et al. 1974; Harry et al. 1969, 1971; Stern and Noe 1973; Salisbury 1975; Kelbert 1980). Another category that deserves attention is that of "homemakers". This category
was the third largest in number of respondents. Forty-five persons (14.4%) identified themselves as full-time homemakers. It would be valuable to know how many of those people who identified themselves as homemakers are in the upper age categories and would be considered retired if they were employed outside the home. For both retired persons and homemakers, the opportunities for volunteer participation are in many ways very optimal. Both have very flexible options for selecting among various opportunity. Do retired persons and homemakers form the core of other environmental organizations? Are these groups representative of local environmental groups as well as other local volunteer groups?

A majority of the respondents (57.1%) indicated an annual family income of $40,000 or less. The mean income was represented by the $40,000 - $50,000 category. Although annual income seems to be lower than expected considering educational level, the large number of retired persons responding influenced this figure. Therefore, income may not be a good measure of potential resources available for mobilization on behalf of the organization. Income does not measure the networks and other resources retired individuals develop while they were employed or new networks developed since they retired. While income has been used as measure of socio-economic status, it does not fully account for other networks that assist the mobilization of resources. Other networks, such as social wealth, political networks, communication networks, and industry/professional networks, are part of the resources that resource mobilization theory indicates are needed for social movements to further the cause (McCarthy and Zald 1977).
Likewise, a local volunteer group also must mobilize resources, and again income may not measure networks and resources a volunteer can bring to the group. Specifically, the retired person that is from an upper management position of a major employer still retains the communications and political networks to assist a local volunteer group to send newsletters to potential members.

A vast majority of the respondents indicated that outdoor recreation activities were somewhat important to very important in relation to life's activities. The mean for this variable was 8.2 (on a scale of zero to ten). This result follows the literature in the sense that participants in outdoor recreation activities tend to have higher education and higher income (Hendee et al. 1971; Salisbury 1975; Harry et al 1969; Kelbert 1980; Kelly 1983; Dennis and Zube 1988). A natural assumption is that if one participates in outdoor recreation activities, one would also regard these activities as having some importance. The literature indicates that past experience in recreation activities influences future participation. Therefore, the importance of outdoor recreation activities influences perceptions about factors that affect outdoor recreation activities, such as volunteering with a local park organization to maintain hiking trails.

Environmental concern was a scale of six questions. The respondents indicated that they tended to make personal sacrifices to slow pollution and endorsed the idea that natural resource courses be taught in schools. The respondents tended to disagree that pollution was not affecting them, that nature could purify man-made contaminants, and that modern production benefits outweighed
the pollution caused by their production. Only one statement brought more diverse responses than any of the others. When asked to respond to "Industry is trying it's best to develop effective anti-pollution technology", 22.8% responded as "neutral", and the remaining responses were more evenly distributed between the agreement and disagreement. The mean for this statement was 3.8 compared to the other five statements that had means between 4.2 and 4.5 on a five point Likert scale. This scale was very general in assessing environmental concern. To better assess environmental concern, statements that address specific concerns relating to the local environmental organization's mission may provide a more accurate perspective. In many instances, a national environmental organization has a broad, general agenda to assist some facet, such as "protecting Yellowstone National Park". Most people have not visited Yellowstone Park and they may not fully support the concept of saving Yellowstone. However, those same people may belong to the metro park volunteer association and the association's mission is to acquire five more acres for the arboretum because development threatens the perimeter. Operationalizing environmental concern into familiar, issues with greater local salience could better measure the effect on commitment to the local volunteer organization.

Expressive benefits were theorized to be the personal benefits derived from participation in an organization which is defined as instrumental in nature. The scale had a reliability of .8014. These items were defined as personal desires and benefits that one gains or receives from participation in the volunteer organization.
"To have fun" had a mean of 3.6, which means that it was an important benefit of participation. It is interesting to note that twenty-three (23) people indicated that having fun was not important to their volunteer participation. Other items in this scale that had similar means included gaining a sense of achievement (mean=3.6), meeting new people (mean=3.4), and keeping in shape mentally (mean=3.2). Most people (217) indicated that recognition from community was not an important benefit for volunteer participation (mean=1.6). Similarly, desire for recognition from others had a low mean (mean=1.8). The consistency in responses indicates that there are personal benefits desired from participation, but these benefits are on a personal level, such as to meet new people or to have fun, rather than benefits acknowledged at the community or public level, such as recognition by others or the community. This scale indicated that although the organization's function is to provide benefits beyond the members, personal benefits are derived from volunteer participation. Further research could explore the scope of personal benefits desired from volunteer participation, or if the desired personal benefits attracted the individual to the organization.

Factor Analysis

The implications of the factor analysis results partially support previous conclusions about the components of commitment. However, the results are also contrary to the literature. The components were operationalized as the literature indicated, but the items factored across different constructs. Focused behavior, side-bets, and affective attachment seem to be components that comprise commit-
ment, but measurement of these components needs further research. The factor analysis indicated the components of commitment are more closely related than previously suggested by Kanter (1968) and Becker (1960). Clearly separate and distinct sub-scales were not found. Several variables influenced all three factors, and three of the variables had almost the same influence on all three factors.

Another observation from the factor analysis is that a higher level of commitment to an organization may create higher interrelatedness among the variables. For example, a positive attitude about friendships in the organization may lead the individual to make further investments of volunteer time. The investment of time and the benefit of friendships may further re-enforce the positive image of the organization. The positive benefits, investments and image the individual attaches to participation in the organization becomes difficult to separate into distinct measures of commitment. One positive aspect of participation influences other aspects of participation, and subsequently, it is difficult to distinguish where one positive influence ends and another influence begins. Hence, if an individual does not have a high level of commitment, the sub-components may be more distinct. For example, an individual may support the mission and philosophy of the organization (i.e., affective attachment), but does not volunteer much time (i.e., focused behavior) nor have many friendships within the organization (i.e., side bets). The individual may not value being seen as a member of the organization, nor view the time investment as something that binds the individual with the organization. The individual may continue to volunteer
time, but other aspects of commitment may not be very strong. Therefore, the sub-constructs may be more distinct for those who are not as highly committed to an organization. The interrelationships between variables may not be as strong, and may cause the sub-constructs to separate more distinctly than those who are highly committed to the organization.

Path Analysis

As the methodology outlines, a total commitment variable was initially used to test the significant relationships in the model. Path analysis utilized the total commitment scale as the dependent variable. Path analysis was used to identify significant relationships between model components. The amount of variance explained by each variable is important to note.

The amount of variance \( (R^2) \) explained by the variables was very low for each of the path analysis equations. The path equation regressing the variables on commitment explained only 16 percent of the variance of commitment. In other words, 84 percent of the variance is explained by variables and factors not in this theoretical model.

The literature indicates that older persons contribute as volunteers to organizations. Age did have a significant positive relationship with commitment indicating as age increased, commitment strengthened. The literature has mixed conclusions about the influence gender. The results of this research indicates that gender accounts for a only small part of the variance in commitment. These
results indicate that women are more committed to environmental organizations than men. However, both age and gender need further study in regard to other aspects that may affect the volunteer participation of older persons, differing participation patterns of men and women, and how age and gender influence perceptions of commitment to volunteer organizations.

Resource mobilization literature indicates that environmental organizations utilize those persons with higher income, higher education, and higher status occupations because they have the resources to further the organization's mission. However, in this particular study, these variables had very few significant relationships with the model components. The large number of retired persons and persons with higher education may have had an influence on the effectiveness of these variables. Further research on volunteer participation in environmental organizations focusing on retired persons or specifically addressing higher education levels will contribute to a better understanding of the influence of socio-economic variables on commitment.

Although importance of outdoor recreation contributes only a small percentage of commitment to environmental organizations, "the importance of outdoor recreation activities" is a starting point for investigating the influence of outdoor recreation on commitment to these organizations. The organizations in this study have, to some degree, a recreation function and the function of those recreation activities affects commitment to the organization. For example, what is
the effect of participation in certain outdoor recreation activities on commitment of a volunteer toward an organization which promotes that kind of activity?

Expressive benefits significantly contributed to the explained variance of commitment. As stated before, the organization may have an instrumental function, such as improving a natural resource for the general public, but the largest influence on commitment to that organization is that of expressive benefits. In summary of this model component, while an organization or group may be defined as instrumental and may function as a group that provides benefits to more than the membership, the volunteers participate in the group for expressive reasons. In this study, personal benefits, such as to have fun or to meet new people are the single largest explanation of commitment. Expressive benefits should receive greater attention by researchers. For example, what is the contribution of each personal benefit to commitment. Are the desired personal benefits derived from participation a characteristic of local volunteer groups or is this a characteristic of larger environmental groups?

A surprising result is that environmental concern did not significantly explain a portion of the variance of commitment. The organizations participating in this study have an environmental focus. Volunteers that participate in these organizations would, by theory, have a significantly stronger environmental concern (Dennis and Zube 1988; Dunlap and Heffernan 1975). There are two ways to look at this result. First, the scale used to assess environmental concern may be too broad. A solution is to focus on a local issue which accurately measures environ-
mental concern for a local volunteer group. Second, while environmental concern as a scale itself does not significantly contribute to the explanation of commitment, factors that affect environmental concern may, in turn, affect commitment, such as personal concerns, demographic variables, geographic preference, or cultural experiences.

As noted, the model explained only 16 percent of the variance in commitment to a volunteer organization. This dissertation represents exploratory research with the purpose of developing a way to measure commitment and a model to predict levels of commitment. However, over three-quarters of the variance in commitment was not explained as the methodology outlines. Other factors, such as organizational considerations, may have influence on the level of commitment. Organizational considerations would include level and structure of bureaucracy, leadership style, type of leadership hierarchy, socialization to the volunteer groups, recognition, among others. The effects of the organizational structure on commitment is an avenue of further research.

**Recommendations**

**Generalization**

Strictly speaking, the results of this study are generalizable only to Columbus/Franklin County and Dayton/Montgomery County Metro Parks and Buckeye Trail Association. The study is limited to the three groups because the lack of a reliable measure of commitment. Commitment was theorized to be composed of
three measures. Separate measures were not found and subsequently, a total measure was used to ascertain level of commitment by volunteers. Until a more accurate, comprehensive measure of commitment is developed, the model is limited.

To have better generalizability, more research concerning commitment must be completed. First, additional research concerning the components of commitment needs to be conducted among more groups that have an outdoor recreation function. Second, a large variety of groups, including those with and without an environmental focus, should be used to test the concept of commitment and factors explaining commitment. Diverse groups, such as service organizations, environmental groups, political influence groups, and social reform organizations, should be surveyed to further investigate factors that influence commitment. The variables that influence commitment may differ in groups that vary in focus.

Components of Commitment

Commitment was theorized to be composed of three sub-component measures - focused behavior, side-bets, and affective attachment. The literature indicates that factors related to commitment are interrelated (Becker and Carper 1956; Becker 1960; Vroom 1964; Kanter 1968; Schoerr and Greeley 1974; Buchanan 1985). Perhaps the most significant finding of this research was that separate and distinct measures of these components was not found. However, aspects of focused behavior, side-bets, and affective attachment contribute to commitment.
The factor analysis results indicated that separate measures are difficult to distinguish because specific items influenced all the factors. The separate measures may not be possible because the variables are so highly interrelated. A more accurate measure of commitment might be a total scale as used in this research. The strongest factor resulting from the factor analysis was a compilation of the variables originally theorized to be separate. The results further reinforces an argument to use a comprehensive measure of commitment.

Reflecting on previous literature, it is now obvious that those who conceptualized commitment as three factors never empirically tested their claim. Kanter (1968) surmised the concepts of commitment from retrospective observations of communal groups, many of which ceased to exist one hundred years before Kanter began writing. Becker (1960) and Abramson et al. (1958) derived the side-bet thesis from observed accrued investments.

**Other Factors Influencing Commitment**

The small amount of variance explained by the model components indicates that there are other factors that affect level of commitment. Further study is needed to measure the influence of those factors on commitment. Such things as organizational structure and management, may influence the individual's perception of the organization's mission and thus affect level of commitment. Does the communication network employed by the organization influence level of commitment? Similarly, does the amount of organizational structure or leadership style
affect commitment? Does the evolution of the organization or change of function affect the individual’s level of commitment? The structure and management of the organization can influence different aspects of behavior, such as perception, attitude, and intentions. Another concept that may affect commitment is the pattern of recognition given to volunteers for their contributions. Does the pattern of recognition for volunteer behavior affect an individual’s level of commitment? If an individual desires recognition from others for volunteer behavior, then the individual may have a higher level of commitment to an organization with a formal recognition program.

Leadership style and structure may influence commitment to the organization. An individual may desire to participate in an organization with a less formal structure and little bureaucracy. The effect of strong ideology may influence the level of commitment to an organization. A strong ideology may attract persons to a local chapter of a national organization, but can also influence others to direct their volunteer efforts to a local organization with local issues. The strength of the ideology may also influence an individual to remain in the organization as well. Further research is needed to assess the influence of organizational structures on level of commitment.

The three groups used in this study were similar because of their environmental focus, and to some degree, outdoor recreation activity. If these facets are considered constant, then group dynamics may have an influence on the level of commitment. Group dynamics and interactions among volunteer participants could
influence the amount of participation, investments, and subsequently, level of commitment. For example, level of commitment may increase as the group successfully accomplishes tasks. Small successes can further reinforce commitment to reach larger goals. Further research is needed in the area of intra-group dynamics and level of commitment.

**Changing Participant Profiles**

Changing demographics in our society may also influence commitment to organizations. Our society is "getting older" as the baby boom generation approaches middle age and begin to approach retirement age. Early retirement, more discretionary time and financial resources, and changing work patterns affect socio-economic aspects of commitment. According to resource mobilization theory, utilizing resources is essential for a movement's success, for the utilization of resources to be effective, and for understanding how changing demographic patterns affect those resources. Discretionary time and financial resources available to the growing number of retired persons may influence patterns of participation in volunteer organizations and subsequently, level of commitment to those organizations.

This study had twice as many women responding as men. Future research should delve into the influence of gender on commitment to volunteer organizations. Changing work and social roles of women may influence choice of volunteer organizations, type of involvement, and level of commitment. This particular
study found only one significant relationship between gender and environmental concern, but the relationship was not very strong. Other significant relationships were not found in this study, however, participation in other types of volunteer groups or groups with a different focus may be affected by gender.

The previous profiles that have attempted to describe volunteers may not be accurate for today. This study indicates that a cross-section of the population was not represented by the volunteers to the three local environmental groups used in this study. The demographics of this study included a large number of retired persons. The growing population of retired persons in the U.S. should be an indication that more time and financial resources may be available for volunteer organizations. However, retirees may commit their time to non-volunteer pursuits, such as family-related responsibilities. For example, their time may be focused on the care of elderly parents, dependent children and grandchildren or activities may be focused towards unstructured volunteer activities, like helping a neighbor. As demographic and socio-economic profiles change, the effect of these changes on volunteer organizations should be the focus of future research.

**Environmental Concern with Local Focus**

Participants in organizations that have an environmental focus could logically be assumed to have some degree of environmental concern. The extent of environmental concern needs more accurate measurement (Pinhey and Grimes 1977). In this study, environmental concern did not significantly contribute to the
explanation of commitment. One explanation for the lack of significance is that local volunteer groups may not identify with broad environmental issues. The scale used in this study may have been too broad to accurately assess environmental concern. Further research on local volunteer groups should concentrate on local issues to measure environmental concern.

**Resource Mobilization Theory**

This study was an attempt to utilize resource mobilization theory in the explanation of commitment to local volunteer groups. Resource mobilization theory emphasizes relative societal support of social movement phenomenon, which allows for both expansion and decline (McCarthy and Zald 1977). The concepts of resource mobilization theory can be used to develop middle range theories that applies to small, localized volunteer groups. Resource mobilization theory has broad, generalized concepts that can be used as the base to develop applied middle range theory.

Traditional perspectives of social movement phenomenon contend that social movements are based upon grievances of the population participants. **Resource mobilization theory** contends that social movements may or may not be based upon grievances. Conscience constituents, individual and organizational, provide major sources of support. In some cases supporters may have no commitment to the values that underlie specific movements (McCarthy and Zald 1977). Middle range theories should address the demographics of supporters, commitment
and non-commitment of supporters, motivations for participation, and recruitment of volunteers to small, local volunteer groups, and intra-organizational factors.

Traditional social movement perspectives contend that leaders use tactics that depend on the history of relationships, relative success of previous encounters, and ideology. Resource mobilization theory specify a number of tactics that are used by movements to interact with the power structure. Choice of tactics are influenced by competition and cooperation (McCarthy and Zald 1977). Middle range theory should address how small local groups accomplish goals and select tactics. The choices of tactics may be influenced because of local focus, local issues, or local networks.

In relation to the larger society, the traditional perspective has emphasized the effect of the social and political environment on social movement organizations. Resource mobilization theory contends that society provides the infrastructure which social movements utilize. Communication and media sources, access to institutional centers, networks, and occupational structures are some of the resources provided by the infrastructure of society that are then utilized by social movements (McCarthy and Zald 1977). Middle range theory should address how a local group taps local networks, which networks are used, types of communication outlets used, and how local power structures are coopted to accomplish the goals of the organization.
Policy Implications

Managers of volunteer organizations must understand why people volunteer, why they stay with an organization, and why they leave. A good manager must enhance the positive aspects of volunteer behavior and minimize the negative aspects. Managers must have an accurate understanding of motivations of the volunteers, as well as those aspects of the volunteer organization that act as either enablers or barriers to participation. For managers to understand and utilize these aspects, operationalization of measures that influence volunteer behavior must be accurate. Specifically, managers of instrumental volunteer organizations should realize that many volunteers are participating for the expressive benefits they desire, as indicated by this research. The initial attraction to the organization could be a result of the organization's instrumental goals, that is, an idealistic purpose. However, members stay in the organization for the personal benefits they receive from participation.

The general public has a limited number of "free time" hours. Managers of volunteer organizations must be able to capitalize on the influences of volunteer behavior. Managers should be capable of enhancing characteristics of the organizations to attract volunteers. Basic demographic information is useful, such as retired persons generally have more discretionary time than those employed full-time. It is also important that a manager utilize information such as desired benefits. Enhancing the positive aspects of volunteer participation will help further
the mission of the organization and further mobilize resources to reach the organization's goal.

Regarding commitment to a volunteer organization, a manager must know how to strengthen commitment and thus retain volunteers. To strengthen commitment, managers must know what it means. Therefore, better measurement of commitment is needed. The three components - focused behavior, side-bets, and affective attachment - should not be disregarded, but rather they should be investigated more thoroughly.

Expressive benefits are part of volunteer participation, even in an organization that is defined as instrumental. These desired benefits must be recognized as a significant influence to commitment, and thus, influence volunteer behavior. Local environmental groups must recognize that participants may be volunteering time and other resources for more reasons than the betterment of a public good. The desire for personal benefits can be utilized by a local volunteer group to organize activities that meet these needs, as well as to further the mission of the group. For example, a local group of park volunteers sponsors a bike ride through the park. The bicyclists pay a registration fee that covers refreshments, maps and emergency service. The bicyclists benefit by the opportunity for physical exercise and socializing with friends. The volunteer group benefits by drawing in visitors to the park and the possibility of making a profit. The volunteer group also has the opportunity to recruit more volunteers who may be interested in maintaining the
bicycle path. The bicyclist may be influenced to give volunteer time to maintain a path that will later benefit the individual.

Managers of volunteer organizations should also recognize the changing demographics of volunteers, i.e., average increasing age, growth of the retired population, decline in full-time homemakers, possible differences in availability of time (and differences between when time is available for professional, service sector, blue collar and other groups of workers), and earlier retirement. Factors that influence volunteer behavior differ for older persons and younger persons. This study indicated that the desired personal benefits were stronger for younger persons than older persons. Education also influenced desired personal benefits - the higher the education level, the less importance were personal benefits.

This dissertation was an exploratory study that attempted to find a measure of commitment and outline how other factors affect commitment. A single dimension measure of commitment was found, rather than the three components theorized in the literature. Commitment is important to volunteer organizations. Commitment of members is the fuel that drives many volunteer organizations. If further research supports the single dimension measure of commitment, the findings would be very important to managers. There are, in all probability, more factors that influence the level of commitment to volunteer organizations than were measured in this dissertation. Although only a few significant relationships were found, it is hoped that this dissertation can be used as a starting point for additional research on the nature of volunteer commitment.
Appendix A
Survey Instrument
Volunteerism: An Important Thread In The Fabric of American Society
Volunteerism is a central thread in the fabric of American society. Volunteerism can be found at all levels, from neighborhood groups to state associations to national organizations. Without volunteers, many of the goals of government, business and the private sector could not be accomplished.

The Ohio Cooperative Extension Service, of The Ohio State University, is conducting a survey to learn more about why people volunteer. You are one of a random sample of volunteers participating in this study. This is why your cooperation is vital to the success of this project. Please help us by answering all items in the following sections. The questionnaire should take no more than 20 minutes to complete.

We guarantee that all of your responses will remain confidential and will only be used to compile group data.

1. In what year did you first join or begin working with this organization? __________(Year)

2. How did you get involved in this organization? Rank the two most important reasons. Write "1" next to the most important reason and "2" next to the second most important reason.

   _ My mother, father, or other family member was involved in this organization.
   _ A friend or acquaintance invited me to join.
   _ Someone in authority over me (e.g. boss) asked me to join.
   _ I received a formal invitation to join.
   _ I read about the organization in the local newspaper or heard about it on television or radio.
   _ I noticed a booth or exhibit at a community event.
   _ Someone presented information at a meeting and invited me to join.
   _ Other (Please describe and rank "1" or "2")________________________

3. Have you been active this past year? _Yes_ No
4. Within the past twelve (12) months, what has been your level of involvement within this organization? Check all that apply.
   _ Performed assigned voluntary task
   _ Attended meetings
   _ Presented at meetings
   _ Worked outside of meetings for this organization
   _ Organized an activity or meeting for this organization
   _ Served as committee member
   _ Served as committee chair/officer/board member
   _ No direct involvement

5. During the past twelve (12) months in approximately how many activities and functions of the organization did you participate?
   _ little or none
   _ about 25% or 1/4 of events
   _ about 50% or 2/4 of events
   _ about 75% or 3/4 of events
   _ all or nearly all

6. Now think about the year before last: in how many activities or functions of the organization did you participate?
   _ little or none
   _ about 25% or 1/4 of events
   _ about 50% or 2/4 of events
   _ about 75% or 3/4 of events
   _ all or nearly all

7. On a scale of 1 to 10, how important are outdoor recreation activities in your life. Use the following scale: zero (0) being "very unimportant", five (5) being "neutral", and 10 being "very important". Circle your answer.

   Not Important | Neutral | Very Important
   -------- ------ | -------- | ----------------
   0 1 2 3 4 5 6 7 8 9 10

   3
Below is a list of possible reasons and benefits for your participation in this organization. For each reason, circle the number that represents A) how important it was when you first became a volunteer and B) how important it is for you now. Circle the appropriate number in both columns.

<table>
<thead>
<tr>
<th>Your Possible Reasons For Volunteering</th>
<th>First Became A Volunteer</th>
<th>As A Volunteer Now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not Important</td>
<td>Very Important</td>
</tr>
<tr>
<td>8. Civic duty to volunteer</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>9. To benefit future generations</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>10. To gain a sense of achievement</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>11. Obligation to give something of myself</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>12. Interested in the work of this organization</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>13. To help my career</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>14. To express my feelings</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>15. Committed to goals of organization</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>16. To gain recognition from my business associates</td>
<td>1 2 3 4 5</td>
<td></td>
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<tr>
<td>Your Possible Reasons For Volunteering</td>
<td>First Became A Volunteer</td>
<td>As A Volunteer Now</td>
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<tr>
<td></td>
<td>Not Important</td>
<td>Very Important</td>
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<tr>
<td>17. An adult member of my family was/is a volunteer</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>18. My child was/is a volunteer</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>19. To associate with influential people</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>20. To keep me in shape physically</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>21. To keep me in shape mentally</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>22. To do something creative</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>23. To feel needed</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>24. To gain recognition in my community</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>25. To meet new people</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>26. To increase business contacts</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>27. To help others</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
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<tr>
<td>Your Possible Reasons For Volunteering</td>
<td>First Became A Volunteer</td>
<td>As A Volunteer Now</td>
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<tr>
<td></td>
<td>Not Important</td>
<td>Very Important</td>
</tr>
<tr>
<td>28. To have fun</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>29. To do something useful</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>30. To gain recognition from others</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>31. To benefit society</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>32. To serve as a role model</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>33. To vary my daily routine</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>34. To make my community a better place to live</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>35. To learn about myself</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>36. To spend more time with family/friends who participate in this organization</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>37. To develop close friendships among other members</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Your Possible Reasons For Volunteering</td>
<td>First Became A Volunteer</td>
<td>As A Volunteer Now</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>Not Important</td>
<td>Very Important</td>
</tr>
<tr>
<td>38. To represent my employer</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>39. To receive information, including publications</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>40. For the challenge to accomplish a task</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>41. To gain new perspectives about life</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>42. To share my skills and knowledge</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>43. To gain job-related skills/experiences</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>44. Encouragement from my employer</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>45. To enhance personal leadership skills</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>
People also find there are problems or difficulties in being a volunteer. Below is a list of possible problems/difficulties which A) you may have experienced when you first became a volunteer or B) experience now as a volunteer. Circle the appropriate number in both columns.

<table>
<thead>
<tr>
<th>Possible Problems/ Difficulties</th>
<th>First Became A Volunteer</th>
<th>As A Volunteer Now</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not A Problem</td>
<td>A Great Problem</td>
</tr>
<tr>
<td>46. Children or others to care for</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>47. Amount of time required to be a member</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>48. Night meetings or activities</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>49. Giving up activities with friends or family</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>50. Not feeling part of the group</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>51. Lack of interest in this organization</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>52. Creates health problems</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>53. Transportation difficulties</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>54. Lack of free time</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>Possible Problems/ Difficulties</td>
<td>First Became A Volunteer</td>
<td>As A Volunteer Now</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>--------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>Not A Problem</td>
<td>A Great Problem</td>
</tr>
<tr>
<td>55. Disappointment with the people I meet</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>56. Disappointment with current goals of organization</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>57. Organization lacks significant accomplishments or progress</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>58. Dollar costs are more than I wish to incur</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>59. Too much effort required for desired participation</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
<tr>
<td>60. Interpersonal conflict with others</td>
<td>1 2 3 4 5</td>
<td>1 2 3 4 5</td>
</tr>
</tbody>
</table>

61. Overall, how would you compare the benefits with the problems/difficulties of being a volunteer in this organization? Use the following scale: one (1) being "many more benefits than difficulties", three (3) being "about equal", and five (5) being "many more difficulties than benefits". Circle your answer.

1 2 3 4 5
62. How many hours, on the average, did you spend in activities of this organization during the past year? Include time spent on committees, general meetings, and projects/assigned activities.

_________ Hours/month

63. To how many other volunteer organizations, including religious, fraternal, political or civic, do you belong? Write in the number:

_________

64. How many hours per month, on the average, do you spend on volunteer activities with these other organizations in question 63?

_________ Hours/month

65. For the purpose of our study, "free time" is defined as when you are not sleeping, working, housekeeping and daily chores, or getting ready for work. During an average week, how much of your time do you consider "free time"?

<table>
<thead>
<tr>
<th>None</th>
<th>31-40 hours</th>
<th>61-70 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10 hours</td>
<td>41-50 hours</td>
<td>71-80 hours</td>
</tr>
<tr>
<td>11-20 hours</td>
<td>51-60 hours</td>
<td>Over 80 hours</td>
</tr>
<tr>
<td>21-30 hours</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As a member/volunteer of the organization mentioned in the cover letter, please respond to following statements based on how much you agree or disagree with each. For example, if you "strongly disagree" with the statement, circle "1". Please mark one answer for each statement.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>66. This organization provides me with a sense of belonging.</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>67. Sometimes, I choose to participate in this organization's functions rather than activities with my family.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Strongly Agree</td>
<td>Strongly Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>------------------</td>
<td>---------</td>
</tr>
<tr>
<td>68. I attend activities of this organization consistently.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>69. Since I have contributed little to this organization, it would be easy to leave.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>70. I am indifferent about being a member of this organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>71. I feel a sense of pride from being a member of this organization.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>72. There are other groups I would belong to if this organization didn't require so much effort</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>73. I can identify/support the reasons for this organization's existence.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>74. Most members feel that what is good for the organization is good for them personally.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>75. My participation in this organization prevents me from developing close personal friendships outside of it.</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Strongly Disagree</td>
<td>Neutral</td>
<td>Strongly Agree</td>
</tr>
<tr>
<td>---</td>
<td>------------------</td>
<td>---------</td>
<td>----------------</td>
</tr>
<tr>
<td>76. I have so much invested in this organization, it would be difficult for me to leave.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>77. I prefer to participate in this organization rather than other activities.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>78. Participation in this organization gives me little sense of achievement.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>79. Being identified with this organization by other people is important to me.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>80. I feel most members are committed to this organization’s goals.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>81. I can see the results of my efforts through what I do for this organization.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>82. Rather than being with other friends, sometimes I choose this organization’s functions.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>83. This organization limits other opportunities for self-enhancement.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>84. I have developed so many friendships in this organization, it would be difficult to leave.</td>
<td>1 2 3 4 5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Considering the importance of natural resources/environment to this organization, how would you respond to the following statements. Please circle the appropriate response.

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Neutral</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>85. I would be willing to make personal sacrifices for the sake of slowing down pollution even though the immediate results may not seem significant.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>86. Pollution is not personally affecting me.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>87. The benefits of modern consumer products are more important than the pollution that results from their production and use.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>88. Courses focusing on the wise use of natural resources should be taught in public schools.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>89. Although there is continued contamination of our lakes, streams, and air, nature’s purifying processes soon return them to normal.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
<tr>
<td>90. Industry is trying its best to develop effective anti-pollution technology.</td>
<td>1 2 3 4 5</td>
<td></td>
</tr>
</tbody>
</table>
Please tell us something about yourself.

91. In what year were you born? ________

92. Your gender: 1. Female
               2. Male

93. What is your net family income from all sources in 1990? (Please remember that this information is confidential and that your name is not on this survey. Check only one that applies.)

<table>
<thead>
<tr>
<th>Income Range</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $20,000</td>
<td></td>
</tr>
<tr>
<td>$20,001-30,000</td>
<td></td>
</tr>
<tr>
<td>30,001-40,000</td>
<td></td>
</tr>
<tr>
<td>40,001-50,000</td>
<td></td>
</tr>
<tr>
<td>$50,001-60,000</td>
<td></td>
</tr>
<tr>
<td>60,001-75,000</td>
<td></td>
</tr>
<tr>
<td>75,001-100,000</td>
<td></td>
</tr>
<tr>
<td>Over $100,001</td>
<td></td>
</tr>
</tbody>
</table>

94. Please circle your highest level of education.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Elementary</th>
<th>Post Graduate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than</td>
<td>8 9 10 11</td>
<td>12 13 14 15 16</td>
</tr>
</tbody>
</table>

95. Are you presently: (Check one that applies.)

<table>
<thead>
<tr>
<th>Employment Status</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed full-time</td>
<td>Full-time homemaker</td>
</tr>
<tr>
<td>Employed part-time</td>
<td>Unemployed</td>
</tr>
<tr>
<td>Self-employed</td>
<td>Retired</td>
</tr>
</tbody>
</table>

96. If employed outside the home, please check the category that best describes your present job.

<table>
<thead>
<tr>
<th>Job Category</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled crafts/tradesperson</td>
<td>Clerical/Sales</td>
</tr>
<tr>
<td>Non-farm self employed</td>
<td>Technical</td>
</tr>
<tr>
<td>Professional</td>
<td>Farm self-employed</td>
</tr>
<tr>
<td>Manager/Administration</td>
<td>Student</td>
</tr>
<tr>
<td>Laborer</td>
<td>Other (please specify)</td>
</tr>
</tbody>
</table>
97. Which of the following best describes your racial or ethnic identification?
   ___ Asian or Pacific Islander   ___ Native American
   ___ Black                     ___ White, not Hispanic origin
   ___ Hispanic                  ___ Other (please specify)

98. How long have you lived in your community? (Check the one that applies.)
   ___ Less than 2 years   ___ 6-10 years
   ___ 2-5 years           ___ 11 or more years

99. Write in the number of people in your household (including yourself) who are in each of the following age groups.
   Less than 6 ________________ 41-60 years ________________
   6-12 years ________________ 61-70 years ________________
   13-18 years ________________ 71-80 years ________________
   19-40 years ________________ Over 80 years ________________

100. What is your current marital status? (Check the one that applies.)
    ___ Never Married    ___ Separated or Divorced
    ___ Married          ___ Widowed

Any additional comments:

Your contribution to this effort is appreciated. A summary of the results can be obtained from our office if you desire. Only if you want a copy of the results, please fill in the following information:
Name_______________________________
Address_____________________________

Thank you for your time!
Appendix B
Sample Cover Letter
March 25, 1991

Dear Franklin County Metropolitan Park District Volunteer,

Volunteering is an important activity in the lives of many people, like you. Yet we know little about some of the important values and activities people associate with volunteering for the Franklin County Metropolitan Park District.

You are one of a select number in a random sample who are being asked to give information and opinions about why you volunteer. In order for the results to truly represent the thinking of the Franklin County Metropolitan Park District and similar organizations, it is important that you complete and return this questionnaire in the envelope provided. We ask that you return it to our office by April 1, 1991.

You may be assured of absolute confidentiality. The questionnaire has a control number so that we may check off your number from the mailing list when it is returned. Your name will never be placed on the questionnaire.

This information is important in understanding why people volunteer. We will be pleased to answer any question you might have. If you would like a copy of the report, fill out the form on the last page of the survey. This form will be detached from the questionnaire before data analysis begins. Thank you for your assistance in this research.

Sincerely,

Gregory Passewitz  
Assistant Professor  
Leader, Natural Resources  
Ohio Cooperative Extension Service  
The Ohio State University

Sereana Howard  
Graduate Extension Associate  
Ohio Cooperative Extension Service  
The Ohio State University

OCES  
The Ohio State University, The United States Department of Agriculture, and County Commissioners Cooperating
Appendix C
Second Cover Letter
May 2, 1991

Dear Franklin County Metropolitan Park District Volunteer,

About a month ago we wrote to you as a part of our study seeking information on volunteering for the Franklin County Metropolitan Park District. Our records indicate we have not yet received your response. If you have completed the questionnaire, thank you very much. If you have not completed the survey, we again ask for your help.

We cannot emphasize enough the importance of your participation. You are one of a select number in a random sample who are being asked to give information and opinions about why you became a member/volunteer. This information is important in understanding why people join and volunteer.

In the event your questionnaire has been misplaced, a replacement is enclosed. Please take some time today but not later that May 15, to fill out and return the questionnaire. Use the enclosed self-addressed envelope to return the survey to our office. Your response will kept confidential and will contribute greatly to our understanding of why people join and volunteer.

Sincerely,

Gregory Passewitz
Assistant Professor
Leader, Small Business
and Natural Resources

Sereana Howard
Graduate Extension
Associate

The Ohio State University. The United States Department of Agriculture. and County Commissioners Cooperating
Appendix D
Panel of Experts
Panel of Experts

Dr. Emmalou Norland
Department of Agricultural Education

Dr. R. Dale Safrit
Department of Agricultural Education

Dr. Joseph Donnermeyer
Department of Agricultural Economics and Rural Sociology

Dr. Neil Andrew
School of Natural Resources
Appendix E
Orthogonal Rotation
Table 3.7
Orthogonal Factor Analysis

<table>
<thead>
<tr>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have developed so many friendships in this organization, it would be difficult to leave (V153).</td>
<td>.76487</td>
<td>.09757</td>
<td>.10456</td>
</tr>
<tr>
<td>I have so much invested in this organization it would be difficult for me to leave (V145).</td>
<td>.67937</td>
<td>.07752</td>
<td>.06779</td>
</tr>
<tr>
<td>I attend activities of this organization consistently (V137).</td>
<td>.61838</td>
<td>.13859</td>
<td>.04137</td>
</tr>
<tr>
<td>Since I contributed little to this organization, it would be easy to leave (V138).</td>
<td>.58751</td>
<td>.49313</td>
<td>.00855</td>
</tr>
<tr>
<td>This organization provides me with a sense of belonging (V135).</td>
<td>.58705</td>
<td>.15627</td>
<td>.32073</td>
</tr>
<tr>
<td>I can see the results of my efforts through what I do for this organization (V150).</td>
<td>.50980</td>
<td>.23047</td>
<td>.38787</td>
</tr>
<tr>
<td>Being identified with this organization by other people is important to me (V148).</td>
<td>.39607</td>
<td>.10992</td>
<td>.38616</td>
</tr>
<tr>
<td>My participation in this organization prevents me from developing close personal friendships outside of it (V144).</td>
<td>.09399</td>
<td>.79381</td>
<td>.10225</td>
</tr>
<tr>
<td>I am indifferent about being a member of this organization (V139).</td>
<td>.37045</td>
<td>.67786</td>
<td>.00080</td>
</tr>
<tr>
<td>There are other groups I would belong to if this organization didn’t require so much effort (V141).</td>
<td>.08123</td>
<td>.48452</td>
<td>.22253</td>
</tr>
<tr>
<td>Participation in this organization gives me little sense of achievement (V147).</td>
<td>.30605</td>
<td>.34928</td>
<td>.24331</td>
</tr>
<tr>
<td>I feel a sense of pride from being a member of this organization (V140).</td>
<td>.15278</td>
<td>.04119</td>
<td>.77883</td>
</tr>
</tbody>
</table>
Table 3.7 (con't.)
Orthogonal Factor Analysis

<table>
<thead>
<tr>
<th>I can identify/support the reasons for this organization's existence (V142).</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>.09538</td>
<td>.20374</td>
<td>.72197</td>
<td>.07570</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sometimes, I choose to participate in this organization's functions rather than activities with my family (V136).</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>.06740</td>
<td>.02869</td>
<td>.09078</td>
<td>.85102</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rather than being with other friends, sometimes I choose this organization's functions (V151).</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>.30226</td>
<td>.01201</td>
<td>.12196</td>
<td>.71799</td>
<td></td>
</tr>
</tbody>
</table>
Appendix F
Significant Path Analysis
Figure 4.2 Significant Path Relationships

- Age
- Gender
- Income
- Education
- Commitment
- Expressive Benefits
- Environmental Concern
- Outdoor Recreation
- Affective Attachment
- Focused Behavior
- Side bets

Significant correlations:

- Age: -.129 (P < .05)
- Gender: .338 (P < .001)
- Income: .124 (P < .05)
- Education: .124 (P < .05)
- Commitment: .154 (P < .05)
- Expressive Benefits: .202 (P < .001)
- Environmental Concern: -.185 (P < .01)
- Outdoor Recreation: -.141 (P < .05)
- Focused Behavior: -.173 (P < .01)
- Side bets: -.185 (P < .01)
BIBLIOGRAPHY


Gale, R.P. (1972). From sit-in to hike-in: a comparison of the civil rights and environmental movements. In Burch, Cheek and Taylor (eds.) Social Be-


McGee, WJ. (1909). The conservation of natural resources. Proceedings of the Mississippi Valley Historical Association III.


