College of Business

Arkansas State University

EFFECTS OF LIMITED ACCESS HIGHWAYS ON OUTDOOR RECREATION IN ARKANSAS

Prepared For

ARKANSAS STATE HIGHWAY & TRANSPORTATION DEPARTMENT

In cooperation with

FEDERAL HIGHWAY ADMINISTRATION

Principal Investigator: Dr. John Kaminarides

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This study was conducted in cooperation with the U. S. Department of Transportation and Federal Highway Administration.

16. Abstract The basic objective of the study was to determine the effects of limited access highways on outdoor recreation in Arkansas in order to provide useful information for the establishment of priorities in the construction and development of limited access highways. The research was directed, first, to provide a general overview of traveler attitudes toward interstate-freeway type highways. Second, the evaluation centered upon determining traveler attitudes concerning the relative importance of access and of the area itself in site selection. Third, an effort was made to evaluate the importance of selected highway characteristics upon route selection. Fourth, the study attempted to provide a comparison of various types of outdoor recreation as to attitudes, trip characteristics, and demographic characteristics. Fifth, the attitudes and characteristics of persons interviewed in areas near and far from existing interstates were compared. Finally, an evaluation was made of the outdoor recreationists' attitudes toward economic development in recreation areas.

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CHAPTER I: INTRODUCTION

The purpose of this study is to evaluate the effects of limited access highways upon outdoor recreation in Arkansas. The statement of purpose is provided as an introduction to the study. Also set forth in this section are the objectives and hypotheses which basically aim at providing useful information for the establishment of priorities in the construction and development of limited access highways.

1.1 Statement of Purpose of Study

Adequate highway transportation has long been recognized as a vital factor in the economic development of a region. Improvements in the highway system of a region usually contribute substantially to economic growth through increased employment, incomes and other recreation trade. The proximity of the state to urban areas such as Memphis, St. Louis, Dallas, Kansas City, and Tulsa suggests continued economic growth through tourism since a large portion of Northern and Western Arkansas possesses an environment attractive to outdoor recreationists.

Recreational travel is a major income-producing activity in the State of Arkansas. Its fast growth in recent years makes it imperative that planning be implemented to insure orderly and responsible development in the industry. Since the automobile is the principal mode of transportation for recreational travel, it is important that our highway system take into consideration this traveler when plans are made for the future. Good highways are especially valuable to the outdoor recreation industry in the state.

The nature of the resources which Arkansas has in ample supply--mountains, streams, lakes, forests, etc.--lend themselves to outdoor recreational use. An increasing number of people are participating in

outdoor recreational activities such as camping, hiking, backpacking, picnicing, sightseeing, hunting, fishing, boating and other water-related sports. Recreational use may represent the highest and best use for many of these resources. Balanced development of outdoor recreational facilities and the highway system is important in order for these facilities to be effectively utilized.

The tourist industry is ranked as the third most important industry in Arkansas, and is growing at an accelerated rate. Tyler Hardeman of the Arkansas Department of Parks and Tourism described tourism as the "Sleeping Giant" of the Arkansas economy. In another statement, R. E. L. Wilson, Chairman of the National Advisory Board, said:

> The State of Arkansas needs growth. The three most important opportunities are the industries of agriculture, manufacturing, and tourism . . . Agricultural growth is steady and continuous. Manufacturing has made great strides in recent years, but, unfortunately, has presently reached an almost "no growth" posture . . . This leaves our third major industry, tourism . . . our best achievable opportunity."

While outdoor recreation is not the only consideration to be weighed in construction of highways, it is indeed a major one. An improved road network could have a beneficial effect on the future growth of outdoor recreation and consequently improve Arkansas' economy. It is, therefore, the intention of this research to determine and evaluate the general impact of limited access highways on outdoor recreation in Arkansas.

1.2 Objectives and Hypotheses

The objective of this study is to determine the effects of limited access highways on outdoor recreation in Arkansas and provide useful information for the establishment of priorities in the construction and development of limited access highways. This information will also be extremely

useful to the Arkansas Highway and Transportation Department in justifying budget requests for additional construction funds.

The specific objectives of this study include:

1. To provide a general overview of traveler attitudes which relate to interstate-freeway type highways.

2. To determine traveler attitudes concerning the relative importance of access and of the area itself in site selection.

3. To determine the importance of selected highway characteristics in route selection.

4. To compare various types of outdoor recreation as to attitude, trip characteristics, and demographic characteristics.

5. To compare attitudes and characteristics of persons interviewed near and far from existing interstates.

6. To evaluate the outdoor recreationist's attitude toward economic development in recreation areas.

The achievement of the overall objectives will result in benefits in terms of:

1. Determining the effect of limited access highways on outdoor recreation.

2. Increasing the efficiency of city, county and state officials in allocating funds for road improvements.

3. Developing directions for further economic development plans for Arkansas.

4. Providing information for tourist-related organizations considering locating in the state.

It is expected that through the survey approach used in this study to develop the travel behavior patterns of outdoor recreationists. An evaluation of these travel behavior patterns will provide a number of beneficial relationships that will assist the Arkansas Highway and Transportation Department in its policy-making decisions.

CHAPTER II. REVIEW OF THE LITERATURE

This section attempts to view briefly the current status of knowledge concerning outdoor recreation. Major consideration is given to literature concerned with the characteristic features of the participants in outdoor recreation, the economic impact of recreation on a region, and the demand for outdoor recreation in a region. First, several general facets of outdoor recreation are emphasized.

In order fully to comprehend the many aspects and implications of outdoor recreation demand, Copp[1] contends that several different perspectives should be given full consideration. Copp views outdoor recreation from five interdependent theoretical perspectives; economic, motivational, demographic, sociological, and social psychological. They each have a contribution to make in explaining and in predicting the demand for outdoor recreation.

From an economic standpoint, outdoor recreation is viewed as one of many types of consumer goods competing with each other in the market place. However, in addition to money costs, recreation, like other leisure activities, involves a hidden cost in terms of time foregone. Thus, consumers of outdoor recreation must allocate scarce money and limited time among various alternatives with an eye to maximizing the level of their satisfactions. It must be recognized that leisure activities like other goods are substitutable. For example, a shorter work week may mean more television watching which, just as outdoor recreation, will absorb income and time.

As for the motivational theories for recreation, tension release has been presented as the explanation, but the part it explains is minimal. It may be that the demand for specific forms of outdoor recreation is governed

by the environment in which the individual works and lives. As work becomes more routinized, people may turn to leisure time activities not only for release from tension, but also for their self-realization and establishment of identity.

The demographic perspective profides a basis for estimating the potential number of users. Copp points out that, surprisingly, knowledge of our present population structure and trends has been used very little in explaining present levels of leisure time participation in outdoor recreation.

Participation in outdoor recreation is linked with the social structure in that leisure pursuits tend to reflect the goals and norms by which a society is guided. Consequently, the type and extent of leisure a society of people engage in tell a great deal about the nature of that society.

Lastly, following Copp, practically all outdoor recreation occurs in groups of two or more people, making it a small group or social psychological phenomenon. Factors which affect these social groups have implications for recreation demand.

Currently, one of the fastest growing activities in America is outdoor recreation. One source notes that the principal factors accounting for this growth are as follows:

> (1) Population has nearly doubled during the last fifty years . . . (2) Incomes too have about doubled over this same period . . . (3) Leisure time . . . has increased. (4) Mobility has increased tremendously over the past fifty years, mostly because of the family automobile. (5) The increase in the proportion of the population in the younger pre-work age brackets and in the older retired brackets . . .[2]

These factors can be shown to be associated with a rise of only some 6 percent, leaving about 4 percent of the nearly 10 percent post war rise in demand "unexplained".

This lack of understanding as to which combination of factors caused the growing interest in outdoor recreation makes it difficult to make future projections as to the demand for outdoor recreational activity or to set forth guide lines for private and public enterprisers as to type and extent of facilities needed.

Further complicating the matter is the fact that participation varies a great deal among the types of recreation activities, and that there are regional differences in personal preferences. Studies by Johnson and others indicate that suburbanites indulge in a greater variety and amount of outdoor recreation than do residents of city centers or the open country. Johnson[3] suggests that the current "return to nature" emphasis may be a temporary phenomenon resulting from a rapid urbanization of rural people. As this trait disappears, there may be major shifts in the demand for outdoor recreation.

The report of the Outdoor Recreation Resources Review Commission[4] shows that age, income, education, occupation, and place of residence have significant effects on the amounts and types of outdoor recreation in which people participate. Reid[5] reported that interest in camping, fishing, and boating was found to continue at a high level until late in life. Also, boating and camping are participated in most often by persons from higher income families; whereas, fishing is participated in most by families with incomes in the middle income range. It is suggested that education has a comparable influence to income in determining participation in these three activities. As for occupation, people not in the labor force and those with paid vacations had higher rates of participation. The data on place of residence show that persons living in suburban areas participate to a greater degree in fishing and camping than city residents. People in more rural areas,

however, do more fishing and about the same amount of camping as the suburbanites.

Tharp observes, in an interpretation of statistics in the Outdoor Recreation for America report, that the most popular activities are those in which barriers to participation are at a minimum. Fewer people engage in those activities that require more physical effort and skill than those requiring specialized facilities. Water sports, however, ranked high on the list of activities. The limiting factors causing people to engage in fewer outdoor recreational activities than they desired included: lack of time, lack of money, and lack of facilities.[6]

The major recreation demand is in densely populated areas, and people want recreation opportunities to be close to where they live. Tharp concludes that in spite of the large amount of plans for recreation facilities in rural areas, the greatest increase in demand will probably fall on the urban and suburban areas. Since the largest demand comes from children and young people, the facilities must be close at hand. An indirect benefit of filling this demand is that idleness and inactivity lead to social unrest and crime.[7]

From a review of the literature concerning characteristics of participants in outdoor recreation, one gets the impression that diversity of recreation demands are to be expected depending upon such matters as degree of urbanization of a region, types of outdoor recreation available to potential participants. As a consequence, it seems that if any meaningful assessment is to be made regarding characteristics of participants, it must be made by studies in particular types of areas and of particular types of outdoor recreation.

The local economic impact of recreation spending is increasingly becoming a matter of interest in that to the extent that non-resident consumers buy goods and services in the area, additional income is injected into the local economy. A recognition of this has given rise to many contending that recreation can be used effectively as an economic support of depressed rural areas. The hope is that large recreation use will bring a substantial improvement in the economic well-being of the area.[8]

According to Knetsch, the economic impact of recreation expenditures on an area are as follows:

> (1) . . . by no means all the total expenditures made by recreationists take place in the communities located in proximity to recreation areas. (2) . . . the type of expenditures that are made in these communities are of a rather specific kind . . . food, lodging, and automobile services comprise a large bulk of the expenditure items. (3) There is a variation in the type of expenditures that take place in local areas depending upon the type of recreation developed and upon its location with respect to population. (4) . . . total expenditures are not all net income to the region.[9]

The original expenditure of money in an area develops expenditure patterns based on the recipients' propensity to consume. This multiplier process means that the more self-contained the local economy is and the smaller the proportion of expenditures calling for imports into the area, the greater will be the impact on the local community. Knowledge of the magnitude of the multiplier as applied to various types of recreational activities is fairly limited.

Clawson[10] evaluates two common concepts which are often applied to discussions of the impact of outdoor recreation. In the first place, he discusses the gross volume of business resulting from outdoor recreation. The major limitations upon this concept include the considerable error of estimate and the obvious point that not all of the reported expenditure is

new or additional expenditure. Some of it may be merely shifted from one thing to another with no net effect on the local economy. The point is that people may simply substitute rather than bring additional income flows into an area. Also, the full effect of the expenditure is not necessarily felt in the area where the outdoor recreation opportunity lies.

Second, Clawson takes into consideration the "value added" by local business in the estimated gross expenditure. This is an approach which would at least localize the impact of the gross expenditures made on the local economy by those seeking outdoor recreation. Value added by the recreation industry then could be compared with value added by other industries or by alternative uses of the same resources. But, a problem of using "value added" is that it does not deal directly with the value of the recreation opportunity as such. The point is that the expenditures made are spent for the provision of services connected with the use of the recreational opportunity and not for the development of the recreational opportunity itself.

According to Brockman, an evaluation of the economic impact of recreational areas serves a variety of purposes:

> (1) It provides a picture of the importance of such areas in the economic structure of a given area. (2) It aids in the solution of land-use problems. (3) It aids in determining the desired size of recreational facilities or services and aid in evaluating proposed developments. (4) Economic evaluations aid administrators of public recreational areas in obtaining adequate financial support for their operations.[11]

Baum and Moore point out that in order for a rural area to develop, change is essential. There must be a willingness to adapt to the requirements of economic growth, and to shed out-dated thinking. The alternatives from which an area must choose are logically limited to those in line with their particular situation. A suggested alternative for rural areas with

no real possibility of industrial development is that development of outdoor recreation will provide the local labor force more jobs and higher incomes.[12] This has been true to some extent in the Ozarks, as indicated by the Copeland study.[13]

Since different areas can be expected to grow in outdoor recreation use at different rates, it is important to recognize factors which will influence this growth. Landsberg and others list some growth-limiting factors as follows:

> . . . The amount of time that will be available for using outdoor recreation areas . . .; the number of recreation sites of high or desired quality; the amount of investment in the development, improvement, and maintenance of recreation sites; the degree to which other kinds of recreation may be substituted . . .; the kinds of policies that are pursued with regard to entrance fees, rationing, etc.[14]

Tharp states that in view of the rapid rise in demand for recreation, Arkansas has an excellent opportunity to "cash in", but more than land and water resources are needed. He states that also essential are: skilled management, adequate capital investments, and community initiative, planning and action.[15]

Clawson presents some disquieting considerations concerning the notion that an area, having no other asset, may be assumed to have recreational value. First, no one may want to go to an area even if it has recreation potential if it is located in an inaccessible place for recreation seekers. Second, even if many recreation seekers can be attracted, this is not certain proof that it will be economically feasible to develop it as a recreation area. Clawson contends that the economic impact of recreation spending tends to be widely dispersed geographically and the "value added" in the remote recreation area may be very small. Finally, the residents of a depressed area probably do not have the managerial skills nor the financial means to exploit any advantages which might exist.[16]

Johnson points out that there is a need to break down over-all estimates of the recreational demand into specific activities, groups or associations of activities, types of users, and physical requirements. The implication is that much can be contributed to a better understanding of the economic impact of recreation by analyzing the sub-classifications of recreation participants, such as campers and boaters, and by studying the effects on the employment and incomes of the people located in the area. The type of data needed concerns demand for certain activities, or groups of activities, in a specific area.[17]

Another matter to be considered is that income-producing private recreational enterprises require a different kind of economic analysis from that needed to justify development of programs for public recreation areas. The expense of public facilities is borne by the taxpayer, and though wrong guesses result in misallocation of public funds, no one individually sustains any large financial loss. On the other hand, a wrong guess by a private enterpriser may result in financial disaster. The private enterpriser must be able to calculate fairly accurately the potential returns and costs so as to determine if a reasonable profit potential exists which will compensate for the risks and uncertainty involved. This is not to say that it is all right for public enterprise to be wasteful while private enterprise must avoid waste. Though the latter is true, public facilities may be justified on the basis of social benefits being larger than social costs even though the market does not reflect all benefits and costs involved.[18]

From this review of the literature concerning economic impact of outdoor recreation, one gets the impression that there is a considerable debate going on with regard to whether outdoor recreation can be used

effectively as a generator of jobs and higher incomes for a local labor force in a depressed rural area. It is pointed out that the impact is not the full amount of the expenditures by recreation participants, but rather the portion of the "value added" within the area where expenditures occur. A need is indicated for more study of this matter with emphasis upon the specific impact of certain types of outdoor recreation at a given recreation area.

Hugh Johnson says that demand for recreational opportunities in the out-of-doors has increased faster than the ability of suppliers to provide the needed facilities and services because of six deficiencies:

> (1) . . . inability to accurately identify recreation needs. (2) . . . inability to forecast recreation trends. (3) . . . inability to secure adequate financing--public and private. (4) . . . lack of knowledge of the significance of recreation. (5) . . . inability to articulate the need for recreation. (6) . . . lack of administrative, policy-making, managerial, and leadership competencies in recreation.[19]

Johnson points out that one of the most obvious needs is to find ways to locate more recreation within the reach of more people. Thus, perhaps the greatest need is for facilities and services within urban and suburban areas.

A major problem in measuring people's "real" demand for recreation is in determining what people really want. This may vary markedly from what they say they want. Experiences tend to determine the recreation participant's interests and preferences, and this, along with his knowledge of existing opportunities, significantly affect his choices. We may have to study recreation participants more as complex individuals, often irrational, changeable, and difficult to understand, than to use the usual tools of economic analysis such as time-distance factors, theories of substitution, etc.[20]

Knetsch points out that the state of data on outdoor recreation is that it is either nonexistent or terrible. He cites as an example the Corps of Engineers and their data program which does not provide the types of data needed in careful economic analysis which contributes to good decision-making. Knetsch suggests that the major types of research needed in order to deal effectively with questions of recreation include:

> market studies; demand studies; studies of pricing and the appropriateness of fees and charges . . .; problems of private recreation areas; local economic impact of recreation expenditures; and benefit-cost or investment criteria for recreation investments.[21]

Knetsch argues the danger of simply extending past trends in the use of recreation areas or using activity-days engaged in by various population groups. Such projections are not ones of demand but rather are projections of consumption. Recreation consumption for a given region is a function of both supply and demand. This must be clearly recognized, for, if it is not, then a great chance of imbalance in resource use may occur. This is to say that a high participation rate in Arkansas in fishing may result in the planning of more fishing lakes in the state without realizing that the reason for such high participation was the great abundance of lakes already present. The attraction of fishing enthusiasts may be a function of both supply and demand.

Crawford[22] makes the point that even though participants in outdoor recreation usually have a primary purpose, they are really consumers with a joint demand for various types of outdoor recreation. However, the extent of joint demand was found to vary among the various classifications of primary recreational purpose. For example, over 80 percent of campers had joint demand for various types of outdoor recreation, while only slightly over 30 percent of fishermen did.

In the literature review it is suggested that the demand for outdoor recreation is a function of such independent variables as: income, leisure time, mobility, age, availability of facilities, and distance from a recreation facility. It is also suggested that there is a deficiency of data necessary for the analysis of recreation demand. Recreation facilities have traditionally been supplied by the public sector at little or no direct charge to the user. Consequently, the public has come to view outdoor recreation as free except for the expenditures incurred in getting to and from areas containing facilities. These costs, which include food, lodging, transportation, entertainment, etc., are the "price" the recreation seeker pays for some "quantity" of outdoor recreation activity.

A great deal of research has been done to try to estimate the demand for recreation in a given region of the country. However, very little research has been done to specifically relate tourism to travel on limited access highways.

Clawson[23] is generally accepted as the pioneer in estimating the demand for recreation by looking at "transfer costs" and "participation rates". Cesario and Knetsch[24] pointed out some methodological problems associated with Clawson's work. They stated that there is a high correlation between increased distance and increased travel time which tends to underestimate the demand for a particular type of outdoor recreation at a particular point in time. Thus, it appears that many of the early models have been poorly specified.

An attempt to separate monetary from time costs was made in the 1964 Oregon Salmon-Steelhead study where days of fishing were expressed as a function of transfer costs, family income, and average distance traveled. The standard error for the distance traveled variable was quite high and

the estimates were unreliable. Another study in Oregon[25] was made to study the demand for big game hunting. Distance traveled, hunting success, years of hunting experience, and incomes were all used in a multiple regression model. The R squared value was quite low for the overall model and interstate travel was not directly considered. A summary of the Oregon findings[26] states that aggregating data tends to cause multicollinearity and difficulty in estimating the parameters of recreation demand functions.

McConnell[27] analyzed the demand for outdoor recreation and came to two main conclusions. First of all, he decided that the appropriate time variable in the demand for outdoor recreation is the value of the total time consumed by the recreation activity rather than simply the time spent in transit. He also decided that the unit of measurement consistent with the travel cost method is the trip or visit and not user days.

Gum and Martin[28] conducted a large scale empirical study of outdoor recreation activities in Arizona. The number of household trips, the cost per trip and the total revenue generated for Arizona was estimated. The methodology for estimating the demand for recreation was improved. However, the study did not deal directly with travel and tourism.

A study of travel and tourism in Arkansas was completed in 1976 by Troutman and Opitz with the Industrial Research and Extension Center for the University of Arkansas at Little Rock.[29] The most important sources of data were the Quintennical censuses of business conducted by the U. S. Bureau of the Census. Other sources were: (1) the Bureau of Economic Analysis, U. S. Department of Commerce, (2) the U. S. Corps of Engineers, (3) the Arkansas Highway Department, (4) the Arkansas Game and Fish Commission, and (5) the Travel Data Center, Washington, D.C. The Arkansas study showed the travel industry to be of minor importance in terms of total

personal income for the state. However, the travel industry does bring outside income and tax revenues into the state. The state receives one-third of its gasoline tax revenues from people engaged in tourism.

Although a great deal has been written on the subject of outdoor recreation, much of it has emphasized aggregate recreation demand. There has not been very much done concerning the effect of limited access highways upon outdoor recreation. The purpose of this study is to help fill that void with particular emphasis upon the specific effects of highways upon recreation in Arkansas.

CHAPTER III: ANALYTICAL APPROACH

The analytical approach followed in this study was based on a survey technique. A number of outdoor recreational sites were selected for this study. The data collected through the survey was used to evaluate the objectives explained in Chapter I. The approach used in the selection of sites, the procedures followed to distribute the questionnaires and the time at which the survey was conducted are explained in this chapter.

3.1 Site Selection for Outdoor Recreational Travel Study

In selection of sites for distribution of the questionnaire, it was felt that accessibility by interstate-freeway type road was of primary concern. A site readily accessible by interstate-freeway was first selected, then a site with comparable facilities was selected which was remote to the interstate-freeway type highway. Sites were widely distributed so that all the interstate-freeway type routes in the state would be included in the survey. This pairing of readily accessible and remote sites used in the study was continued if possible throughout the Arkansas State Parks, the National Parks, the National Forests, the Corps of Engineer Projects, the Wildlife Refuges, and the Arkansas Game and Fish Commission Areas.

For a geographical location of the sites, see accompanying map. Exhibit 1 shows the names and types of sites surveyed; the geographical location in the state; whether they are near to interstate; and the number of questionnaires given at each site.

3.2 Distribution of Questionnaires

Upon arrival of the interviewers at each site to be surveyed, permission was secured to distribute questionnaires. Superintendents were helpful in

EXHIBIT 1

QUESTIONNAIRE DISTRIBUTION SITES

Code*	Site	Area of State	Near to Interstate	Questionnaires Returned 1977	1978	Total
	STATE PARKS					
10112	DeGray	SW	I-30		50	50
11209	Bull Shoals	NE		30	34	64
12209	Crowley's Ridge	NE		36	43	79
13112	Lake Catherine	SW	I-30	49	53	102
14209	Lake Charles	NE		16	59	75
15205	Moro Bay	SE		10	35	45
16208	Queen Wilhelmina	WC		46	56	102
17109	Village Creek	NE	I-40	8	52	60
18109	White Oak Lake	SW	I-30	16	22	38
19208	Withrow Springs	NW		34	18	52
	NATIONAL PARKS					
21208	Buffalo River	NW		41	35	76
22109	Hot Springs	SW	I-30	87	66	153
	NATIONAL FORESTS					
31209	Bear Creek Lake	SE			37	37
32207	Blanchard Springs	NC		51	82	133
33207	Cove Lake	NW		34	37	71
34107	Horsehead Lake	NW	I-40	7	25	32
	CORPS OF ENGINEERS PROJECTS					
41209	Bull Shoals Lake	NE		112	97	209
42109	DeGray Lake	SW	I-30	52	52	104
	WILD LIFE REFUGE					
51205	White River	SE		40	84	124
	PRIMITIVE CAMPING AREAS					
61105	Wattensaw Management Area	EC	I-40		87	87
62105	Lake Conway Area	C	I-40		32	32
63205	Hurricane Lake	NE			25	25
				669	1,081	1,750

*The code used in this table reads as follows:

51205
- 5 = Type of Site
  - 1 = State Parks
  - 2 = National Parks
  - 3 = National Forests
  - 4 = Corps of Engineers Projects
  - 5 = Wild Life Refuges
  - 6 = Primitive Camping Areas
- 1 = Sequence within Type of Site (As Listed in This Table)
- 2 = Nearness to Interstate
  - 1 = Near
  - 2 = Far
- 05 = No. of Facilities

Source: Survey conducted by the Authors.

pointing the way to where people were concentrated. Attempts were made to contact users of several facilities in each of the different recreational areas at the site rather than concentrate on one recreational use. At some sites users seemed to be concentrated in some areas such as a campground, but the questionnaires revealed often times their use of the other available facilities at the site. If they were contacted first at a campground and later at a swimming or boat launching area, the user was permitted to fill out only one questionnaire.

The distribution of questionnaires during the Summer of 1977 started on July 20 at Lake Charles State Park and was concluded on August 28 at Crowley's Ridge State Park. The entire survey was conducted utilizing personal interview as the technique for questionnaire distribution. It is noteworthy that no one contacted refused to provide the information desired.

Distribution of questionnaires at the White River National Wildlife Refuge took place during the 1977 fall hunting season. Data at Lake Conway and Hurricane Lake were collected during the Summer of 1978 and Wattensaw was surveyed during the 1978 fall hunting season. All of the original sites except White River National Wildlife Refuge were visited again between May 23 and July 3, 1978.

3.3 Explanation of the Survey Area

The Arkansas State Parks selected for questionnaire distribution and their locations are shown herebelow:

Bull Shoals - From Mountain Home, 6 miles NW on Highway 5, 6 miles W on Highway 178.

Crowley's Ridge - From Paragould, 10 miles W on Highway 25, 2 miles S on Highway 141.

DeGray - From Arkadelphia, 10 miles N on Highway 7.

Lake Catherine - From Malvern, 2 miles N on U. S. 270, 12 miles NW on Highway 171.

Lake Charles - From Hoxie, 8 miles NW on U. S. 63, 2 miles S on Highway 25.

Moro Bay - From El Dorado, 20 miles NE on Highway 15.

Queen Wilhelmina - From Mena, 13 miles NW on Highway 88.

Village Creek - From I-40 at Forrest City, 12 miles N on Highway 284.

White Oak Lake - From Prescott, 20 miles E on Highway 24, 2 miles S on Highway 387.

Withrow Springs - From Huntsville, 6 miles N on Highway 23.

The National Parks or Rivers selected for questionnaire distribution and their locations are shown herebelow:

Hot Springs National Park - Gulpha Gorge Campground - From Hot Springs, 2 miles NE on U. S. 70B.

Buffalo National River (Buffalo Point) - From Yellville, 17 miles S on Highway 14, 3 miles E on Highway 268.

The National Forest Recreational Areas selected for questionnaire distribution and their locations are shown herebelow:

Bear Creek Lake - From Marianna, 7 miles SE on Highway 44.

Blanchard Springs - From Fifty Six, 1.5 miles E on Highway 14, 3.5 miles N on Forest Road 1110.

Cove Lake - From Paris, 1.1 miles S on Highway 109, 7.5 miles SE on Highway 309, 6 miles SE on Forest Road 1608.

Horsehead Lake - From Clarksville, 7.6 miles NW on Highway 103, 3.8 miles W on Highway 164, 2.8 miles NW on Forest Road 1408.

The Corps of Engineers Project Areas selected for questionnaire distribution and their locations are shown herebelow:

Bull Shoals Lake - Ozark Isle, Lakeview, Dam Site, Point Return, Bull Shoals, Highway 125, Buck Creek, Lead Hill, and Tucker Hollow (all of these points in Arkansas only).

DeGray Lake - From Arkadelphia, 8 miles N on Highway 7.

The Wildlife Refuges selected for questionnaire distribution and their locations are shown herebelow:

White River National Wildlife Refuge - From Dewitt, 10 miles S on Highway 1, 9 miles E on Highway, E on County Road.

Wattensaw Wildlife Management Area - From Hazen, 1 mile E on U. S. 70, 6 miles N on Highway 11.

Hurricane Lake Wildlife Management Area - From Wordan 5 miles S.

The Arkansas Game and Fish Commission Public Fishing Areas where questionnaires were distributed and their locations are shown herebelow:

Lake Conway - From Conway E on Highway 286 and also South on Highway 365.

Exhibit 2 shows the available facilities at each of the surveyed recreational sites.

EXHIBIT 2

GENERAL LOCATION AND FACILITIES AT DISTRIBUTION SITES

	Area of State	Close to Interstate	Cabins	Camping	Fishing	Launch Ramp	Lodge	Marina	Museum	Nature Trail	Park Store	Picnic Area	Restaurant	Restrooms	Snack Bar	Showers	Swimming
State Parks																	
Bull Shoals	NE		x	x	x	x		x		x	x	x		x		x	
Crowley's Ridge	SW	I-30		x	x	x	x	x			x			x	x	x	x
DeGray	SW	I-30	x	x	x	x		x		x	x	x	x	x	x	x	x
Lake Catherine	NE			x	x	x				x		x		x		x	x
Lake Charles	SE			x	x					x		x		x	x	x	x
Moro Bay	WC			x			x			x	x	x	x	x		x	
Queen Wilhelmina	NE	I-40		x	x	x				x	x	x		x		x	
Village Creek	SW	I-30		x	x	x		x		x	x	x		x		x	x
White Oak Lake	NW			x	x					x		x		x		x	
Withrow Springs																	
National Parks or Rivers																	
Hot Springs National Park	SW	I-30		x	x	x		x	x	x		x		x			x
Buffalo National River	NC		x	x	x					x		x	x	x			x
National Forest Areas																	
Bear Creek Lake	SE			x	x	x					x	x		x	x	x	x
Blanchard Springs	NC			x	x					x		x		x		x	x
Cove Lake	NW			x	x	x						x		x		x	x
Horsehead Lake	NW	I-40		x	x	x						x		x		x	x
Corps of Engineer Areas																	
Bull Shoals Lake	NC			x	x	x		x		x		x		x	x		x
DeGray Lake	SW	I-30		x	x	x	x	x		x		x		x			x
Wild Life Refuge																	
White River	SE			x	x	x						x		x			
Primitive Camping Areas																	
Wattensaw	EC																
Hurricane Lake	EC																
Lake Conway Area	C		x	x	x	x		x			x	x		x	x		

Source: Arkansas 1977 State Highway Map

CHAPTER IV: EVALUATION OF EFFECTS OF LIMITED ACCESS HIGHWAYS UPON OUTDOOR RECREATION

An evaluation of the effects of limited access highways upon outdoor recreation is provided below. This evaluation starts with a general overview of attitudes. Next, the relative importance of access and the area itself in site choice is analyzed. The evaluation then turns to traveler attitudes concerning route choice. A comparison is made between the various types of outdoor recreationists as to attitude, trip characteristics, and demographic characteristics. A similar comparison is made between visitors to different types of outdoor recreation areas. Following this, a comparison is made of attitudes and characteristics of those interviewed near and far from interstates. Finally, an evaluation is made of outdoor recreationists' attitudes toward economic development in recreation areas.

4.1 General Overview of Traveler Attitudes

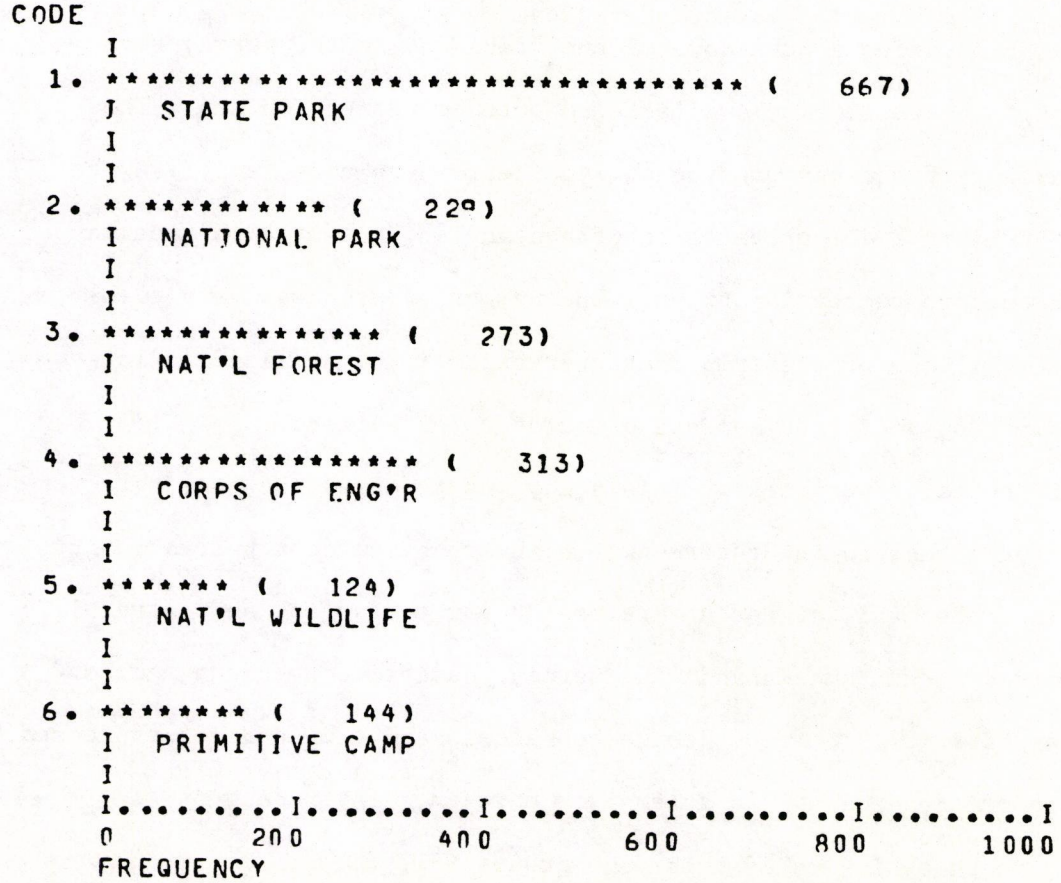
The purpose of this section is to provide a general overview of the survey of the 1,750 persons who were contacted in recreation areas in Arkansas. These persons responded to a questionnaire shown in Appendix I. This general overview is only a very preliminary look at the matter of traveler attitudes and later sections will provide an in-depth analysis of various aspects of outdoor recreationists' attitudes and characteristics.

Exhibit 3 shows how they were distributed by type of outdoor recreation area. The largest number was the 38.1 percent surveyed in state parks. Following this were the 17.9 percent in Corps of Engineer areas; 15.6 percent in national forests; 13.1 percent in national parks; 8.2 percent in

EXHIBIT 3

DISTRIBUTION BY TYPE OF OUTDOOR RECREATION AREA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
STATE PARK	1.	667	38.1	38.1	38.1
NATIONAL PARK	2.	229	13.1	13.1	51.2
NAT'L FOREST	3.	273	15.6	15.6	66.8
CORPS OF ENG'R	4.	313	17.9	17.9	84.7
NAT'L WILDLIFE	5.	124	7.1	7.1	91.8
PRIMITIVE CAMP	6.	144	8.2	8.2	100.0
	TOTAL	1750	100.0	100.0	



Source: Survey conducted by the Authors.

primitive camps; and 7.1 percent in national wildlife refuges. The section comparing attitudes and characteristics of visitors to different types of outdoor recreation areas will provide an evaluation of the survey findings.

Exhibit 4 shows more specifically in terms of the specific outdoor recreation areas the distribution of visitors surveyed. These recreation areas provide a good cross section of the numerous recreation areas in Arkansas and represent areas that are both near and far from interstate-type highways. The breakdown of the areas near to or far from interstate highways is shown in Exhibit 5. It indicates that 62.4 percent of those recreationists surveyed were in areas far from the interstate-type highways, while 37.6 of the recreationists were in areas near interstates. A later section will evaluate in more detail the differences between the trip and demographic characteristics of the recreationists as well as of other breakdowns of those recreationists surveyed.

Exhibit 6 provides a breakdown of the frequency in the survey for various numbers of facilities available to outdoor recreationists. The greatest category frequency was the 46.7 percent where nine families were available. Exhibit 7 demonstrates the frequency in the survey of weekday and weekend outdoor recreation trips. The number of each was very evenly divided. This is one of the trip characteristics to be utilized in later sections comparing different aspects of outdoor recreation.

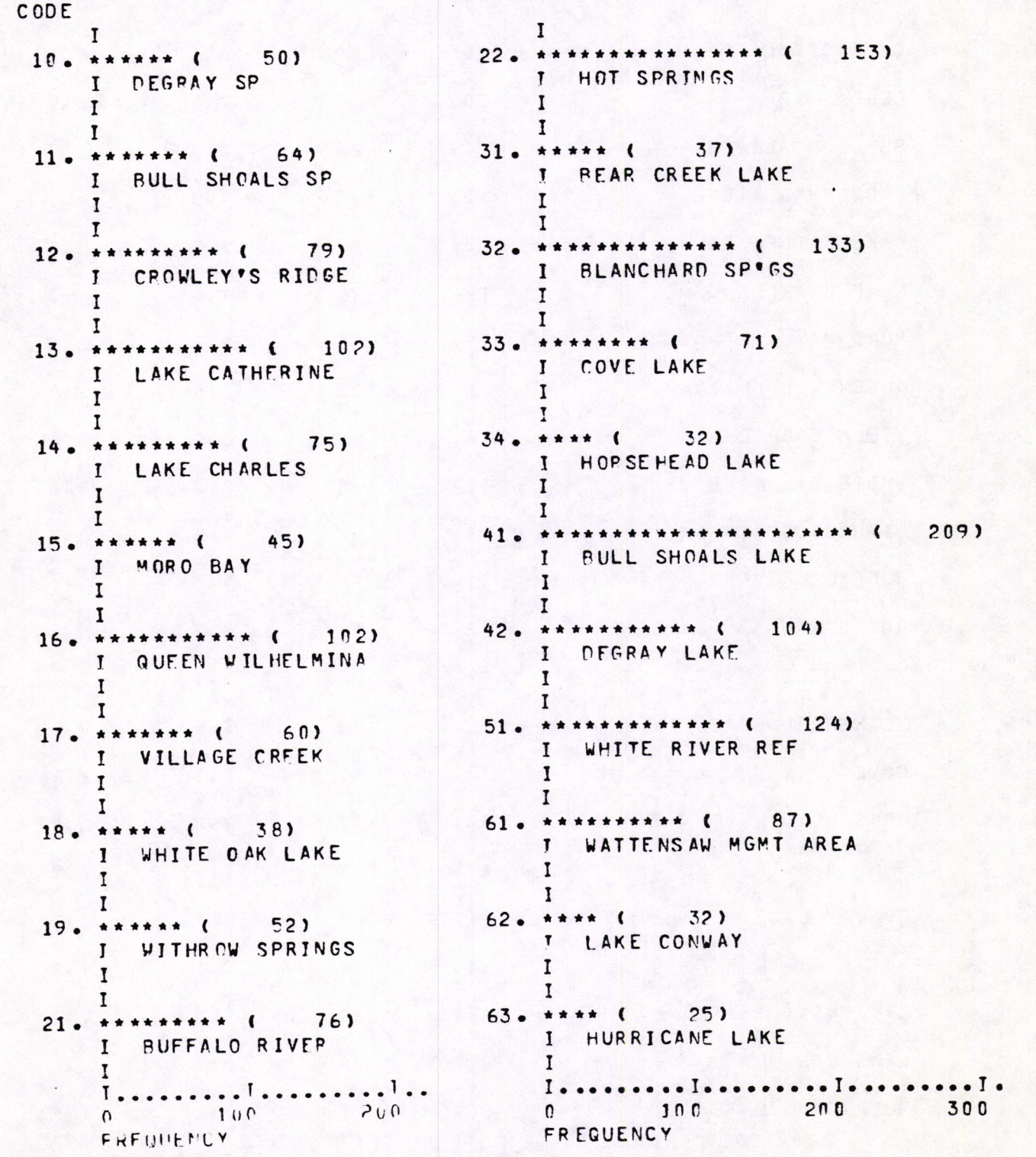
One of the major purposes of this study was to determine the degree of preference for access to interstate-type highways by outdoor recreationists. Exhibit 8 indicates this degree of preference for access and shows that 17.6 percent desired direct access and 41.5 percent desired convenient access. On the other hand, 27.9 percent desired no access and 13.1 percent expressed a desire for remote access. An attempt is made in a later section to analyze the characteristics of these sub-groups.

EXHIBIT 4

DISTRIBUTION BY SPECIFIC OUTDOOR RECREATION AREAS

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
DEGRAY SP	10.	50	2.9	2.9	2.9
BULL SHOALS SP	11.	64	3.7	3.7	6.5
CROWLEY'S RIDGE	12.	79	4.5	4.5	11.0
LAKE CATHERINE	13.	102	5.8	5.8	16.9
LAKE CHARLES	14.	75	4.3	4.3	21.1
MORO BAY	15.	45	2.6	2.6	23.7
QUEEN WILHELMINA	16.	102	5.8	5.8	29.5
VILLAGE CREEK	17.	60	3.4	3.4	33.0
WHITE OAK LAKE	18.	38	2.2	2.2	35.1
WITHROW SPRINGS	19.	52	3.0	3.0	38.1
BUFFALO RIVER	21.	76	4.3	4.3	42.5
HOT SPRINGS	22.	153	8.7	8.7	51.2
BEAR CREEK LAKE	31.	37	2.1	2.1	53.3
BLANCHARD SP'GS	32.	133	7.6	7.6	60.9
COVE LAKE	33.	71	4.1	4.1	65.0
HORSEHEAD LAKE	34.	32	1.8	1.8	66.8
BULL SHOALS LAKE	41.	209	11.9	11.9	78.7
DEGRAY LAKE	42.	104	5.9	5.9	84.7
WHITE RIVER REF	51.	124	7.1	7.1	91.8
WATTENSAW MGMT AREA	61.	87	5.0	5.0	96.7
LAKE CONWAY	62.	32	1.8	1.8	98.6
HURRICANE LAKE	63.	25	1.4	1.4	100.0
	TOTAL	1750	100.0	100.0	

EXHIBIT 4 (Continued)

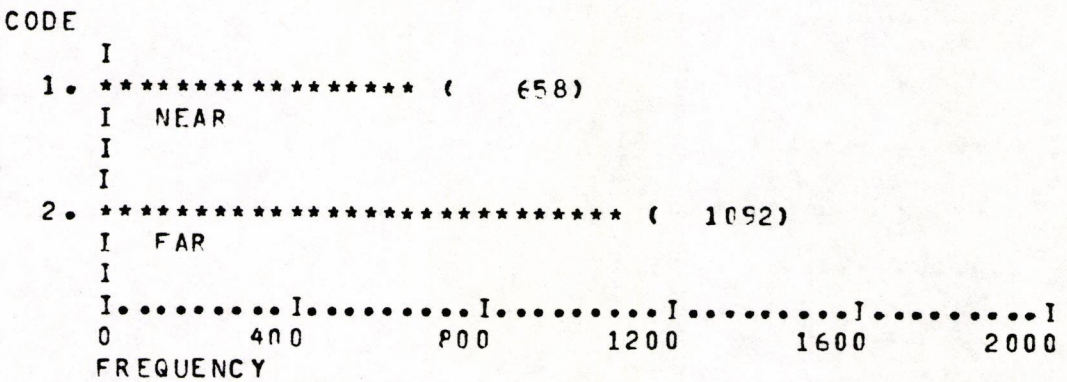


Source: Survey conducted by the Authors.

EXHIBIT 5

DISTRIBUTION OF VISITORS BY NEARNESS
TO INTERSTATE OF RECREATION AREA

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NEAR	1.	658	37.6	37.6	37.6
FAR	2.	1092	62.4	62.4	100.0
	TOTAL	1750	100.0	100.0	

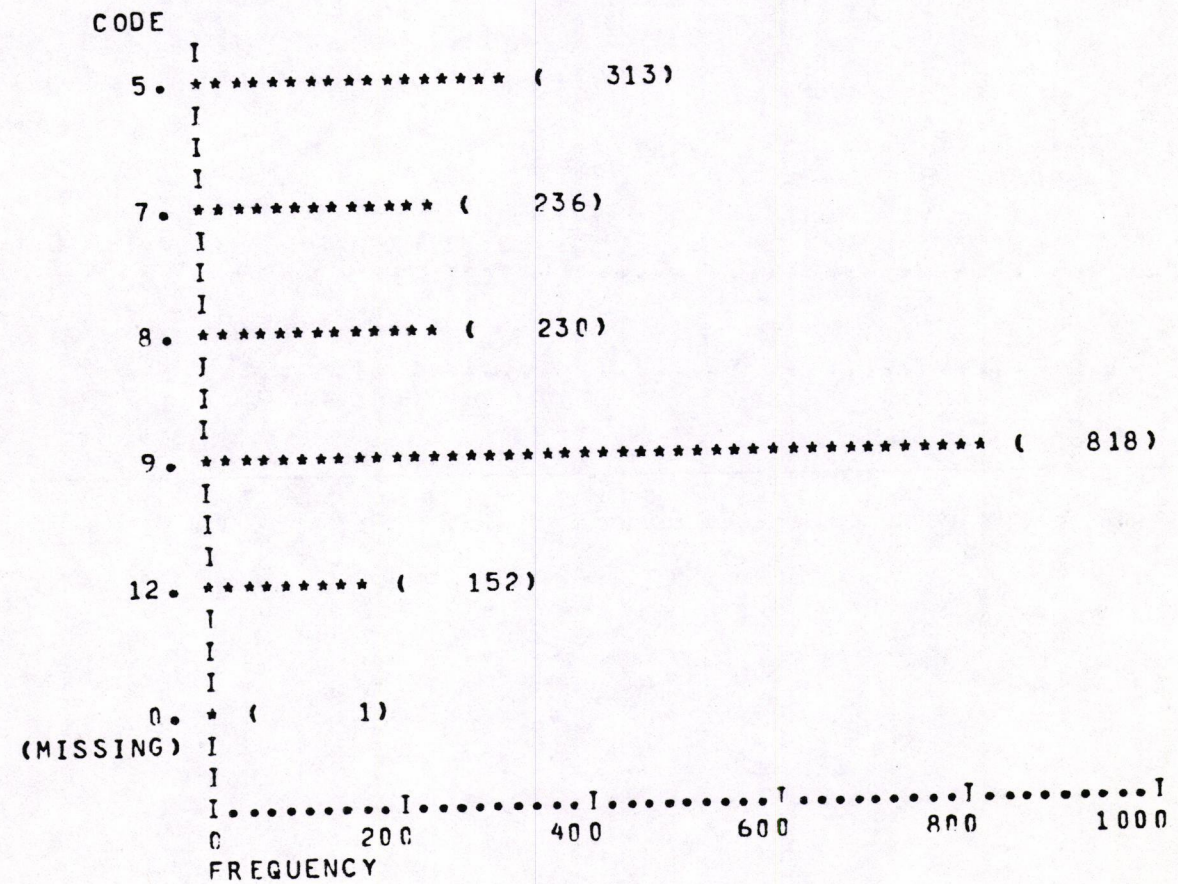


Source: Survey conducted by the Authors.

EXHIBIT 6

DISTRIBUTION BY NUMBER OF FACILITIES
AVAILABLE IN RECREATION SITE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
	5.	313	17.9	17.9	17.9
	7.	236	13.5	13.5	31.4
	8.	230	13.1	13.2	44.5
	9.	818	46.7	46.8	91.3
	12.	152	8.7	8.7	100.0
	0.	1	0.1	MISSING	100.0
	TOTAL	1750	100.0	100.0	

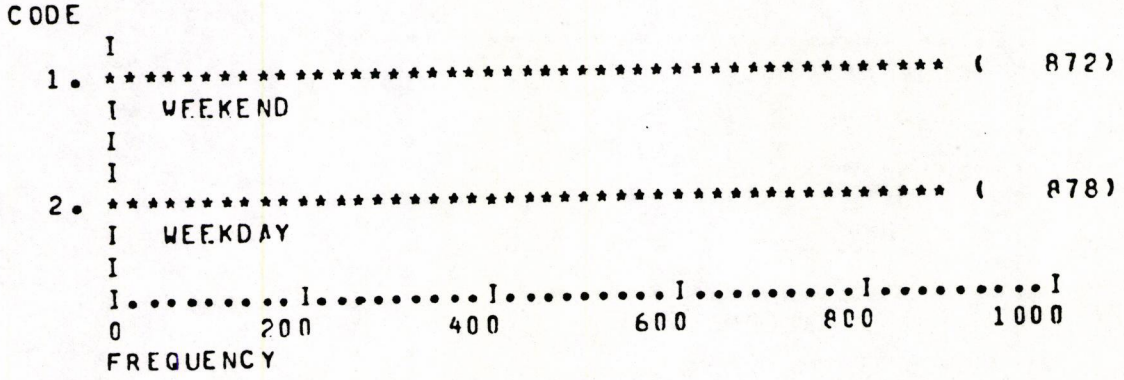


Source: Survey conducted by the authors.

EXHIBIT 7

DISTRIBUTION BY WEEKDAY OR WEEKEND TRIP

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
WEEKEND	1.	872	49.8	49.8	49.8
WEEKDAY	2.	878	50.2	50.2	100.0
	TOTAL	1750	100.0	100.0	

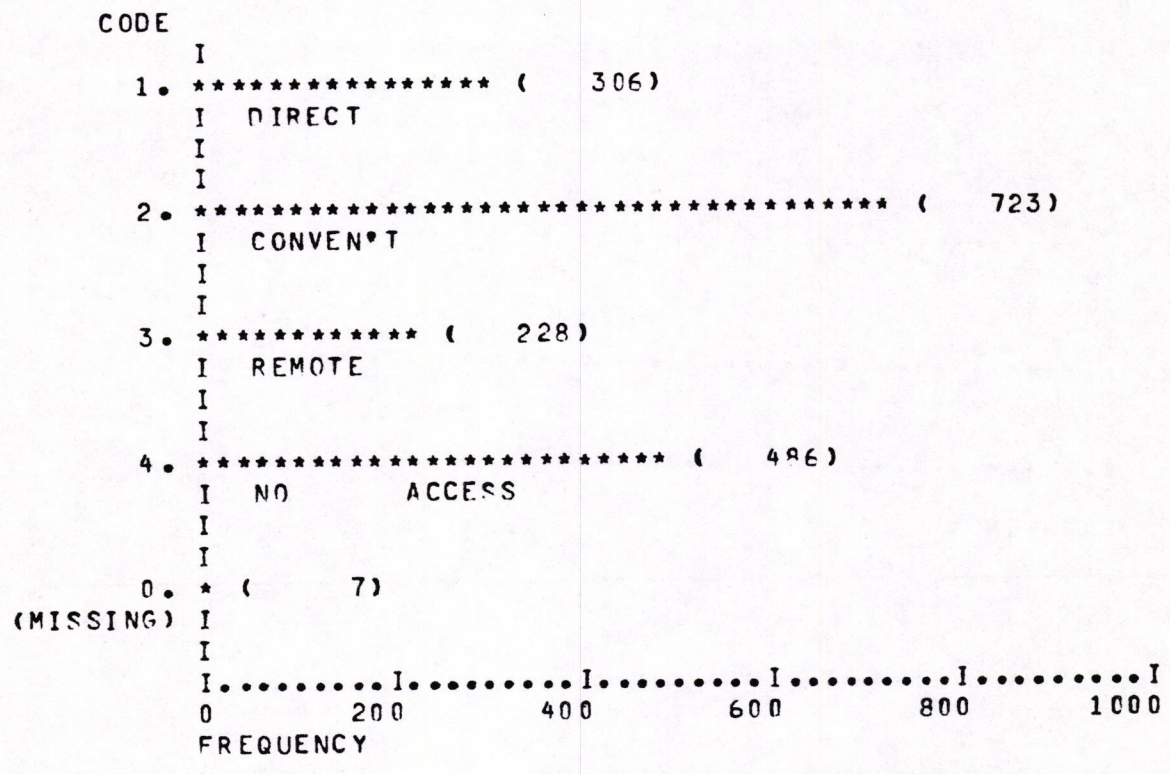


Source: Survey conducted by the Authors.

EXHIBIT 8

DISTRIBUTION BY DEGREES OF PREFERENCE
FOR ACCESS TO INTERSTATE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
DIRECT	1.	306	17.5	17.6	17.6
CONVEN'T	2.	723	41.3	41.5	59.0
REMOTE	3.	228	13.0	13.1	72.1
NO ACCESS	4.	486	27.8	27.9	100.0
	0.	7	0.4	MISSING	100.0
	TOTAL	1750	100.0	100.0	



Source: Survey conducted by the Authors.

Some insight into the outdoor recreationists' desire for access is provided by Exhibit 9 which shows the maximum distance they will travel from the interstate for outdoor recreation. The breakdown of this shows that 8.8 percent said they would travel a maximum of less than 10 miles; 23.9 percent said their maximum was 11-25 miles; nearly a third, or 30.5 percent, said 26-50 miles; 16.8 percent indicated 51-100 miles; and 20.9 percent said over 100 miles. In a later section of this paper, where traveler attitudes concerning site selection are evaluated, deeper insight will be provided into the matter of distance recreationists are willing to travel. An analysis will be made of the travel distance sub-groups. The indication here is that a sizable proportion will drive substantial distances from interstates to find recreational areas.

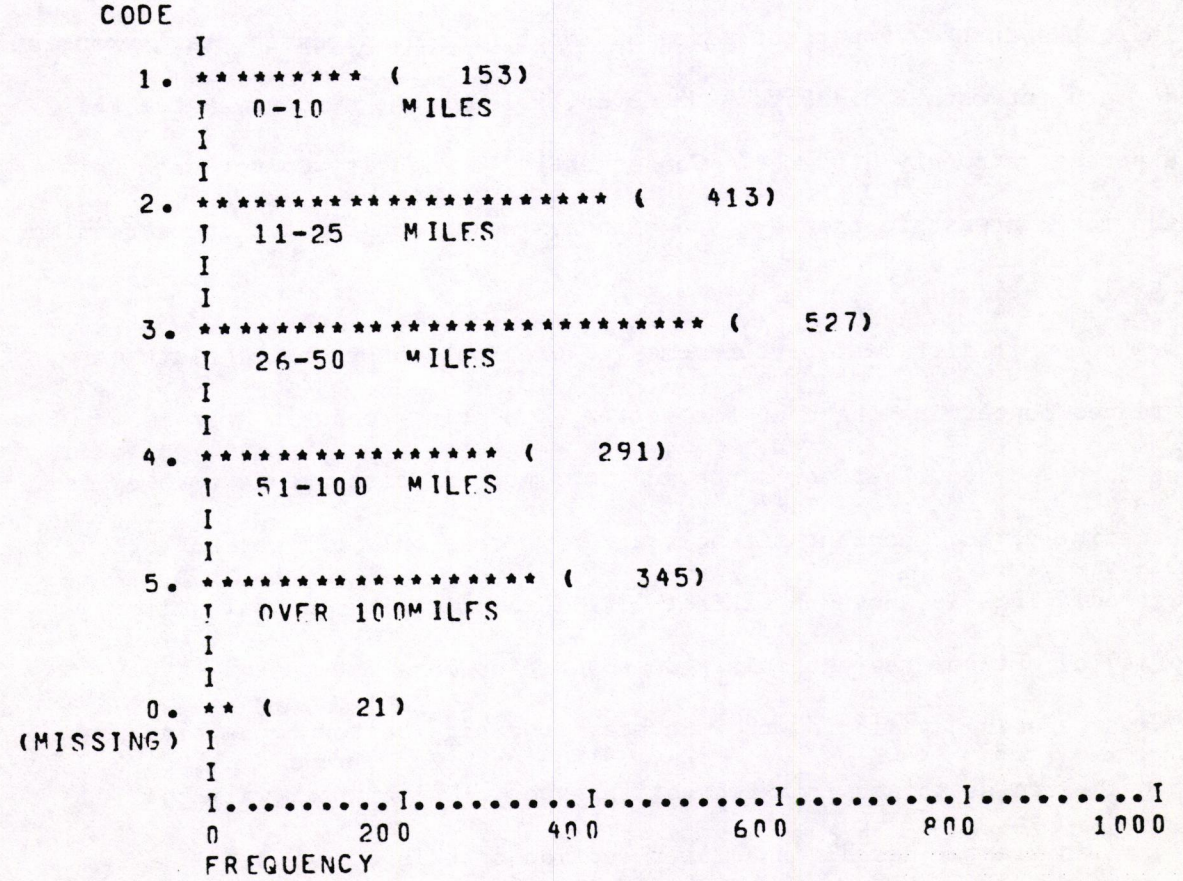
Additional insight is provided by their expression of agreement or disagreement about whether Arkansas needs more interstate highways. Exhibit 10 indicates that 44.9 percent agree and 55.1 percent disagree that Arkansas needs more interstate highways. Moreover, 9.1 percent strongly agree while 14.9 percent strongly disagree. Consequently, a majority do not seem to desire more interstate-freeway type highways being constructed in recreation areas.

A somewhat different pattern emerged when outdoor recreationists were questioned concerning the need for better connecting roads in Arkansas. Of those surveyed, 65.1 percent agree and 34.9 percent disagree as to the need. Interestingly, 16.3 percent strongly agree whereas only 6.5 percent strongly disagreed. This is shown in Exhibit 11. The indication is that while a majority of outdoor recreationists do not prefer more interestate-type highways becoming available, they do seem to desire better connecting roads to provide access to and from recreation areas. This matter will be analyzed in greater detail in a later section of this study.

EXHIBIT 9

DISTRIBUTION BY DISTANCE RECREATIONISTS WILL TRAVEL FROM INTERSTATE TO ENGAGE IN OUTDOOR RECREATION

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
0-10 MILES	1.	153	8.7	8.8	8.8
11-25 MILES	2.	413	23.6	23.9	32.7
26-50 MILES	3.	527	30.1	30.5	63.2
51-100 MILES	4.	291	16.6	16.8	80.0
OVER 100MILES	5.	345	19.7	20.0	100.0
	0.	21	1.2	MISSING	100.0
	TOTAL	1750	100.0	100.0	

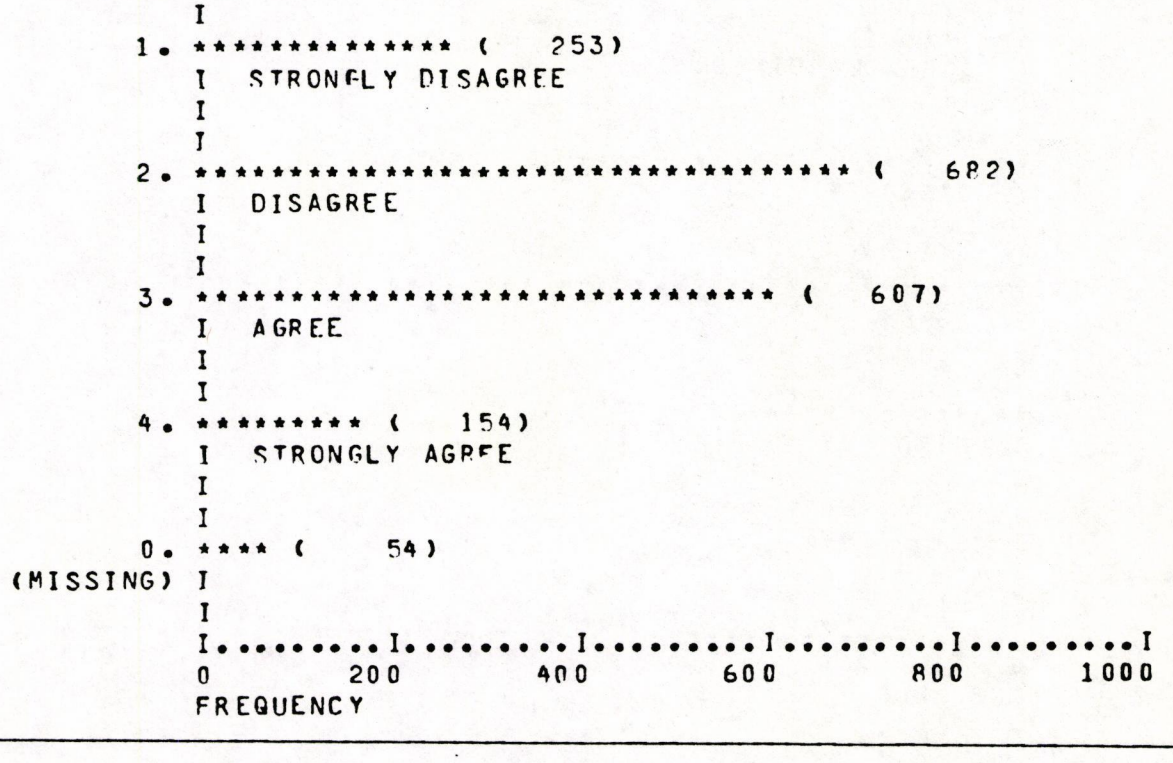


Source: Survey conducted by the Authors.

EXHIBIT 10

DISTRIBUTION OF ATTITUDE CONCERNING WHETHER ARKANSAS NEEDS MORE INTERSTATE HIGHWAYS

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
STRONGLY DISAGREE	1.	253	14.5	14.9	14.9
DISAGREE	2.	682	39.0	40.2	55.1
AGREE	3.	607	34.7	35.8	90.9
STRONGLY AGREE	4.	154	8.8	9.1	100.0
	0.	54	3.1	MISSING	100.0
	TOTAL	1750	100.0	100.0	

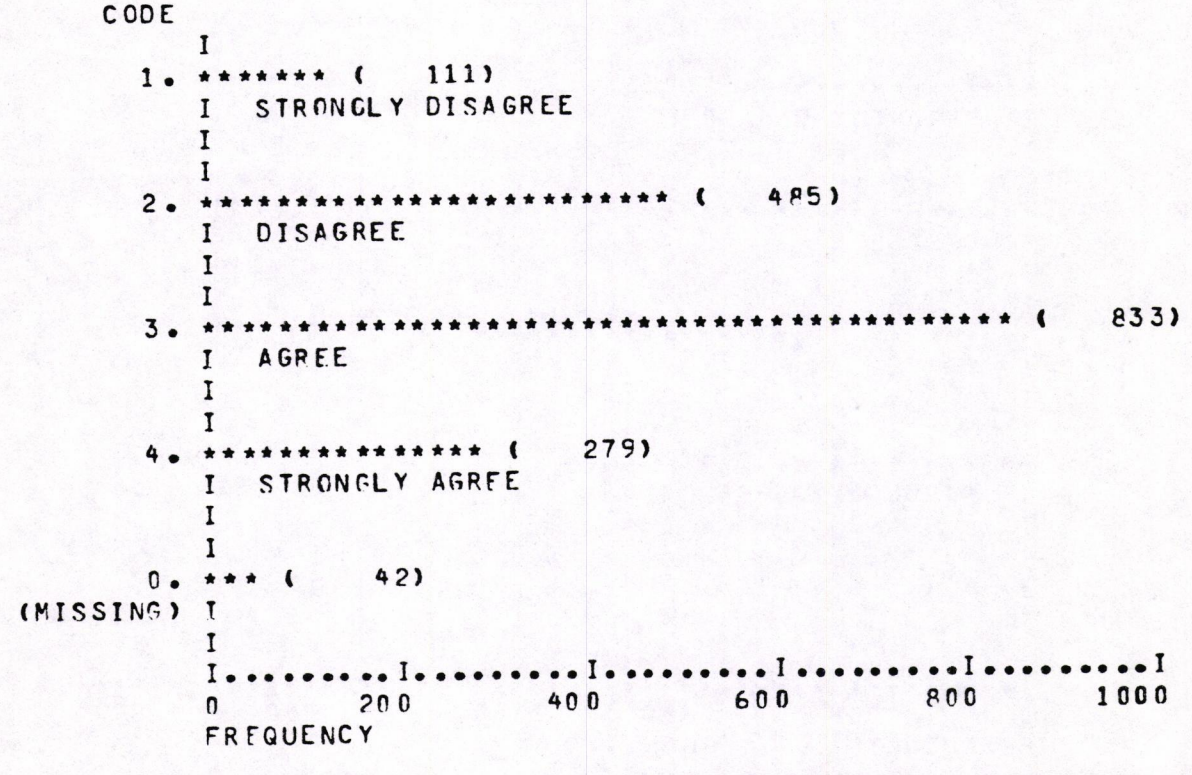


Source: Survey conducted by the Authors.

EXHIBIT 11

DISTRIBUTION OF ATTITUDE CONCERNING WHETHER ARKANSAS NEEDS BETTER CONNECTING ROADS

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
STRONGLY DISAGREE	1.	111	6.3	6.5	6.5
DISAGREE	2.	485	27.7	28.4	34.9
AGREE	3.	833	47.6	48.8	83.7
STRONGLY AGREE	4.	279	15.9	16.3	100.0
	0.	42	2.4	MISSING	100.0
	TOTAL	1750	100.0	100.0	



Source: Survey conducted by the Authors.

With regard to the availability of traveler services, Exhibit 12 indicates that nearly 60 percent feel that no more are needed while 40 percent feel that more traveler services were desired. Only 11.3 percent expressed a strong desire for more, whereas 16.9 percent expressed strong disagreement. Consequently, a majority expressed the view that more traveler services were not needed. Traveler services were defined on the questionnaire as restaurants, motels, service stations and the like.

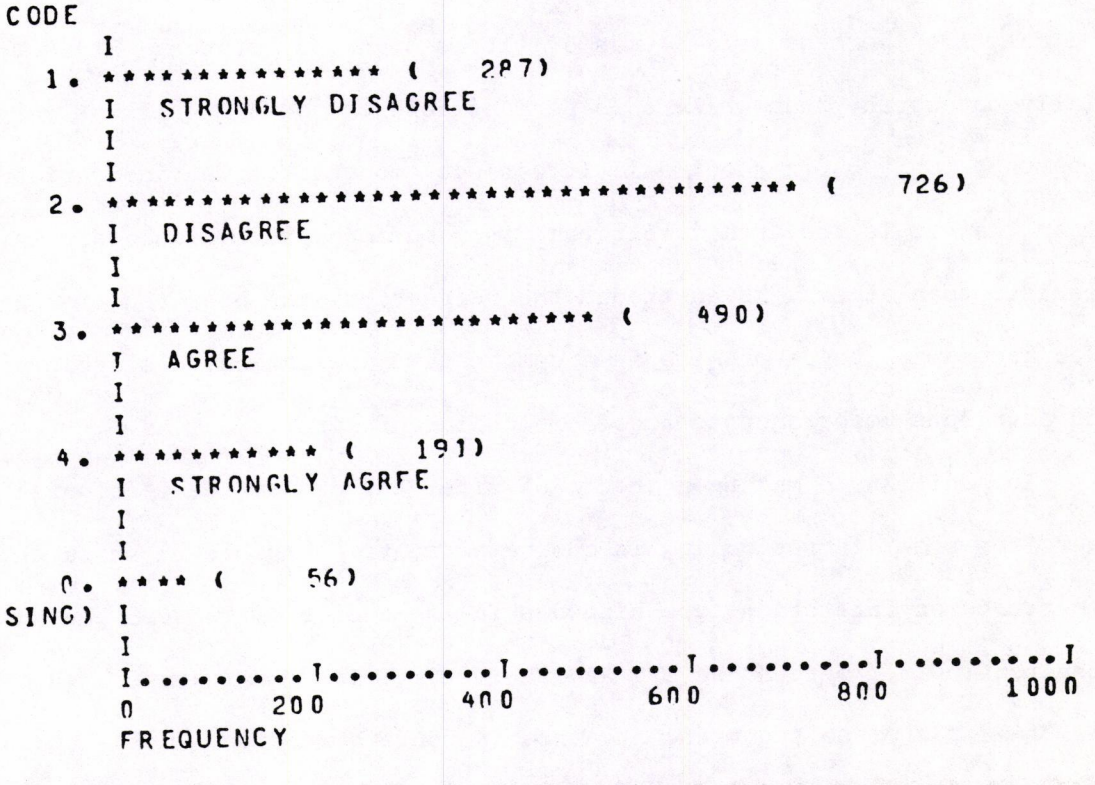
A very interesting comparison is the importance of access and the importance of the recreation area itself in site choice. Exhibit 13 shows that 55.3 percent say access is of little or no importance while 44.8 percent say it is important in their decision. Interestingly, only 9.3 percent said it was very important, whereas 24.7 percent said it was not important. Exhibit 14 shows the survey results concerning importance of area in site choice. Of those surveyed, 86.6 percent said the area itself was important and only 13.4 percent said it was of little or no importance. It is especially noteworthy that while 63.5 percent said the area itself was very important, only 6.3 percent said it was not important. The indication seems clear that it is the area itself that is more important to outdoor recreationists than access. Even though the recreationists' preference of area over access in choice of site is a comparative indication, a sizable minority did attribute importance to access in choice of site.

In addition to making a choice of site, the outdoor recreationist also exercises some discretion in his choice of route. Exhibit 15 shows the importance of interstate-type highways in the choice of route. The survey resulted in 56.7 percent saying availability of interstate-type highways was of little or no importance to them in route selection. Only 10.9 percent said they were very important in route selection. Exhibit 16

EXHIBIT 12

DISTRIBUTION OF ATTITUDE CONCERNING WHETHER
THIS AREA NEEDS MORE TRAVELER SERVICES

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
STRONGLY DISAGREE	1.	287	16.4	16.9	16.9
DISAGREE	2.	726	41.5	42.9	59.8
AGREE	3.	490	28.0	28.9	88.7
STRONGLY AGREE	4.	191	10.9	11.3	100.0
	0.	56	3.2	MISSING	100.0
	TOTAL	1750	100.0	100.0	

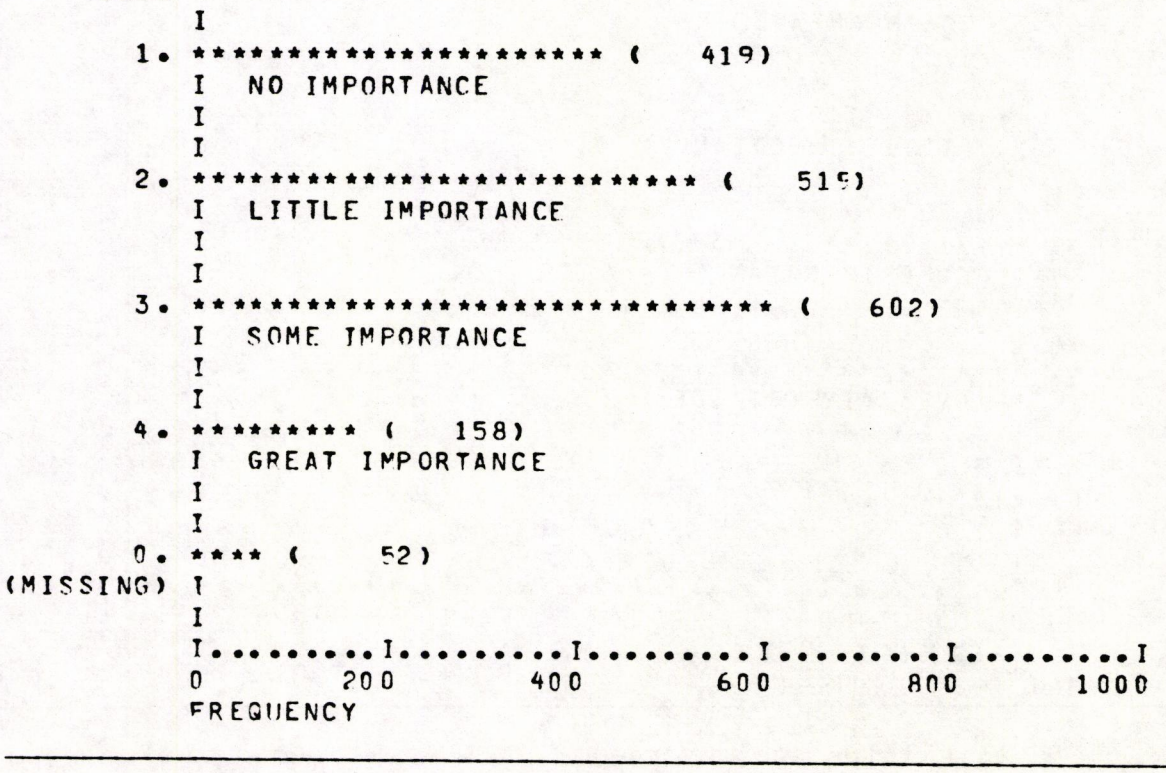


Source: Survey conducted by the Authors.

EXHIBIT 13

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN SITE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	419	23.9	24.7	24.7
LITTLE IMPORTANCE	2.	519	29.7	30.6	55.2
SOME IMPORTANCE	3.	602	34.4	35.5	90.7
GREAT IMPORTANCE	4.	158	9.0	9.3	100.0
	0.	52	3.0	MISSING	100.0
	TOTAL	1750	100.0	100.0	

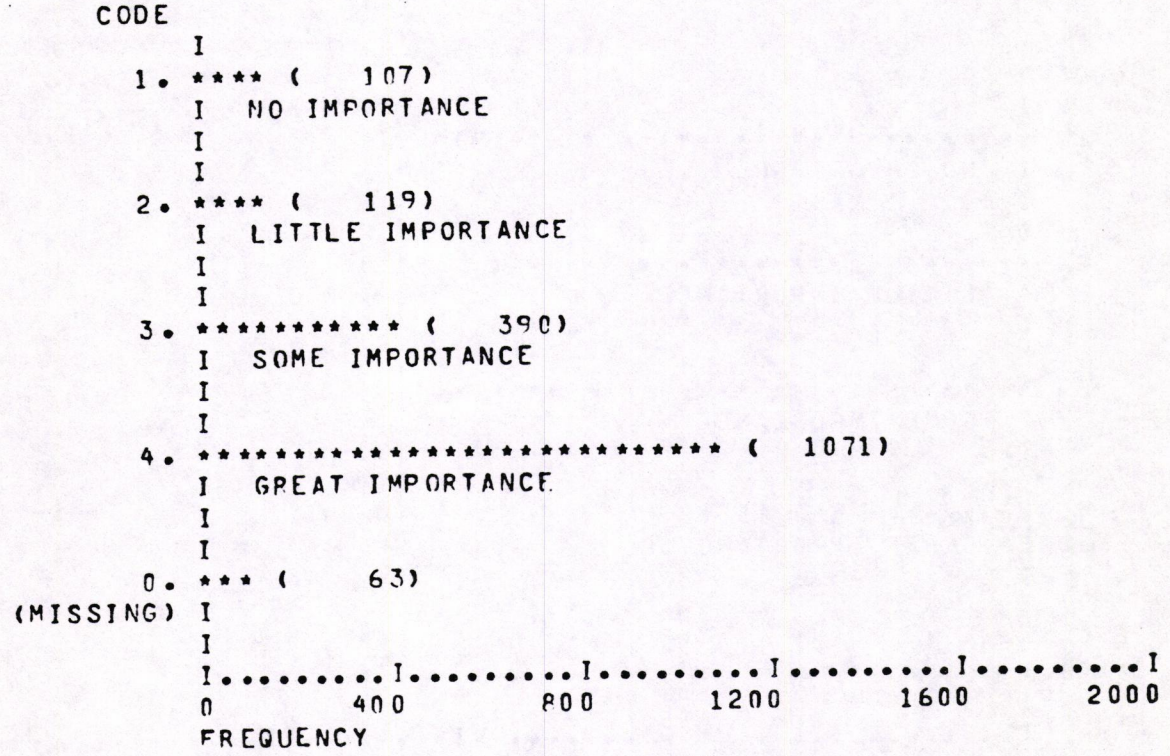


Source: Survey conducted by the Authors.

EXHIBIT 14

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF AREA IN SITE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	107	6.1	6.3	6.3
LITTLE IMPORTANCE	2.	119	6.8	7.1	13.4
SOME IMPORTANCE	3.	390	22.3	23.1	36.5
GREAT IMPORTANCE	4.	1071	61.2	63.5	100.0
	0.	63	3.6	MISSING	100.0
	TOTAL	1750	100.0	100.0	

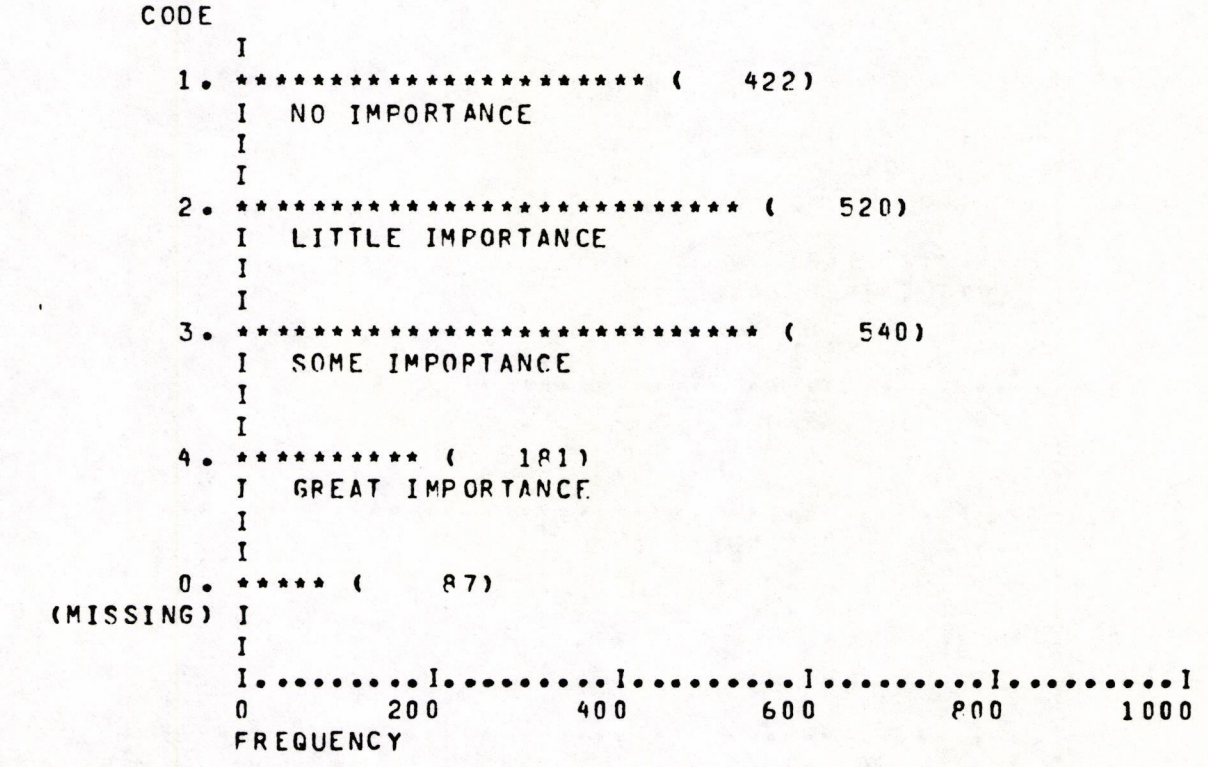


Source: Survey conducted by the Authors.

EXHIBIT 15

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF INTERSTATE IN ROUTE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	422	24.1	25.4	25.4
LITTLE IMPORTANCE	2.	520	29.7	31.3	56.6
SOME IMPORTANCE	3.	540	30.9	32.5	89.1
GREAT IMPORTANCE	4.	181	10.3	10.9	100.0
	0.	87	5.0	MISSING	100.0
	TOTAL	1750	100.0	100.0	

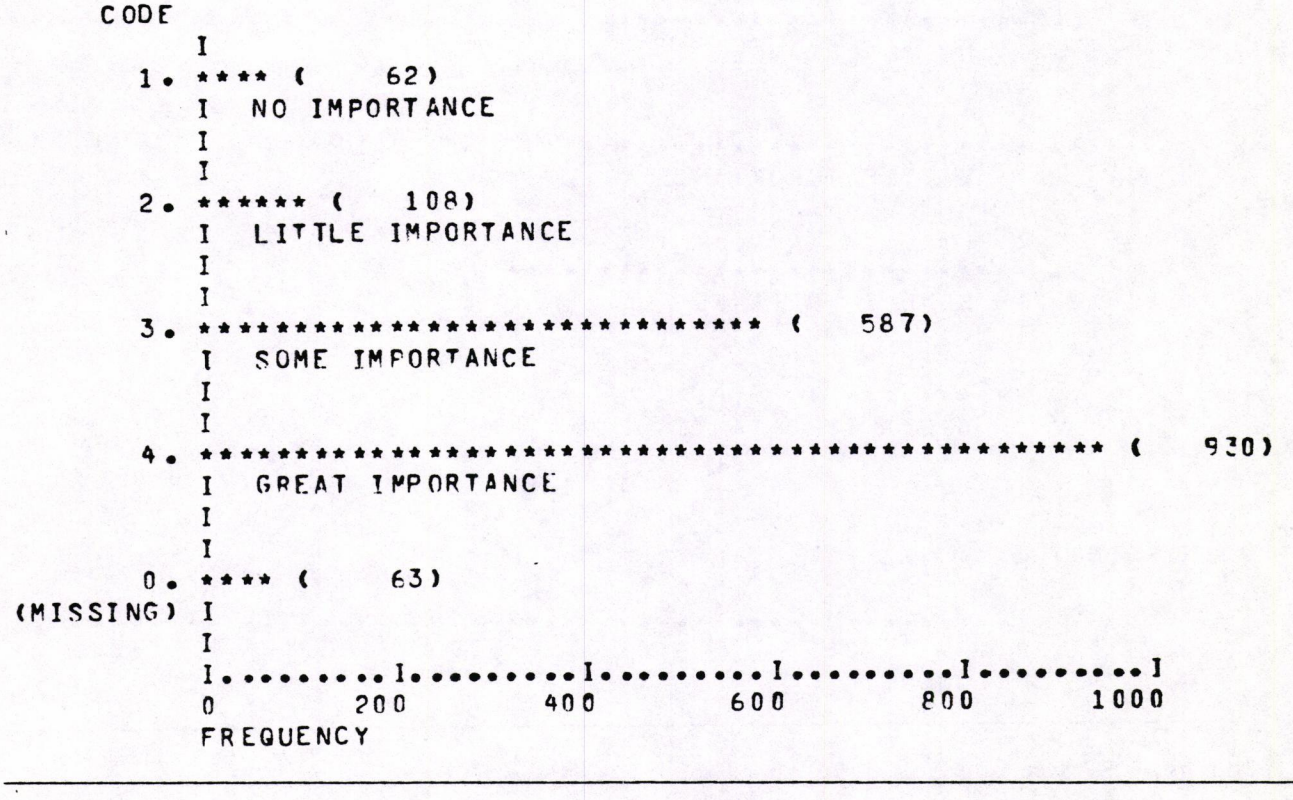


Source: Survey conducted by the Authors.

EXHIBIT 16

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE
OF ALL-WEATHER ROAD IN ROUTE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	62	3.5	3.7	3.7
LITTLE IMPORTANCE	2.	108	6.2	6.4	10.1
SOME IMPORTANCE	3.	587	33.5	34.8	44.9
GREAT IMPORTANCE	4.	930	53.1	55.1	100.0
	0.	63	3.6	MISSING	100.0
	TOTAL	1750	100.0	100.0	



Source: Survey conducted by the Authors.

demonstrates that 89.9 percent of those surveyed said availability of all-weather roads was important to them in choice of route. In fact, 55.1 percent said this was very important. Exhibit 17 indicates that also of importance is availability of scenic highways with 81.5 percent giving this importance. Another matter of importance in route selection was directness of the route. In the survey, 71.6 percent of the respondents expressed the opinion that a direct route was of great importance, while 28.4 percent felt it was of little or no importance. This is shown in Exhibit 18. Finally, on the matter of route selection, Exhibit 19 shows that availability of services was important to 68.3 percent of those surveyed.

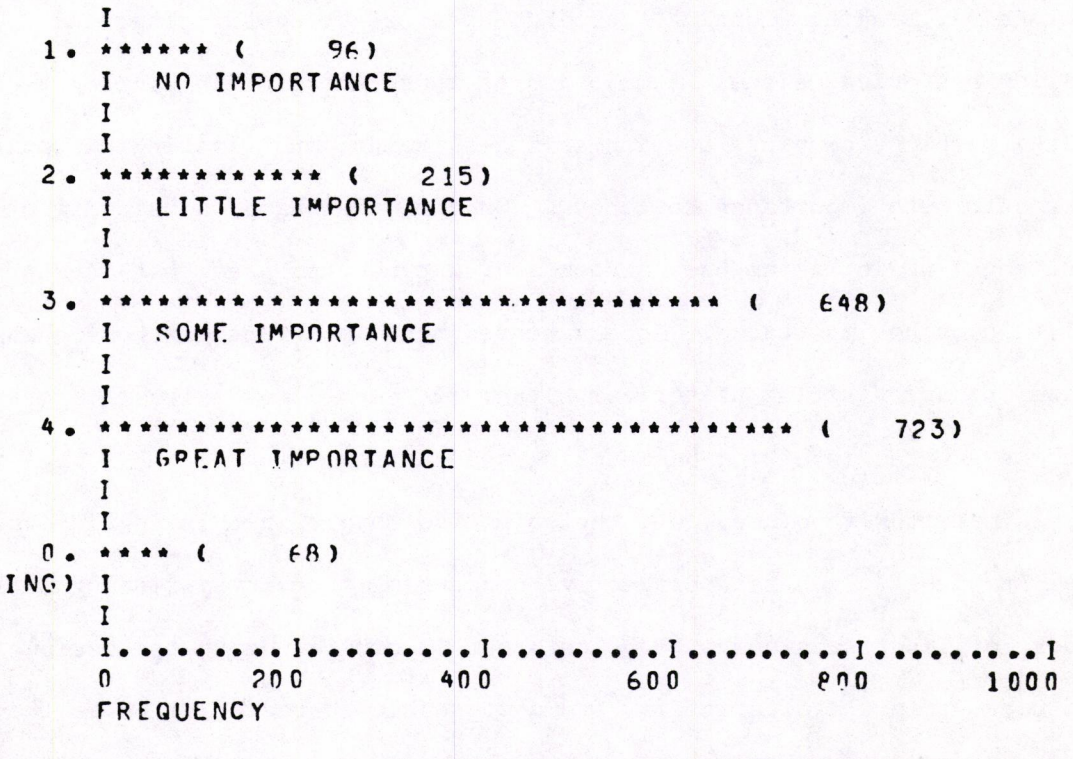
Further insight into the importance of access is provided by dividing the outdoor recreationists into those participating in different types of outdoor recreation. Exhibits 20 through 26 show the degree of importance attributed to access by those engaging in hiking-backpacking, picnicing-sightseeing, fishing, hunting, camping, boating-skiing-swimming, and visiting historical sites. A majority of those engaging in picnicing-sightseeing, fishing, camping, boating-skiing-swimming, and visiting historical sites attribute importance to access. On the other hand, a majority of those engaging in hiking-backpacking and hunting expressed that access is of little or no importance. Access seemed most important to those engaged in camping and visiting historical sites. It seemed to be least important to those engaged in hiking-backpacking and hunting.

As previously pointed out, the objective sought in this section was simply to provide general perspective concerning the survey findings. The purpose of later sections will be to probe in greater depth the various attitudes, trip characteristics, and demographic characteristics as they relate to the effect of limited access highways upon outdoor recreation.

EXHIBIT 17

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF SCENIC HIGHWAY IN ROUTE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	96	5.5	5.7	5.7
LITTLE IMPORTANCE	2.	215	12.3	12.8	18.5
SOME IMPORTANCE	3.	648	37.0	38.5	57.0
GREAT IMPORTANCE	4.	723	41.3	43.0	100.0
	0.	68	3.9	MISSING	100.0
	TOTAL	1750	100.0	100.0	

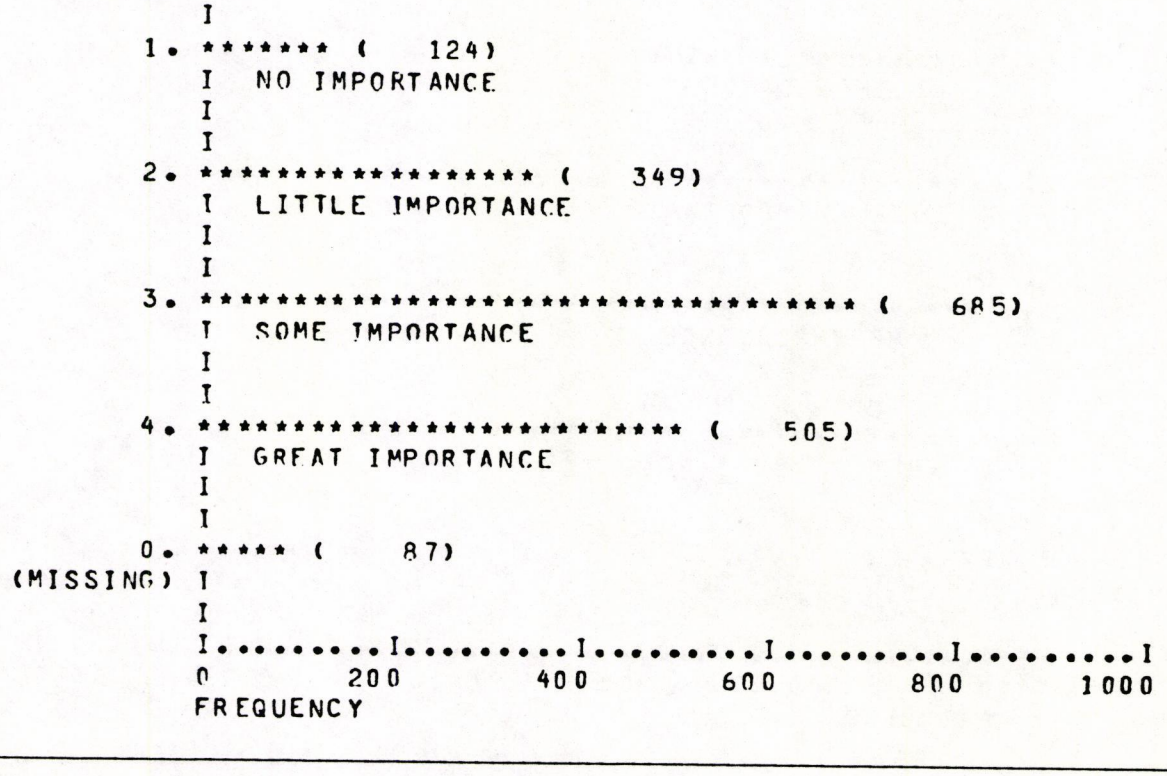


Source: Survey conducted by the Authors.

EXHIBIT 18

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF DIRECTNESS IN ROUTE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	124	7.1	7.5	7.5
LITTLE IMPORTANCE	2.	349	19.9	21.0	28.4
SOME IMPORTANCE	3.	685	39.1	41.2	69.6
GREAT IMPORTANCE	4.	505	28.9	30.4	100.0
	0.	87	5.0	MISSING	100.0
	TOTAL	1750	100.0	100.0	

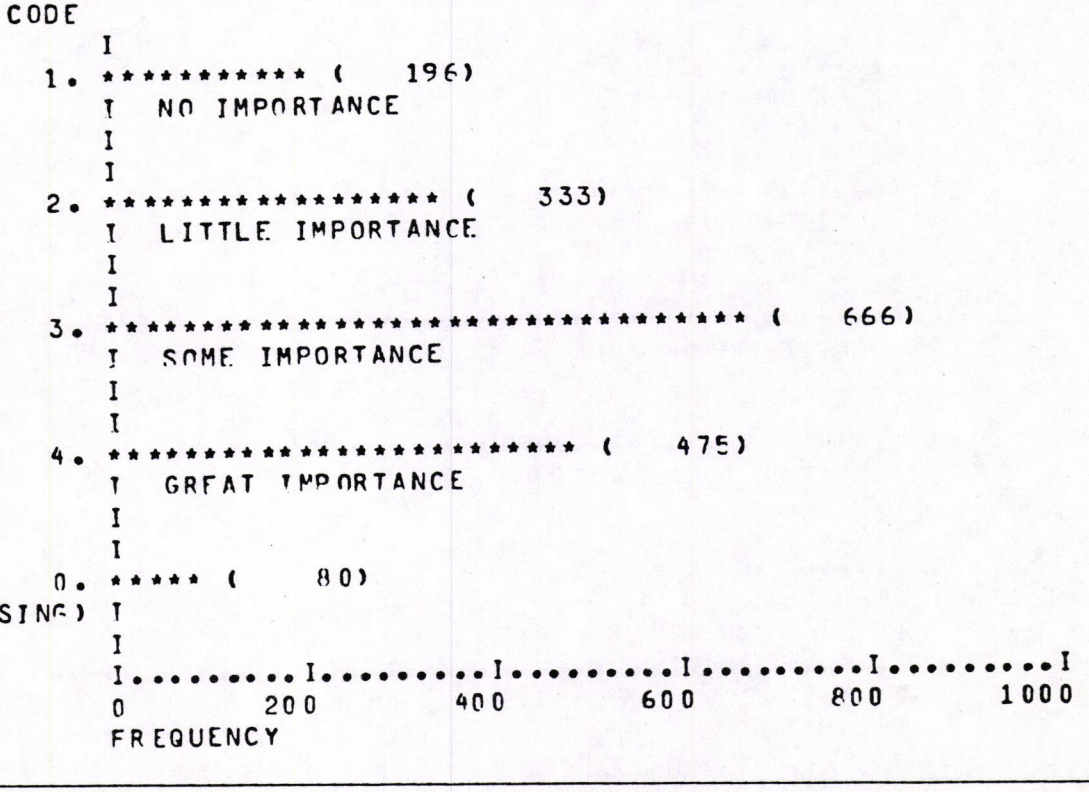


Source: Survey conducted by the Authors.

EXHIBIT 19

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF SERVICES IN ROUTE CHOICE

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	196	11.2	11.7	11.7
LITTLE IMPORTANCE	2.	333	19.0	19.9	31.7
SOME IMPORTANCE	3.	666	38.1	39.9	71.6
GREAT IMPORTANCE	4.	475	27.1	28.4	100.0
	0.	80	4.6	MISSING	100.0
	TOTAL	1750	100.0	100.0	

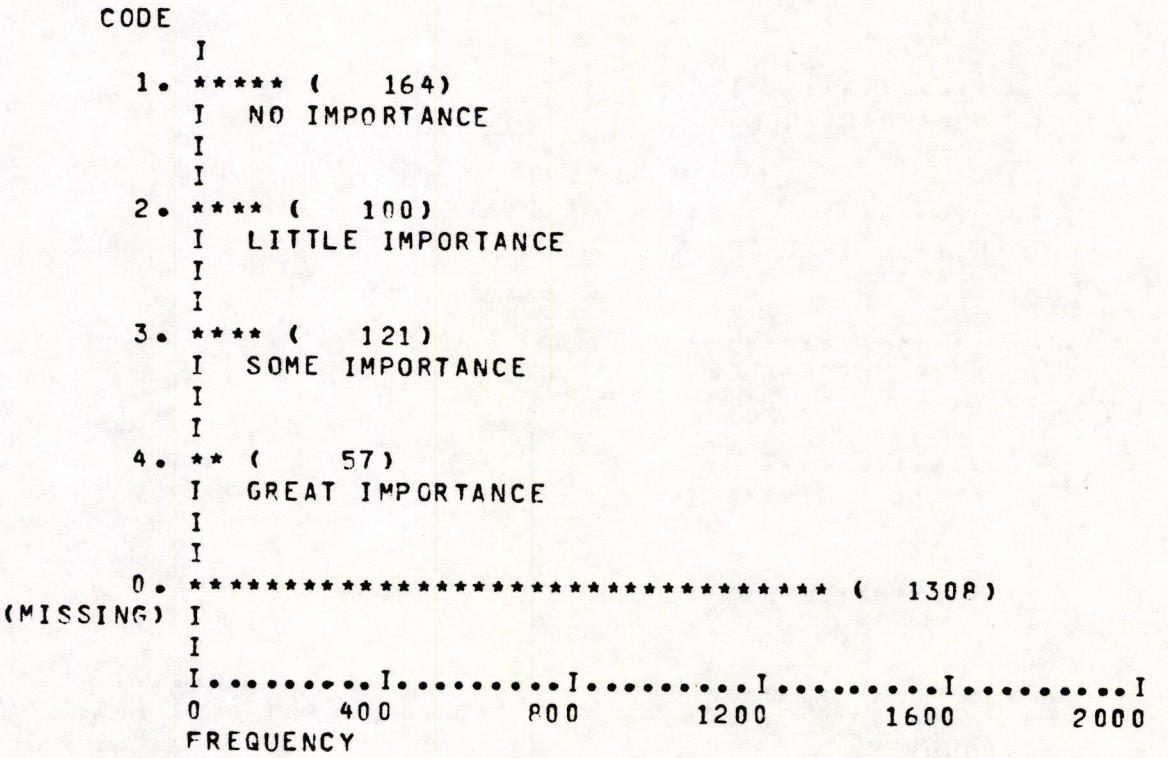


Source: Survey conducted by the Authors.

EXHIBIT 20

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN HIKING-BACKPACKING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	164	9.4	37.1	37.1
LITTLE IMPORTANCE	2.	100	5.7	22.6	59.7
SOME IMPORTANCE	3.	121	6.9	27.4	87.1
GREAT IMPORTANCE	4.	57	3.3	12.9	100.0
	0.	1308	74.7	MISSING	100.0
	TOTAL	1750	100.0	100.0	

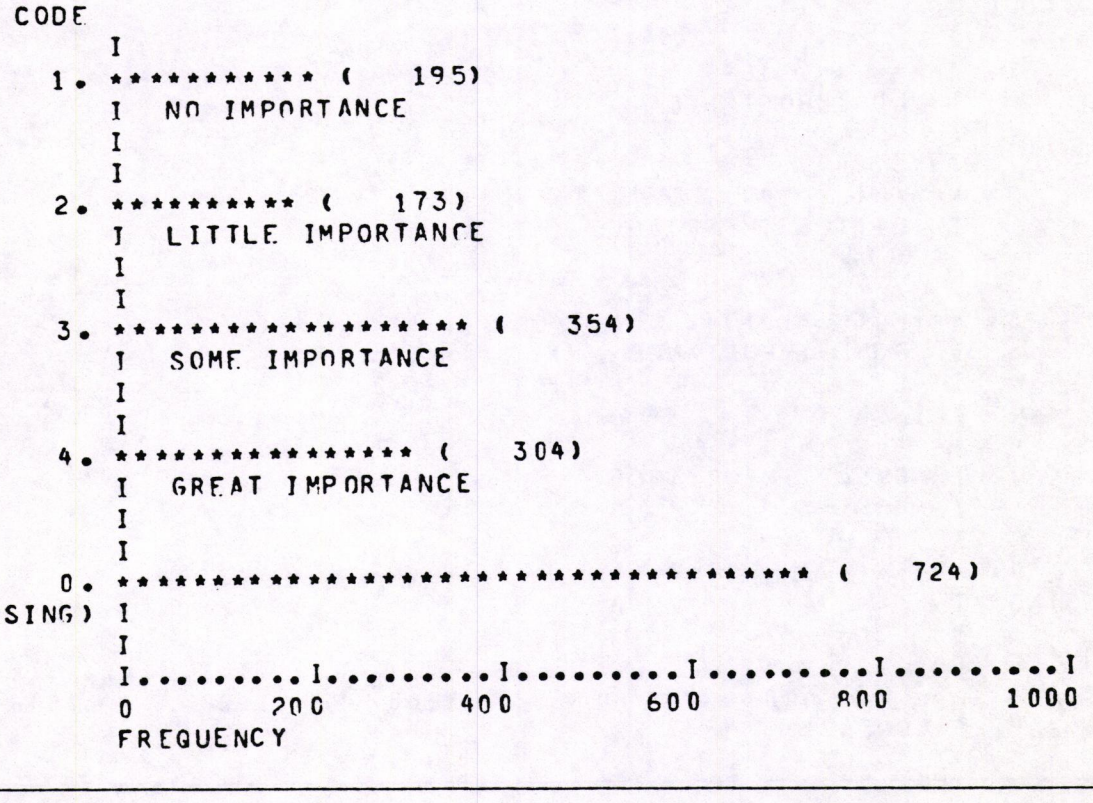


Source: Survey conducted by the Authors.

EXHIBIT 21

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN PICNIC-SIGHTSEEING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	195	11.1	19.0	19.0
LITTLE IMPORTANCE	2.	173	9.9	16.9	35.9
SOME IMPORTANCE	3.	354	20.2	34.5	70.4
GREAT IMPORTANCE	4.	304	17.4	29.6	100.0
	0.	724	41.4	MISSING	100.0
	TOTAL	1750	100.0	100.0	

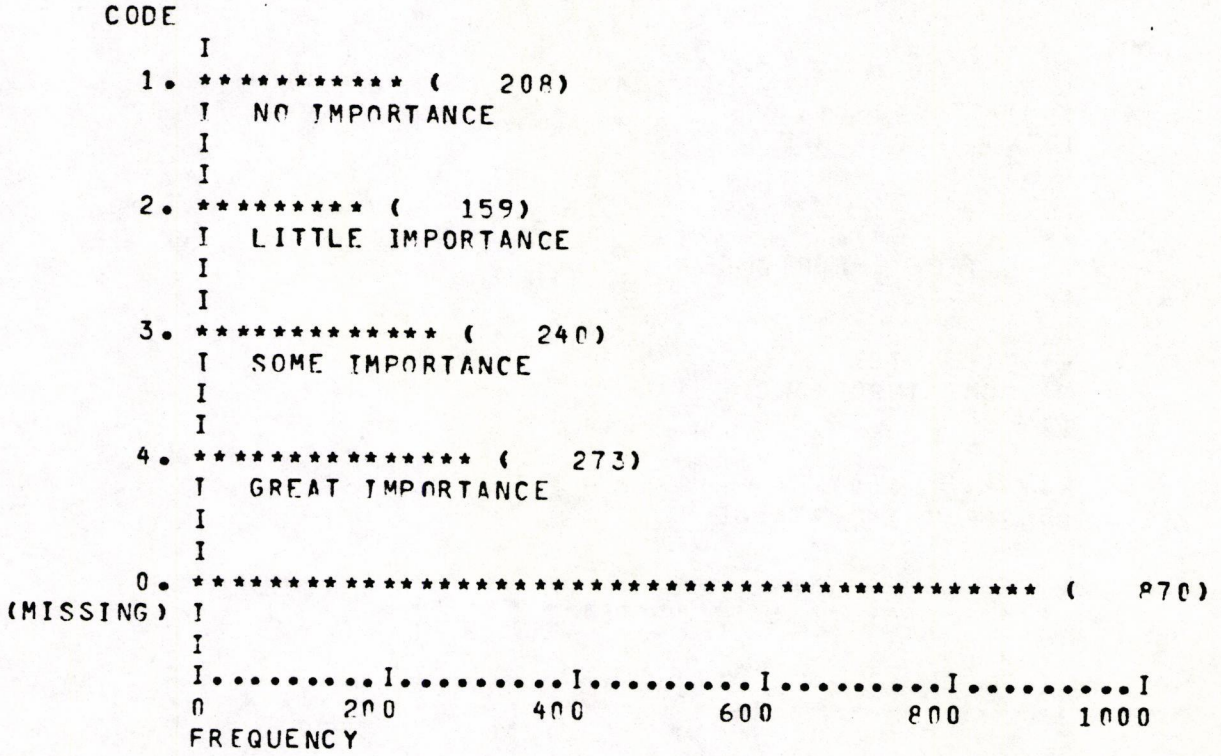


Source: Survey conducted by the Authors.

EXHIBIT 22

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN FISHING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	208	11.9	23.6	23.6
LITTLE IMPORTANCE	2.	159	9.1	18.1	41.7
SOME IMPORTANCE	3.	240	13.7	27.3	69.0
GREAT IMPORTANCE	4.	273	15.6	31.0	100.0
	0.	870	49.7	MISSING	100.0
	TOTAL	1750	100.0	100.0	

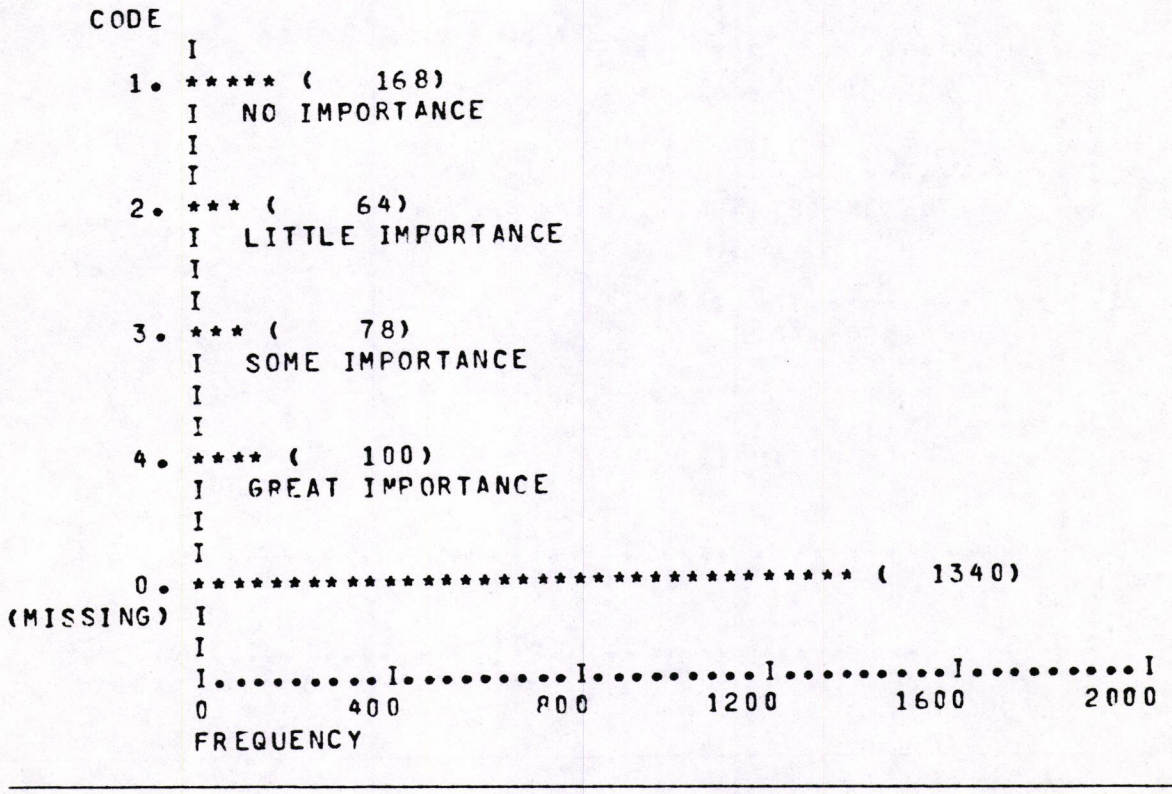


Source: Survey conducted by the Authors.

EXHIBIT 23

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN HUNTING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	168	9.6	41.0	41.0
LITTLE IMPORTANCE	2.	64	3.7	15.6	56.6
SOME IMPORTANCE	3.	78	4.5	19.0	75.6
GREAT IMPORTANCE	4.	100	5.7	24.4	100.0
	0.	1340	76.6	MISSING	100.0
	TOTAL	1750	100.0	100.0	

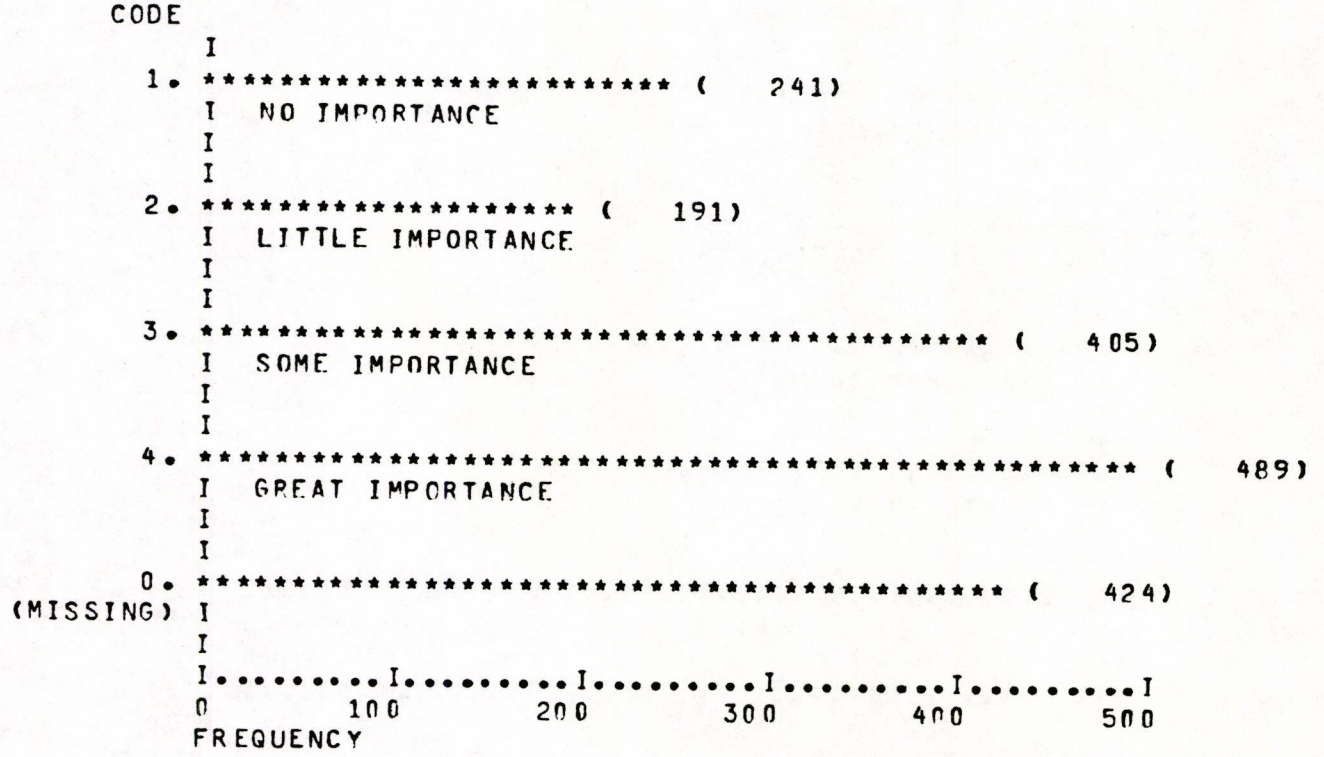


Source: Survey conducted by the Authors.

EXHIBIT 24

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN CAMPING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	241	13.8	18.2	18.2
LITTLE IMPORTANCE	2.	191	10.9	14.4	32.6
SOME IMPORTANCE	3.	405	23.1	30.5	63.1
GREAT IMPORTANCE	4.	489	27.9	36.9	100.0
	0.	424	24.2	MISSING	100.0
	TOTAL	1750	100.0	100.0	

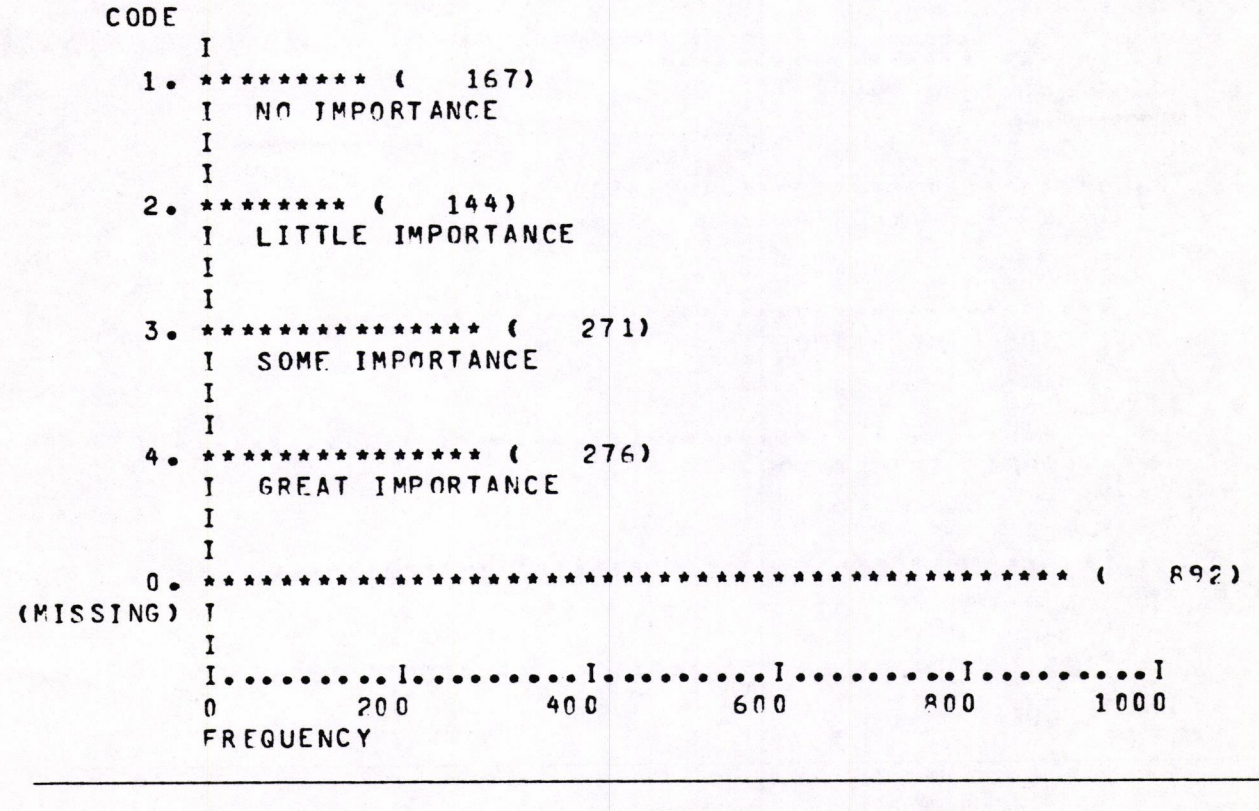


Source: Survey conducted by the Authors.

EXHIBIT 25

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN BOAT-SKI-SWIMMING

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	167	9.5	19.5	19.5
LITTLE IMPORTANCE	2.	144	8.2	16.8	36.2
SOME IMPORTANCE	3.	271	15.5	31.6	67.8
GREAT IMPORTANCE	4.	276	15.8	32.2	100.0
	0.	892	51.0	MISSING	100.0
	TOTAL	1750	100.0	100.0	

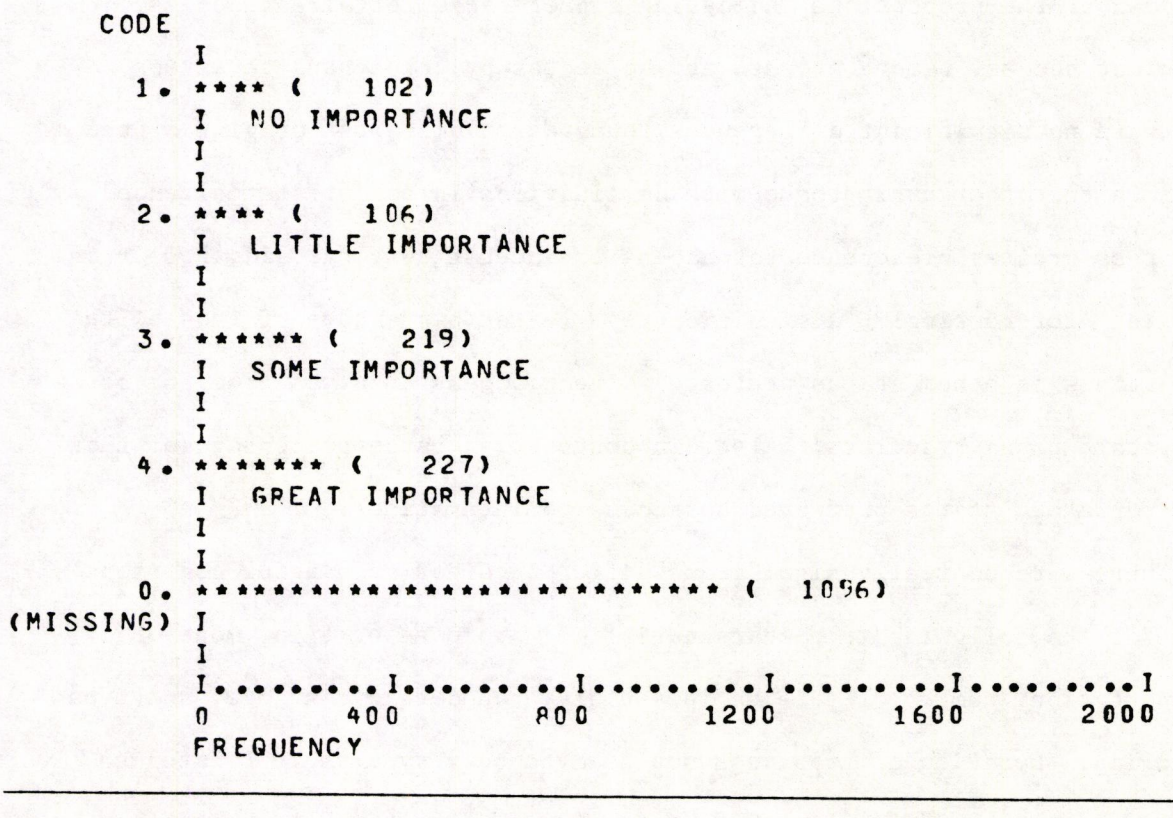


Source: Survey conducted by the Authors.

EXHIBIT 26

DISTRIBUTION OF ATTITUDE CONCERNING THE IMPORTANCE OF ACCESS IN VISITING HISTORICAL SITES

CATEGORY LABEL	CODE	ABSOLUTE FREQ	RELATIVE FREQ (PCT)	ADJUSTED FREQ (PCT)	CUM FREQ (PCT)
NO IMPORTANCE	1.	102	5.8	15.6	15.6
LITTLE IMPORTANCE	2.	106	6.1	16.2	31.8
SOME IMPORTANCE	3.	219	12.5	33.5	65.3
GREAT IMPORTANCE	4.	227	13.0	34.7	100.0
	0.	1096	62.6	MISSING	100.0
	TOTAL	1750	100.0	100.0	



Source: Survey conducted by the Authors.

4.2 Traveler Attitude Concerning Access to Interstate-Freeway Type Highways

The outdoor recreationists were asked to express their preferences concerning access as it relates to their choice of an outdoor recreational site. The breakdown of those surveyed recreationists who expressed preference for direct access, convenient access, remote access, or no access was shown in Exhibit 8 discussed in Section 4.1. Approximately 60 percent expressed a desire for direct or convenient, while 40 percent expressed a desire for remote or no access. Direct access was defined as 10 miles or under, convenient access was defined as 11 to 50 miles, and remote access was defined as over 50 miles. The purpose of this section is to provide additional insight into the preference for access to interstates.

4.2.1 Access and Selected Trip Characteristics. Exhibit 27 shows a breakdown of the proportions indicating a preference for direct access, convenient access, remote access, and no access by trip characteristics. There were no significant differences found as to different origins of the trip. On the other hand, those with destinations in border states tended to express greater preference for access to interstates than did those from in-state. Interestingly, a significantly greater percentage of those with destinations in other states preferred direct access than was true for border or in-state bound travelers. Also, in contrast, a large percentage of those bound for other states preferred no access to interstates.

There were no really significant differences nor meaningful contrasts found for the following trip characteristics: purpose of trip, mode of transportation, number of persons in vehicle, round-trip distance, and type of lodging. Duration of trip does not seem to be very closely related to degrees of preference for access to interstates. One general observation

EXHIBIT 27

PREFERENCE EXPRESSED CONCERNING DEGREE OF ACCESS
DESIRED IN THE CHOICE OF AN OUTDOOR RECREATIONAL SITE
BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating			
			Direct (%)	Convenient (%)	Remote (%)	No Access (%)
Origin of Trip	In-state	(55.9%)*	17.5	39.8	13.4	29.3
	Border-state	(26.8%)	14.4	46.3	13.7	25.5
	Other-state	(17.3%)	19.7	42.6	11.1	26.6
Destination of Trip	In-state	(91.0%)	16.5	42.3	13.4	27.7
	Border-state	(4.1%)	16.4	52.5	14.8	16.4
	Other-state	(5.0%)	31.1	31.1	10.8	27.0
Purpose of Trip	Outdoor Rec.	(74.5%)	16.1	40.8	13.5	29.5
Duration of Trip	No Nights	(17.5%)	23.6	37.5	9.5	29.4
	1-2 Nights	(23.8%)	12.3	46.9	14.7	26.1
	3-5 Nights	(26.0%)	16.0	41.7	14.0	28.4
	6-15 Nights	(24.8%)	16.9	42.7	13.7	26.7
	16-More Nights	(7.9%)	25.4	32.1	10.4	32.1
Mode of Transportation	Auto-No Equip.	(25.2%)	17.9	40.0	12.8	29.3
	Auto-Equip.	(62.6%)	15.5	42.4	14.3	27.8
	Motor Home	(8.7%)	27.9	34.7	10.2	27.2
Number of Persons on Trip	1	(4.6%)	16.7	35.9	20.5	26.9
	2	(36.8%)	17.0	42.4	12.9	27.8
	3-5	(49.6%)	17.9	41.6	13.6	26.9
	6-more	(9.0%)	16.9	40.9	9.1	33.1
Round Trip Distance	Up to 200 Miles	(45.9%)	18.4	41.9	11.6	28.6
	200-399 Miles	(14.9%)	9.8	43.7	17.7	28.7
	400-599 Miles	(10.3%)	14.2	25.2	16.5	34.1
	600-799 Miles	(5.1%)	18.4	42.5	14.9	24.1
	800-999 Miles	(5.0%)	16.9	41.0	19.3	22.9
	1,000-1,999 Miles	(10.9%)	15.4	47.3	7.1	30.2
	2,000-over	(7.9%)	29.3	36.8	13.5	20.3
Primary Type of Lodging	None	(18.6%)	20.4	39.0	9.6	31.0
	Camping	(72.1%)	15.7	42.2	13.9	28.1
Previous Visitor	Yes	(66.1%)	15.9	38.1	13.2	32.7
	No	(33.9%)	19.8	48.6	12.7	18.9

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

might be that, except for those staying no nights, there seems to be a tendency by recreationists to prefer direct access, the longer is the duration of their trip. A final observation concerning trip characteristics was that those not visiting a site before had a significantly greater preference for access to interstates than those who were previous visitors.

4.2.2 Access and Selected Demographic Characteristics. Exhibit 28 displays a similar breakdown of attitude about access concerning demographic characteristics. Several generalizations are possible. Those who were not heads of households tended to have greater preference for access. The older age groups tended more than other age groups to prefer to a greater degree both direct access and no access. There are apparently distinct categories of older persons each having different attitudes. Also, the females surveyed tended to prefer better access than did the males.

The small and also insignificant number of non-whites tended to prefer direct or convenient access to a greater degree than did whites. Some tendency existed for lesser degrees of preference for access to interstates, the higher the level of education attained by the outdoor recreationists. Farmers tended to be the least concerned about access, while the most concerned about access were the craftsmen. Finally, there were no significant differences among the various income classes.

4.2.3 Arkansas Highway Needs by Selected Trip Characteristics. Exhibit 29 displays the comparison by trip characteristics of the agreement or disagreement concerning whether Arkansas needs more interstate-freeway type highways serving its outdoor recreational areas. It is interesting to note that there were no really significant differences among any of the trip characteristics evaluated. This implies that trip characteristics do not really

EXHIBIT 28

PREFERENCES EXPRESSED CONCERNING DEGREE OF ACCESS DESIRED IN THE CHOICE OF AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating			
			Direct (%)	Convenient (%)	Remote (%)	No Access (%)
Household Head	Yes	(78.4%)*	16.1	40.6	14.2	29.1
	No	(21.6%)	21.3	45.3	10.5	22.9
Age	Under 18	(3.4%)	16.7	41.7	13.3	28.3
	18-24	(10.8%)	16.8	43.5	14.1	25.5
	25-34	(25.8%)	12.2	46.4	17.5	23.9
	35-44	(24.2%)	14.4	42.1	12.7	30.8
	45-58	(17.2%)	22.2	39.7	10.1	27.9
	55-64	(10.9%)	20.7	38.3	11.7	29.3
	65 and over	(7.7%)	26.5	30.1	10.3	33.1
Sex	Male	(74.4%)	16.0	40.9	14.1	29.1
	Female	(25.6%)	20.9	43.8	10.8	24.5
Race	White	(98.5%)	16.9	41.6	13.5	27.9
Education	Grade School	(4.6%)	31.3	35.0	2.5	31.3
	High School	(49.9%)	19.2	41.4	10.7	28.8
	Post HS-College	(45.4%)	13.1	43.2	17.1	26.6
Occupation	Prof-Tec	(33.8%)	11.0	47.4	16.3	25.3
	Farm	(9.4%)	16.1	27.3	18.0	38.5
	Craft	(18.5%)	18.3	47.3	9.6	24.8
	Self-Emp.	(10.2%)	23.4	38.9	9.7	28.0
	Retired	(13.5%)	24.8	35.9	9.8	29.5
Income	Under $3,000	(3.9%)	27.0	36.5	6.3	30.2
	$5,000-$7,499	(6.8%)	21.8	35.5	11.8	30.9
	$7,500-$9,999	(12.5%)	14.6	41.7	11.5	32.3
	$10,000-$14,999	(25.2%)	17.6	43.0	14.8	24.7
	$15,000-$19,999	(23.0%)	15.0	45.8	11.9	27.2
	$20,000-$29,999	(19.0%)	15.9	41.0	16.3	26.8
	$30,000-over	(9.6%)	16.9	40.9	16.2	26.0

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 29

THE EXTENT OF AGREEMENT THAT ARKANSAS NEEDS MORE INTERSTATE-FREEWAY TYPE HIGHWAYS SERVING ITS OUTDOOR RECREATIONAL AREAS BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Origin of Trip	In-state	(55.9%)*	56.2	43.8
	Border-state	(26.8%)	51.6	48.4
	Other-state	(17.3%)	58.5	41.5
Destination of Trip	In-state	(91.0%)	55.6	44.4
	Border-state	(4.1%)	60.0	40.0
	Other-state	(5.0%)	53.0	47.0
Purpose of Trip	Outdoor Rec.	(74.5%)	56.0	44.0
Duration of Trip	No Nights	(17.5%)	52.2	47.8
	1-2 Nights	(23.8%)	53.8	46.2
	3-5 Nights	(26.0%)	57.9	42.1
	6-15 Nights	(24.8%)	56.0	44.0
	16-More Nights	(7.9%)	53.1	46.9
Mode of Transportation	Auto-No Equip.	(25.2%)	52.0	48.0
	Auto-Equip.	(62.6%)	57.9	42.1
	Motor Home	(8.7%)	48.9	51.1
Number of Persons on Trip	1	(4.6%)	59.0	41.0
	2	(36.8%)	57.4	42.6
	3-5	(49.6%)	54.3	45.7
	6-more	(9.0%)	48.7	51.3
Round Trip Distance	Up to 200 miles	(45.9%)	54.1	45.9
	200-399 Miles	(14.9%)	59.9	40.1
	400-599 Miles	(10.3%)	48.8	51.2
	600-799 Miles	(5.1%)	58.5	41.5
	800-999 Miles	(5.0%)	61.0	39.0
	1,000-1,999 Miles	(10.9%)	58.1	41.9
	2,000-over	(7.9%)	53.3	46.7
Primary Type of Lodging	None	(18.6%)	54.1	45.9
	Camping	(72.1%)	57.1	42.9
Previous Visitor	Yes	(66.1%)	56.7	43.3
	No	(33.9%)	51.7	48.3

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

have to be considered in evaluating the need for interstate-freeway type highways in outdoor recreation areas. As shown in this exhibit, a slight majority in almost all trip characteristic breakdowns disagreed about the need for more interstates.

4.2.4 Arkansas Highway Needs and Selected Demographic Characteristics. Exhibit 30 shows a comparison by demographic characteristics of the agreement or disagreement concerning the matter of Arkansas' need for more interstate-freeway type highways serving outdoor recreation areas. Several demographic categories displayed no significant differences. The more significant categories which seemed to agree that Arkansas needed more interstate-type highways were the following: non-household heads, females, those with elementary school or less education, retired persons, and those tending to have lower incomes.

4.2.5 Needs for Better Connecting Roads by Selected Trip Characteristics. Further insight into the importance of access to outdoor recreationists is provided in Exhibit 31. This displays the extent of agreement and disagreement by trip characteristics as to whether Arkansas needs better connecting roads from interstate-freeway type highways to recreational areas. In contrast to their attitude toward access to interstates, a majority of all sub-categories among the trip characteristics expressed agreement as to the need for better connecting roads. In a later section on analysis of access to interstates versus the area itself in site choice, it will be demonstrated that direct access to interstates in recreation areas is relatively less important to recreationists. The indication of the above is that recreationists desire good connecting roads rather than interstates to provide them access to recreation sites.

EXHIBIT 30

THE EXTENT OF AGREEMENT THAT ARKANSAS NEEDS MORE INTERSTATE-FREEWAY TYPE HIGHWAYS SERVING ITS OUTDOOR RECREATIONAL AREAS BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Household Head	Yes	(78.4%)*	56.7	43.3
	No	(21.6%)	49.4	50.6
Age	Under 18	(3.4%)	54.2	45.8
	18-24	(10.8%)	48.9	51.1
	25-34	(25.8%)	59.0	41.0
	35-44	(24.2%)	56.5	43.5
	45-54	(17.2%)	55.9	44.1
	55-64	(10.9%)	52.8	47.2
	65 and over	(7.7%)	51.5	48.5
Sex	Male	(74.4%)	57.5	42.5
	Female	(25.6%)	49.2	50.8
Race	White	(98.5%)	55.6	44.4
Education	Grade School	(4.6%)	44.2	55.8
	High School	(49.9%)	53.8	46.2
	Post HS-College	(45.4%)	59.0	41.0
Occupation	Prof-Tec	(33.8%)	60.5	39.5
	Farm	(9.4%)	59.5	40.5
	Craft	(18.5%)	56.0	44.0
	Self-Emp.	(10.2%)	50.6	49.4
	Retired	(13.5%)	47.5	52.5
Income	Under $5,000	(3.9%)	45.9	54.1
	$5,000-$7,499	(6.8%)	48.5	51.5
	$7,500-$9,999	(12.5%)	51.3	48.7
	$10,000-$14,999	(25.2%)	55.7	44.3
	$15,000-$19,999	(23.0%)	54.9	45.1
	$20,000-$29,999	(19.0%)	58.6	41.4
	$30,000-over	(9.6%)	62.0	38.0

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 31

THE EXTENT OF AGREEMENT THAT ARKANSAS NEEDS BETTER CONNECTING ROADS FROM INTERSTATE-FREEWAY TYPE HIGHWAYS TO RECREATIONAL AREAS BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Origin of Trip	In-state	(55.9%)*	30.9	69.1
	Border-state	(26.8%)	37.6	62.4
	Other-state	(17.3%)	44.2	55.8
Destination of Trip	In-state	(91.0%)	33.8	66.2
	Border-state	(4.1%)	49.2	50.8
	Other-state	(5.0%)	35.8	64.2
Purpose of Trip	Outdoor Rec.	(74.5%)	34.9	65.1
Duration of Trip	No Nights	(17.5%)	29.7	70.3
	1-2 Nights	(23.8%)	28.9	71.1
	3-5 Nights	(26.0%)	37.8	62.2
	6-15 Nights	(24.8%)	37.4	62.6
	16-More Nights	(7.9%)	46.9	53.1
Mode of Transportation	Auto-No Equip.	(25.2%)	28.9	71.1
	Auto-Equip.	(62.6%)	37.6	62.4
	Motor Home	(8.7%)	32.6	67.4
Number of Persons on Trip	1	(4.6%)	43.6	56.4
	2	(36.8%)	34.6	65.4
	3-5	(49.6%)	33.4	66.6
	6-more	(9.0%)	40.0	60.0
Round Trip Distance	Up to 200 miles	(45.9%)	29.2	70.8
	200-399 Miles	(14.9%)	37.2	62.8
	400-599 Miles	(10.3%)	37.4	62.6
	600-799 Miles	(5.1%)	34.9	65.1
	800-999 Miles	(5.0%)	41.5	58.5
	1,000-1,999 Miles	(10.9%)	44.1	55.9
	2,000-over	(7.9%)	47.2	52.8
Primary Type of Lodging	None	(18.6%)	30.8	69.2
	Camping	(72.1%)	36.5	63.5
Previous Visitor	Yes	(66.1%)	32.9	67.1
	No	(33.9%)	38.1	61.9

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

Exhibit 31 shows that proportionately more recreationists agree that Arkansas needs better connecting roads to recreational areas than interstate-freeway type highways. Such a preference was evidenced by those whose trip origin was in-state; duration of trip was shorter; mode of transportation was auto with no camping equipment; round-trip distance was shorter; and where traveler was a previous visitor.

4.2.6 Needs for Better Connecting Roads by Selected Demographic Characteristics. Exhibit 32 provides insight into the relationship of demographic characteristics to the extent of agreement concerning whether Arkansas needs better connecting roads. All sub-categories of each characteristic agreed in an approximate two-to-one ratio that Arkansas needs better connecting roads. Greater degrees of agreement for better connecting roads tended to be by those in the 18-24-year age bracket, those whose educational attainment was grade school or less, and those whose income level was lower.

In conclusion, the attitude of outdoor recreationists seems to be that direct access to interstate-freeway type highways is really not very important. The more predominant view is that convenient access is desirable and that better connecting roads to recreational areas are needed. This seems to be the predominant view regardless of trip or demographic characteristics.

4.3 Traveler Attitude Concerning Site Selection

The general purpose of this section is to evaluate the survey results concerning the relative importance of access to interstate-freeway type highways and the area itself in the selection of an outdoor recreational site. In the earlier section providing a general overview of the survey results, it was shown in Exhibits 13 and 14 that it is the area itself that is more important to outdoor recreationists than is access. The evaluation to follow will provide additional insight into this matter.

EXHIBIT 32

THE EXTENT OF AGREEMENT THAT ARKANSAS NEEDS BETTER CONNECTING ROADS FROM INTERSTATE-FREEWAY TYPE HIGHWAYS TO RECREATIONAL AREAS BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Household Head	Yes	(78.4%)*	35.4	64.6
	No	(21.6%)	32.2	67.8
Age	Under 18	(3.4%)	33.3	66.7
	18-24	(10.8%)	24.7	75.3
	25-34	(25.8%)	39.0	61.0
	35-44	(24.2%)	36.8	63.3
	45-54	(17.2%)	33.8	66.2
	55-64	(10.9%)	31.9	68.1
	65 and over	(7.7%)	37.3	62.7
Sex	Male	(74.4%)	35.8	64.2
	Female	(25.6%)	32.1	67.9
Race	White	(98.5%)	34.8	65.2
Education	Grade School	(4.6%)	27.5	72.5
	High School	(49.9%)	32.3	67.7
	Post HS-College	(45.4%)	38.6	61.4
Occupation	Prof-Tec	(33.8%)	39.3	60.7
	Farm	(9.4%)	31.4	68.6
	Craft	(18.5%)	36.2	63.8
	Self-Emp.	(10.2%)	33.9	66.1
	Retired	(13.5%)	29.0	71.0
Income	Under $5,000	(3.9%)	29.0	71.0
	$5,000-$7,499	(6.8%)	35.2	64.8
	$7,500-$9,999	(12.5%)	25.0	75.0
	$10,000-$14,999	(25.2%)	35.5	64.5
	$15,000-$19,999	(23.0%)	32.0	68.0
	$20,000-$29,999	(19.0%)	40.0	60.0
	$30,000-over	(9.6%)	44.4	55.6

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

A crosstabulation of the importance of area relative to the importance of access in site choice is shown in Exhibit 33. As shown in this exhibit, 48.6 percent of those giving importance to area also give importance to access in site choice, while 93.6 percent of those giving importance to access also give importance to area in site choice. Consequently, those more concerned about access tend also to be concerned about area in choosing a recreational site. In contrast, a slight majority of those concerned about area in choice of site attach little or no importance to access. This further strengthens the point that it is the area itself that is more important.

Since the area itself seems more important, a further evaluation was made comparing those giving area importance to those not giving area importance with regard to several selected traveler attitudes.

Exhibit 34 displays the comparative degrees of agreement and disagreement regarding these attitudes. Surprisingly, greater importance was given to area by those tending to agree that Arkansas needs more interstate-freeway type highways serving its outdoor recreational areas. Those who considered the area as important also were tending to agree that Arkansas needs better connecting roads from interstate-freeway type highways to recreational areas. Consequently, those that place importance upon area also place importance upon good access to recreational sites.

The survey found that the importance given to area in site choice tended to increase the greater the number of facilities available in the site. This is shown in Appendix Table A-35. On the other hand, there was no clear-cut relationship regarding the importance given to access in site choice when consideration is given to number of facilities available. The number of facilities available is an important dimension of making the area itself important in site selection.

EXHIBIT 33

CROSSTABULATION OF IMPORTANCE OF AREA
AND ACCESS IN SITE CHOICE

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR07				
NOT IMPORTNT	1.	177	47	224
		79.0	21.0	13.6
		19.5	6.4	
		10.7	2.9	
IMPORTNT	2.	731	692	1423
		51.4	48.6	86.4
		80.5	93.6	
		44.4	42.0	
	COLUMN TOTAL	908	739	1647
		55.1	44.9	100.0

Source: Survey conducted by the Authors.

EXHIBIT 34

ATTITUDE COMPARISONS BETWEEN THOSE EXPRESSING THAT IN THE SELECTION OF A SITE THE AREA ITSELF IS IMPORTANT AND THOSE EXPRESSING IT IS NOT IMPORTANT

Attitudes	Those Indicating Area Is Not Important				Those Indicating Area Is Important			
	Strongly Disagree	Disagree	Agree	Strongly Agree	Strongly Disagree	Disagree	Agree	Strongly Agree
Arkansas needs more interstate-freeway type highways serving its outdoor recreational areas.	24.5%	40.0%	30.5%	5.0%	13.4%	40.6%	36.5%	9.5%
Arkansas needs better connecting roads from interstate-freeway type highways to recreational areas.	15.8%	36.7%	38.0%	9.5%	4.8%	27.2%	50.6%	17.4%
This area needs more traveler services such as restaurants, motels, service stations, and the like.	24.7%	45.3%	25.6%	4.5%	15.8%	42.8%	29.4%	12.0%

Source: Survey conducted by the Authors.

As for the weekend compared to the weekday visitor, no significant differences were found in the importance attached to either area or access in site selection. The weekend and weekday visitors were essentially the same regarding their attitude on this matter. This can be seen in Appendix Table A-36.

It is interesting to note that scenic highways enroute to a site are more important to those also giving importance to area in site selection. On the other hand, scenic highways are not particularly important to those also giving importance to access in site selection. Those that give importance to area and to access tend also to give importance to directness to destination and to availability of traveler services. These are traveler attitudes which influence route selection and will be treated in greater detail in a later section.

The remainder of this section provides a summary comparison of the trip characteristics and the demographic characteristics of those indicating importance and no importance to area and to access in site selection. Exhibit 35 displays the proportions indicating importance and no importance of access by trip characteristics. Exhibit 36 displays the proportions indicating importance and no importance of area by trip characteristics.

A comparative evaluation of these two exhibits indicates the following generalizations. Area is more important in site selection for out-of-state relative to in-state travelers. In contrast, access is less important for all categories of trip origin, but is somewhat more important relatively speaking for out-of-state in contrast to in-state travelers. As for destination of trip, no significant differences were found between the various destination groups as to importance given to either access or area in site selection.

EXHIBIT 35

THE IMPORTANCE OF ACCESS TO INTERSTATE-FREEWAY TYPE HIGHWAYS IN THE SELECTION OF AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Origin of Trip	In-state	(55.9%)*	58.3	41.7
	Border-state	(26.8%)	51.5	48.5
	Other-state	(17.3%)	51.2	48.8
Destination of Trip	In-state	(91.0%)	55.9	44.1
	Border-state	(4.1%)	48.3	51.7
	Other-state	(5.0%)	47.9	52.1
Purpose of Trip	Outdoor Rec.	(74.5%)	57.5	42.5
Duration of Trip	No Nights	(17.5%)	56.8	43.2
	1-2 Nights	(23.8%)	55.2	44.8
	3-5 Nights	(26.0%)	56.5	43.5
	6-15 Nights	(24.8%)	56.4	43.6
	16-More Nights	(7.9%)	45.1	54.9
Mode of Transportation	Auto-No Equip.	(25.2%)	57.5	42.5
	Auto-Equip.	(62.6%)	56.4	43.6
	Motor Home	(8.7%)	43.6	56.4
Number of Persons on Trip	1	(4.6%)	62.7	37.3
	2	(36.8%)	56.5	43.5
	3-5	(49.6%)	55.0	45.0
	6-more	(9.0%)	48.7	51.3
Round Trip Distance	Up to 200 Miles	(45.9%)	55.7	44.3
	200-399 Miles	(14.9%)	65.2	34.8
	400-599 Miles	(10.3%)	55.0	45.0
	600-799 Miles	(5.1%)	53.6	46.4
	800-999 Miles	(5.0%)	53.7	46.3
	1,000-1,999 Miles	(10.9%)	55.8	44.2
	2,000-over	(7.9%)	40.5	59.5
Primary Type of Lodging	None	(18.6%)	58.7	41.3
	Camping	(72.1%)	55.6	44.4
Previous Visitor	Yes	(66.1%)	59.5	40.5
	No	(33.9%)	46.4	53.6

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 36

THE IMPORTANCE OF THE AREA ITSELF IN THE SELECTION OF AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Proportion Indicating Important (%)
Origin of Trip	In-state	(55.9%)*	15.2	84.8
	Border-state	(26.8%)	11.4	88.6
	Other-state	(17.3%)	9.2	90.8
Destination of Trip	In-state	(91.0%)	13.2	86.8
	Border-state	(4.1%)	10.0	90.0
	Other-state	(5.0%)	8.2	91.8
Purpose of Trip	Outdoor Rec.	(74.5%)	13.1	86.9
Duration of Trip	No Nights	(17.5%)	13.1	86.4
	1-2 Nights	(23.8%)	13.5	86.5
	3-5 Nights	(26.0%)	15.9	84.1
	6-15 Nights	(24.8%)	11.7	88.3
	16-More Nights	(7.9%)	10.0	90.0
Mode of Transportation	Auto-No Equip.	(25.2%)	14.4	85.6
	Auto-Equip.	(62.6%)	12.2	87.8
	Motor Home	(8.7%)	13.9	86.1
Number of Persons on Trip	1	(4.6%)	13.2	86.8
	2	(36.8%)	12.6	87.4
	3-5	(49.6%)	12.9	87.1
	6-more	(9.0%)	18.0	82.0
Round Trip Distance	Up to 200 Miles	(45.9%)	14.5	85.5
	200-399 Miles	(14.9%)	17.1	82.9
	400-599 Miles	(10.3%)	11.8	88.2
	600-799 Miles	(5.1%)	14.1	85.9
	800-999 Miles	(5.0%)	7.2	92.8
	1,000-1,999 Miles	(10.9%)	11.1	88.9
	2,000-over	(7.9%)	7.7	92.3
Primary Type of Lodging	None	(18.6%)	14.4	85.6
	Camping	(72.1%)	12.8	87.2
Previous Visitor	Yes	(66.1%)	14.3	85.7
	No	(33.9%)	11.4	88.6

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

With regard to purpose of trip, there were no significant differences between the groups concerning importance of area in site choice. On the other hand, more importance was given to access by those visiting friends than by those having any other expressed purpose.

As for the duration of trip, the number of persons on trip, and the type of lodging, no significant differences were found. On the other hand, very minor but still significant differences were found concerning mode of transportation relative to importance of area in site choice. Those giving greater importance to access in site choice among the modes of transportation were: motor home, bus, and air. However, these were a relatively small segment of those surveyed.

Even though no significant differences were found regarding importance of area in site selection by those traveling various round-trip distances, there were significant differences regarding the importance of access. Less relative importance seemed to be displayed to access by those traveling 200-399 miles. In contrast, the only distance category where a majority indicated importance to access was that of those traveling 2,000 miles or over.

Finally, on the matter of trip characteristics, those having visited the site before were not significantly different from those not visiting the site before in the importance attached to area in site selection. In contrast, access was found to be relatively more important to those not having visited the site previously.

Exhibits 37 and 38 show the proportions indicating importance and no importance to area and to access in site selection by demographic characteristics. There were no significant differences found between the importance attributed to access and to area by sub-categories of the following demographic characteristics: whether household head, race, and level of

EXHIBIT 37

THE IMPORTANCE OF ACCESS TO INTERSTATE-FREEWAY TYPE HIGHWAYS IN THE SELECTION OF AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating	
			Not Important (%)	Important (%)
Household Head	Yes	(78.4%)*	55.9	44.1
	No	(21.6%)	53.8	46.2
Age	Under 18	(3.4%)	64.9	35.1
	18-24	(10.8%)	51.4	48.6
	25-34	(25.8%)	58.6	41.4
	35-44	(24.2%)	58.3	41.7
	45-54	(17.2%)	50.7	49.3
	55-64	(10.9%)	54.2	45.8
	65 and over	(7.7%)	50.4	49.6
Sex	Male	(74.4%)	57.4	42.6
	Female	(25.6%)	49.4	50.6
Race	White	(98.5%)	55.5	44.5
Education	Grade School	(4.6%)	61.0	39.0
	High School	(49.9%)	53.8	46.2
	Post HS-College	(45.4%)	56.8	43.2
Occupation	Prof-Tec	(33.8%)	60.1	39.9
	Farm	(9.4%)	63.3	36.7
	Craft	(18.5%)	54.8	45.2
	Self-Emp.	(10.2%)	52.9	47.1
	Retired	(13.5%)	47.8	52.2
Income	Under $5,000	(3.9%)	54.8	45.2
	$5,000-$7,499	(6.8%)	52.4	47.6
	$7,500-$9,999	(12.5%)	54.0	46.0
	$10,000-$14,999	(25.2%)	55.6	44.4
	$15,000-$19,999	(23.0%)	55.1	44.9
	$20,000-$29,999	(19.0%)	59.9	40.1
	$30,000-over	(9.6%)	57.8	42.2

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 38

THE IMPORTANCE OF THE AREA ITSELF IN THE SELECTION OF AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Household Head	Yes	(78.4%)*	14.2	85.8
	No	(21.6%)	9.9	90.1
Age	Under 18	(3.4%)	17.9	82.1
	18-24	(10.8%)	7.2	92.8
	25-34	(25.8%)	12.1	87.9
	35-44	(24.2%)	15.4	84.6
	45-54	(17.2%)	12.9	87.1
	55-64	(10.9%)	11.0	89.0
	65 and over	(7.7%)	18.9	81.1
Sex	Male	(74.4%)	14.4	85.6
	Female	(25.6%)	9.7	90.3
Race	White	(98.5%)	13.2	86.8
Education	Grade School	(4.6%)	17.1	82.9
	High School	(49.9%)	13.7	86.3
	Post HS-College	(45.4%)	12.2	87.6
Occupation	Prof-Tec	(33.8%)	12.6	87.4
	Farm	(9.4%)	16.1	83.9
	Craft	(18.5%)	10.9	89.1
	Self-Emp.	(10.2%)	15.5	84.5
	Retired	(13.5%)	14.0	86.0
Income	Under $5,000	(3.9%)	22.0	78.0
	$5,000-$7,499	(6.8%)	18.3	81.7
	$7,500-$9,999	(12.5%)	11.1	88.9
	$10,000-$14,999	(25.2%)	9.9	90.1
	$15,000-$19,999	(23.0%)	12.9	87.1
	$20,000-$29,999	(19.0%)	12.1	87.9
	$30,000-over	(9.6%)	20.4	79.6

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

education. However, in the comparison of these and other demographic characteristics, a significantly greater proportion in each category gave greater importance to area than they did to access in the selection of a recreational site.

The comparisons that were most significant are summarized herebelow. There was some greater degree of importance given to area by the 18-24 age group than was given by other age groups, while a lesser degree of importance was given to area by the under-18 and the over-65 age groups. There were no significant differences between the attitude of the various age groups or to the importance of access in site choice.

When sex of the recreationists was considered, it was found that more importance relatively speaking was given to both area and to access in site selection by females than was given by males. Significantly, both sexes gave greater importance to area than to access in this matter.

While there were no significant differences among the classifications of occupations regarding importance of area in site choice, the retired persons and the clerical workers tended to give more importance to access than did other occupation groups. On the other hand, farmers tended to give relatively less importance to access. Perhaps more important, however, is the significantly greater proportion of all occupation groups that gave importance to area than was given to access in choice of site.

Finally, on the matter of demographic characteristics, there were no significant differences between income classifications concerning the importance of access. Significantly, concerning area, there was some tendency for middle income classes to attach more importance to area in site choice than lower or higher income classes.

In conclusion, the differences cited above among the various trip and demographic characteristics really are just minor degrees of difference in

attitude. The basic conclusion is that area is overwhelmingly more important than is access in site selection. Even where some sub-group gave relatively more importance to access than any other sub-group, in almost all cases, that sub-group still gave significantly more importance to area than to access.

Exhibits 39 and 40 provide some insight into specifically the distance the recreationist is willing to travel from interstate-freeway type highways to a site for outdoor recreation. Exhibit 39 shows this related to importance of access and Exhibit 40 shows this relative to importance of the area in site choice. The general patterns are as would be expected with greater importance given to access by those willing to drive shorter distances. Even though the contrast is not so pronounced, there is some tendency for area to be of greater relative importance the farther the distance the recreationist will travel from an interstate. In an absolute sense, a significantly greater proportion of all travel distance sub-groups give importance to area than give importance to access in site choice.

Exhibit 39 provides a specific quantity dimension to the qualitative expressions of importance of access in site choice. Nearly 50% of those attributing importance to access in site choice said the maximum distance they would travel from an interstate was 25 miles or less, and only about 17 percent of those attributing importance to access indicated they would travel 10 miles or less. Consequently, a substantial portion of those giving importance to access are actually willing to drive some distance from the interstate in order to reach a recreational site. When this is considered in conjunction with the earlier evaluation of greater relative importance of area and with the relatively strong desire for good connecting

EXHIBIT 39

DISTANCE RECREATIONIST WILL TRAVEL FROM
INTERSTATE BY IMPORTANCE OF ACCESS IN SITE CHOICE

VAR02		VAR06 1. NOT IMPORTNT	2. LITTLE IMPORTNT	3. SOME IMPORTNT	4. GREAT IMPORTNT	ROW TOTAL
1. 0-10	COUNT	12	16	56	59	143
	ROW PCT	8.4	11.2	39.2	41.3	8.5
	COL PCT	2.9	3.1	9.4	37.6	
	TOT PCT	0.7	1.0	3.3	3.5	
2. 11-25	COUNT	33	119	200	51	403
	ROW PCT	8.2	29.5	49.6	12.7	24.0
	COL PCT	8.0	23.1	33.5	32.5	
	TOT PCT	2.0	7.1	11.9	3.0	
3. 26-50	COUNT	96	173	216	32	517
	ROW PCT	18.6	33.5	41.8	6.2	30.8
	COL PCT	23.4	33.5	36.2	20.4	
	TOT PCT	5.7	10.3	12.9	1.9	
4. 51-100	COUNT	92	105	76	9	282
	ROW PCT	32.6	37.2	27.0	3.2	16.8
	COL PCT	22.4	20.3	12.7	5.7	
	TOT PCT	5.5	6.3	4.5	0.5	
5. OVER 100MILES	COUNT	177	103	49	6	335
	ROW PCT	52.8	30.7	14.6	1.8	19.9
	COL PCT	43.2	20.0	8.2	3.8	
	TOT PCT	10.5	6.1	2.9	0.4	
COLUMN TOTAL		410	516	597	157	1680
		24.4	30.7	35.5	9.3	100.0

Source: Survey conducted by the Authors.

EXHIBIT 40

DISTANCE RECREATIONIST WILL TRAVEL FROM
INTERSTATE BY IMPORTANCE OF AREA IN SITE CHOICE

VAR02		VAR07 1. NOT IMPORTNT	2. LITLE IMPORTNT	3. SOME IMPORTNT	4. GREAT IMPORTNT	ROW TOTAL
1.		5	7	46	86	144
0-10	MILES	3.5	4.9	31.9	59.7	8.6
		4.8	5.9	11.9	8.1	
		0.3	0.4	2.8	5.1	
2.		16	33	117	240	406
11-25	MILES	3.9	8.1	28.8	59.1	24.3
		15.2	28.0	30.3	22.6	
		1.0	2.0	7.0	14.4	
3.		29	36	141	305	511
26-50	MILES	5.7	7.0	27.6	59.7	30.6
		27.6	30.5	36.5	28.7	
		1.7	2.2	8.4	18.3	
4.		19	25	58	181	283
51-100	MILES	6.7	8.8	20.5	64.0	16.9
		18.1	21.2	15.0	17.0	
		1.1	1.5	3.5	10.8	
5.		36	17	24	250	327
OVER 100MILES		11.0	5.2	7.3	76.5	19.6
		34.3	14.4	6.2	23.5	
		2.2	1.0	1.4	15.0	
COLUMN TOTAL		105	118	386	1062	1671
		6.3	7.1	23.1	63.6	100.0

Source: Survey conducted by the Authors.

roads, the conclusion seems to be clear that outdoor recreationists do not strongly prefer that interstate-freeway type highways be built close to recreation sites. Their preference is actually for good secondary roads leading to recreational areas, which is a conclusion reached in the section concerned with route selection.

4.4 Traveler Attitudes Concerning Route Selection

The survey provides data which makes possible the evaluation of traveler attitudes concerning route selection. The importance of such things as interstate-freeway type highways, all-weather (secondary) roads, scenic highways, directness to destination, and availability of traveler services is analyzed relative to route selection. Exhibits 14-18 provide insight into these aspects of route selection. The purpose of this section is to provide greater detail regarding the trip characteristics and demographic characteristics of those who give importance or no importance to the above listed aspects of route selection.

Before attention is turned to trip and demographic characteristics, it is informative to compare the aspects of route selection with the importance attributed to the recreation area itself in site selection. Exhibit 41 compares those selecting a route on the basis that area is important or not important and it relates route selection to different highway characteristics. This exhibit indicates that the majority of those saying that area is important and those saying area is not important in selecting a route do not consider the interstate-freeway type highways leading to area as an important factor. However, a significantly larger proportion of those saying area is not important give no importance to interstates than those saying area is important. All this is in contrast to the other four aspects

EXHIBIT 41

ATTITUDE COMPARISONS BETWEEN THOSE EXPRESSING THAT IN THE SELECTION OF A ROUTE THE AREA ITSELF IS IMPORTANT AND THOSE EXPRESSING IT IS NOT IMPORTANT BY SEVERAL HIGHWAY CHARACTERISTICS

Highway Characteristics	Those Indicating Area Is Not Important				Those Indicating Area Is Important			
	Not Important	Little Importance	Important	Great Importance	Not Important	Little Importance	Important	Great Importance
Interstate-freeway type highways leading to area	43.6%	34.9%	15.6%	6.0%	22.4%	30.7%	35.5%	11.4%
All-weather (secondary) roads leading to area	14.0%	8.1%	29.3%	48.6%	1.9%	6.1%	35.7%	56.3%
Scenic nature of highway	19.4%	9.5%	28.8%	42.3%	3.4%	13.2%	40.2%	43.2%
Directness to destination	19.0%	22.7%	35.6%	22.7%	5.4%	20.8%	42.6%	31.2%
Availability of traveler services	26.0%	16.9%	37.4%	19.6%	9.6%	20.3%	40.7%	29.4%

Source: Survey conducted by the Authors.

of highway characteristics. A greater importance was given to the other four highway characteristics in selecting a route. Of particular interest were the larger relative percentages expressing great importance for availability of all-weather (secondary) roads leading to the area. In conclusion, interstate-freeway type highways were not ranked as very important in route selection, while all-weather roads, scenic highways, directness, and availability of traveler services were all given a great deal of importance regardless of the traveler's view concerning area.

Exhibits 42 through 51 provide a great deal of detailed insight concerning traveler attitude about route selection. They relate the trip and demographic characteristics to the highway characteristics. The general conclusion that can be made with regard to route selection is that interstate-freeway type highways leading to recreational areas are the least important determinants in route selection, but the all-weather (secondary) roads leading to area are the most important factors. Also ranked very high in importance is the scenic nature of highways leading to area. This is consistent with the finding earlier in this report where access to interstate-freeway type highways was reported as less important than other factors in site selection. These exhibits indicate interstates are also relatively lower in importance in route selection as well.

With the major conclusion already being reported above, the rest of this section will briefly provide an evaluation of the trip and demographic characteristics found to be significantly different as to the degree of importance given to the various highway characteristics as they relate to route selection.

Exhibit 42 lists the various trip characteristics and the proportion for each indicating importance or no importance of interstate in route choice. Significant differences were found as follows: greater relative importance was indicated by those whose origin was from out of state, those who had a round-trip distance greater than 400 miles, those whose primary type of lodging was camping, and those who had not visited previously.

As for the demographic characteristics of those indicating greater relative importance of interstate in route choice, Exhibit 43 is informative. Great relative importance for interstates was indicated by those 18-24 and 45-54 years of age, and those who were females. There were no significant differences found for other demographic characteristics.

Exhibit 44 shows the various trip characteristics and the proportion for each indicating importance or no importance of all-weather (secondary) roads leading to area in choice of route. The significant differences discovered were as follows: greater relative importance was indicated by those whose destination was out of state, those whose mode of transportation was motor home, those with more than one person on trip, and those with longer round-trip distances.

Exhibit 45 displays the proportion indicating importance or no importance of all-weather roads in route choice by demographic characteristics. Significant differences were indicated such that greater relative importance was given by those who were older, those who were professional technical, craftsmen, or retired, and those above $5,000 of family income.

The importance of scenic highways in route choice is shown in terms of trip characteristics in Exhibit 46. Significant differences among those giving greater importance to scenic highways was shown by those whose origins were from out of state, those whose destination was in border states, those

EXHIBIT 42

THE IMPORTANCE OF INTERSTATE-FREEWAY TYPE HIGHWAYS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Origin of Trip	In-state	(55.9%)*	61.7	38.3
	Border-state	(26.8%)	51.5	48.5
	Other-state	(17.3%)	48.0	52.0
Destination of Trip	In-state	(91.0%)	57.0	43.0
	Border-state	(4.1%)	49.2	50.8
	Other-state	(5.0%)	52.1	47.9
Purpose of Trip	Outdoor Rec.	(74.5%)	57.3	42.7
Duration of Trip	No Nights	(17.5%)	59.7	40.3
	1-2 Nights	(23.8%)	54.6	45.4
	3-5 Nights	(26.0%)	58.2	41.8
	6-15 Nights	(24.8%)	55.2	44.8
	16-More Nights	(7.9%)	55.0	45.0
Mode of Transportation	Auto-No Equip.	(25.2%)	56.9	43.1
	Auto-Equip.	(62.6%)	58.4	41.6
	Motor Home	(8.7%)	45.3	54.7
Number of Persons on Trip	1	(4.6%)	59.7	40.3
	2	(36.8%)	58.1	41.9
	3-5	(49.6%)	56.2	43.8
	6-more	(9.0%)	50.7	49.3
Round Trip Distance	Up to 200 Miles	(45.9%)	58.3	41.7
	200-399 Miles	(14.9%)	66.8	33.2
	400-599 Miles	(10.3%)	48.8	51.2
	600-799 Miles	(5.1%)	52.4	47.6
	800-999 Miles	(5.0%)	51.2	48.8
	1,000-1,999 Miles	(10.9%)	52.5	47.5
	2,000-over	(7.9%)	50.4	49.6
Primary Type of Lodging	None	(18.6%)	62.0	38.0
	Camping	(72.1%)	56.5	43.3
Previous Visitor	Yes	(66.1%)	59.9	40.1
	No	(33.9%)	49.5	50.5
Time	Weekend	(49.0%)	56.5	43.5
	Weekday	(51.0%)	56.8	43.2

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 43

THE IMPORTANCE OF INTERSTATE-FREEWAY TYPE HIGHWAYS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Household Head	Yes	(78.4%)*	57.4	42.6
	No	(21.6%)	53.4	46.6
Age	Under 18	(3.4%)	62.7	37.3
	18-24	(10.8%)	47.8	52.2
	25-34	(25.8%)	64.7	35.3
	35-44	(24.2%)	57.1	42.9
	45-54	(17.2%)	48.8	51.2
	55-64	(10.9%)	56.4	43.6
	65 and over	(7.7%)	54.8	45.2
Sex	Male	(74.4%)	59.1	40.9
	Female	(25.6%)	49.0	51.0
Race	White	(98.5%)	56.6	43.4
Education	Grade School	(4.6%)	56.8	43.2
	High School	(49.9%)	56.9	43.1
	Post HS-College	(45.4%)	56.5	43.5
Occupation	Prof-Tec	(33.8%)	59.5	40.5
	Farm	(9.4%)	58.7	41.3
	Craft	(18.5%)	53.0	47.0
	Self-Emp.	(10.2%)	56.0	44.0
	Retired	(13.5%)	52.8	47.2
Income	Under $5,000	(3.9%)	62.1	37.9
	$5,000-$7,499	(6.8%)	55.6	44.4
	$7,500-$9,999	(12.5%)	54.8	45.2
	$10,000-$14,999	(25.2%)	57.0	43.0
	$15,000-$19,999	(23.0%)	53.6	46.4
	$20,000-$29,999	(19.0%)	59.2	40.8
	$30,000-over	(9.6%)	58.8	41.2

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 44

THE IMPORTANCE OF ALL-WEATHER (SECONDARY) ROADS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Origin of Trip	In-state	(55.9%)*	11.2	88.8
	Border-state	(26.8%)	7.9	92.1
	Other-state	(17.3%)	8.1	91.9
Destination of Trip	In-state	(91.0%)	10.1	89.9
	Border-state	(4.1%)	6.7	93.3
	Other-state	(5.0%)	0.0	100.0
Purpose of Trip	Outdoor Rec.	(74.5%)	9.5	90.5
Duration of Trip	No Nights	(17.5%)	13.7	86.3
	1-2 Nights	(23.8%)	9.6	90.4
	3-5 Nights	(26.0%)	10.2	89.8
	6-15 Nights	(24.8%)	8.6	91.4
	16-More Nights	(7.9%)	5.3	94.7
Mode of Transportation	Auto-No Equip.	(25.2%)	13.1	86.9
	Auto-Equip.	(62.6%)	9.2	90.8
	Motor Home	(8.7%)	6.3	93.7
Number of Persons on Trip	1	(4.6%)	25.6	74.4
	2	(36.8%)	10.9	89.1
	3-5	(49.6%)	7.1	92.9
	6-more	(9.0%)	14.0	86.0
Round Trip Distance	Up to 200 Miles	(45.9%)	12.6	87.4
	200-399 Miles	(14.9%)	6.9	93.1
	400-599 Miles	(10.3%)	9.4	90.6
	600-799 Miles	(5.1%)	7.1	92.9
	800-999 Miles	(5.0%)	13.6	86.4
	1,000-1,999 Miles	(10.9%)	6.1	93.9
	2,000-over	(7.9%)	7.6	92.4
Primary Type of Lodging	None	(18.6%)	13.4	86.6
	Camping	(72.1%)	9.0	91.0
Previous Visitor	Yes	(66.1%)	10.8	89.2
	No	(33.9%)	8.6	91.4
Time	Weekend	(49.0%)	8.9	91.1
	Weekday	(51.0%)	11.2	88.8

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 45

THE IMPORTANCE OF ALL-WEATHER (SECONDARY) ROADS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Proportion Indicating Important (%)
Household Head	Yes	(78.4%)*	10.4	89.6
	No	(21.6%)	9.0	91.0
Age	Under 18	(3.4%)	18.6	81.4
	18-24	(10.8%)	11.1	88.9
	25-34	(25.8%)	13.0	87.0
	35-44	(24.2%)	8.3	91.7
	45-54	(17.2%)	7.4	92.6
	55-64	(10.9%)	7.8	92.2
	65 and over	(7.7%)	9.0	91.0
Sex	Male	(74.4%)	10.6	89.4
	Female	(25.6%)	8.4	91.6
Race	White	(98.5%)	9.8	90.2
Education	Grade School	(4.6%)	14.3	85.7
	High School	(49.9%)	10.9	89.1
	Post HS-College	(45.4%)	8.8	91.2
Occupation	Prof-Tec	(33.8%)	6.7	93.3
	Farm	(9.4%)	17.3	82.7
	Craft	(18.5%)	9.9	90.1
	Self-Emp.	(10.2%)	14.7	85.3
	Retired	(13.5%)	8.1	91.9
Income	Under $5,000	(3.9%)	22.0	78.0
	$5,000-$7,499	(6.8%)	9.9	90.1
	$7,500-$9,999	(12.5%)	12.6	87.4
	$10,000-$14,999	(25.2%)	7.5	92.5
	$15,000-$19,999	(23.0%)	9.0	91.0
	$20,000-$29,999	(19.0%)	9.4	90.6
	$30,000-over	(9.6%)	11.4	88.6

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 46

THE IMPORTANCE OF SCENIC HIGHWAYS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Proportion Indicating Important (%)
Origin of Trip	In-state	(55.9%)*	21.3	78.7
	Border-state	(26.8%)	14.4	85.6
	Other-state	(17.3%)	12.7	87.3
Destination of Trip	In-state	(91.0%)	18.4	81.6
	Border-state	(4.1%)	5.0	95.0
	Other-state	(5.0%)	15.1	84.9
Purpose of Trip	Outdoor Rec.	(74.5%)	18.5	81.5
Duration of Trip	No Nights	(17.5%)	20.1	79.9
	1-2 Nights	(23.8%)	17.9	82.1
	3-5 Nights	(26.0%)	21.1	78.9
	6-15 Nights	(24.8%)	16.4	83.6
	16-More Nights	(7.9%)	7.6	92.4
Mode of Transportation	Auto-No Equip.	(25.2%)	13.1	86.9
	Auto-Equip.	(62.6%)	9.2	90.8
	Motor Home	(8.7%)	6.3	93.7
Number of Persons on Trip	1	(4.6%)	31.2	68.8
	2	(36.8%)	18.5	81.5
	3-5	(49.6%)	16.7	83.3
	6-more	(9.0%)	17.4	82.6
Round Trip Distance	Up to 200 Miles	(45.9%)	22.0	78.0
	200-399 Miles	(14.9%)	24.1	75.9
	400-599 Miles	(10.3%)	12.9	87.1
	600-799 Miles	(5.1%)	7.1	92.9
	800-999 Miles	(5.0%)	14.6	85.4
	1,000-1,999 Miles	(10.9%)	14.0	86.0
	2,000-over	(7.9%)	6.9	93.1
Primary Type of Lodging	None	(18.6%)	18.4	81.6
	Camping	(72.1%)	17.8	82.2
Previous Visitor	Yes	(66.1%)	19.7	80.3
	No	(33.9%)	15.4	84.6
Time	Weekend	(49.0%)	16.1	83.9
	Weekday	(51.0%)	20.7	79.3

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

whose duration of trip was longer, those with over one person on trip, those whose round-trip distance was over 400 miles, those not a previous visitor, and those who were weekend visitors.

Exhibit 47 shows the demographic characteristics as they relate to the importance or no importance of scenic highways in route choice. There were no significant differences found among those observations. Demographic characteristics apparently do not need to be considered when evaluating the importance of scenic highways to outdoor recreationists.

Exhibit 48 displays the trip characteristics of those indicating greater relative importance of directness to destination in route choice. This was indicated by those with larger numbers of persons on the trip and by those who were weekend visitors. The importance of directness to destination by demographic characteristics is shown in Exhibit 49. The only demographic characteristic displaying significant differences was the larger percentage of females giving importance to directness.

Exhibit 50 lists the various trip characteristics and the proportion for each indicating importance or no importance of services in route selection. Significantly greater importance was indicated by those with the following trip characteristics: one or more nights duration, larger number of persons on trip, not having visited previously, and weekend rather than weekday visitor.

Finally, Exhibit 51 shows the categories of demographic characteristics which gave greater importance to services in route choice. They were those not a household head and those who were females. There were no other significant differences indicated for other demographic characteristics.

In conclusion, interstate-freeway type highways do not seem to be a high priority consideration that is greatly important to the outdoor

EXHIBIT 47

THE IMPORTANCE OF SCENIC HIGHWAYS IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Proportion Indicating Important (%)
Household Head	Yes	(78.4%)*	17.9	82.1
	No	(21.6%)	18.5	81.5
Age	Under 18	(3.4%)	27.6	72.4
	18-24	(10.8%)	15.6	84.4
	25-34	(25.8%)	18.6	81.4
	35-44	(24.2%)	17.8	82.2
	45-54	(17.2%)	19.0	81.0
	55-64	(10.9%)	16.8	83.2
	65 and over	(7.7%)	17.8	82.2
Sex	Male	(74.4%)	18.9	81.1
	Female	(25.6%)	16.2	83.8
Race	White	(98.5%)	18.4	81.6
Education	Grade School	(4.6%)	18.7	81.3
	High School	(49.9%)	18.3	81.7
	Post HS-College	(45.4%)	18.0	82.0
Occupation	Prof-Tec	(33.8%)	16.2	83.8
	Farm	(9.4%)	21.7	78.3
	Craft	(18.5%)	17.1	82.9
	Self-Emp.	(10.2%)	25.3	74.7
	Retired	(13.5%)	17.2	82.8
Income	Under $5,000	(3.9%)	15.5	84.5
	$5,000-$7,499	(6.8%)	15.8	84.2
	$7,500-$9,999	(12.5%)	13.9	86.1
	$10,000-$14,999	(25.2%)	17.8	82.2
	$15,000-$19,999	(23.0%)	19.9	80.1
	$20,000-$29,999	(19.0%)	17.4	82.6
	$30,000-over	(9.6%)	25.5	74.5

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 48

THE IMPORTANCE OF DIRECTNESS TO DESTINATION IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Origin of Trip	In-state	(55.9%)*	26.3	73.7
	Border-state	(26.8%)	29.7	70.3
	Other-state	(17.3%)	31.5	68.5
Destination of Trip	In-state	(91.0%)	28.0	72.0
	Border-state	(4.1%)	26.2	73.8
	Other-state	(5.0%)	34.2	65.8
Purpose of Trip	Outdoor Rec.	(74.5%)	28.5	71.5
Duration of Trip	No Nights	(17.5%)	29.4	70.6
	1-2 Nights	(23.8%)	23.7	76.3
	3-5 Nights	(26.0%)	28.9	71.1
	6-15 Nights	(24.8%)	30.0	70.0
	16-More Nights	(7.9%)	33.6	66.4
Mode of Transportation	Auto-No Equip.	(25.2%)	28.1	71.9
	Auto-Equip.	(62.6%)	26.9	73.1
	Motor Home	(8.7%)	34.8	65.2
Number of Persons on Trip	1	(4.6%)	44.2	55.8
	2	(36.8%)	30.3	69.7
	3-5	(49.6%)	26.0	74.0
	6-more	(9.0%)	24.7	75.3
Round Trip Distance	Up to 200 Miles	(45.9%)	26.2	73.8
	200-399 Miles	(14.9%)	30.5	69.5
	400-599 Miles	(10.3%)	30.0	70.0
	600-799 Miles	(5.1%)	27.1	72.9
	800-999 Miles	(5.0%)	29.6	70.4
	1,000-1,999 Miles	(10.9%)	34.8	65.2
	2,000-over	(7.9%)	27.5	72.5
Primary Type of Lodging	None	(18.6%)	28.9	71.1
	Camping	(72.1%)	28.0	72.0
Previous Visitor	Yes	(66.1%)	29.1	70.9
	No	(33.9%)	27.2	72.8
Time	Weekend	(49.0%)	26.2	73.8
	Weekday	(51.0%)	30.6	69.4

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 49

THE IMPORTANCE OF DIRECTNESS TO DESTINATION IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Household Head	Yes	(78.4%)*	28.6	71.4
	No	(21.6%)	27.0	73.0
Age	Under 18	(3.4%)	35.1	64.9
	18-24	(10.8%)	25.0	75.0
	25-34	(25.8%)	25.0	75.0
	35-44	(24.2%)	29.2	70.8
	45-54	(17.2%)	27.9	72.1
	55-64	(10.9%)	29.2	70.8
	65 and over	(7.7%)	37.4	62.6
Sex	Male	(74.4%)	29.7	70.3
	Female	(25.6%)	24.3	75.7
Race	White	(98.5%)	28.6	71.4
Education	Grade School	(4.6%)	30.1	69.9
	High School	(49.9%)	27.3	72.7
	Post HS-College	(45.4%)	29.7	70.3
Occupation	Prof-Tec	(33.8%)	26.2	73.8
	Farm	(9.4%)	31.8	68.2
	Craft	(18.5%)	28.9	71.1
	Self-Emp.	(10.2%)	27.5	72.5
	Retired	(13.5%)	29.9	70.1
Income	Under $5,000	(3.9%)	30.9	69.1
	$5,000-$7,499	(6.8%)	27.6	72.4
	$7,500-$9,999	(12.5%)	28.7	71.3
	$10,000-$14,999	(25.2%)	28.2	71.8
	$15,000-$19,999	(23.0%)	30.8	69.2
	$20,000-$29,999	(19.0%)	25.7	74.3
	$30,000-over	(9.6%)	31.5	68.5

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 50

THE IMPORTANCE OF AVAILABILITY OF TRAVELER SERVICES IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Important (%)
Origin of Trip	In-state	(55.9%)*	32.9	67.1
	Border-state	(26.8%)	28.2	71.8
	Other-state	(17.3%)	31.2	68.8
Destination of Trip	In-state	(91.0%)	32.5	67.5
	Border-state	(4.1%)	23.3	76.7
	Other-state	(5.0%)	30.1	69.9
Purpose of Trip	Outdoor Rec.	(74.5%)	32.6	67.4
Duration of Trip	No Nights	(17.5%)	37.5	62.5
	1-2 Nights	(23.8%)	27.8	72.2
	3-5 Nights	(26.0%)	34.5	65.5
	6-15 Nights	(24.8%)	28.5	71.5
	16-More Nights	(7.9%)	30.0	70.0
Mode of Transportation	Auto-No Equip.	(25.2%)	33.5	66.5
	Auto-Equip.	(62.6%)	30.8	69.2
	Motor Home	(8.7%)	31.0	69.0
Number of Persons on Trip	1	(4.6%)	46.8	53.2
	2	(36.8%)	34.9	65.1
	3-5	(49.6%)	28.7	71.3
	6-more	(9.0%)	24.5	75.5
Round Trip Distance	Up to 200 Miles	(45.9%)	32.7	67.3
	200-399 Miles	(14.9%)	31.4	68.6
	400-599 Miles	(10.3%)	32.1	67.9
	600-799 Miles	(5.1%)	22.6	77.4
	800-999 Miles	(5.0%)	27.5	72.5
	1,000-1,999 Miles	(10.9%)	35.2	64.8
	2,000-over	(7.9%)	29.0	71.0
Primary Type of Lodging	None	(18.6%)	37.7	62.3
	Camping	(72.1%)	30.5	69.5
Previous Visitor	Yes	(66.1%)	33.6	66.4
	No	(33.9%)	28.6	71.4
Time	Weekend	(49.0%)	28.6	71.4
	Weekday	(51.0%)	34.6	65.4

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

EXHIBIT 51

THE IMPORTANCE OF AVAILABILITY OF TRAVELER SERVICES IN THE SELECTION OF A ROUTE TO AN OUTDOOR RECREATIONAL SITE BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Demographic Characteristics	Predominant Observations		Proportion Indicating Not Important (%)	Proportion Indicating Important (%)
Household Head	Yes	(78.4%)*	33.0	67.0
	No	(21.6%)	25.8	74.2
Age	Under 18	(3.4%)	30.5	69.5
	18-24	(10.8%)	24.7	75.3
	25-34	(25.8%)	31.1	68.9
	35-44	(24.2%)	35.5	64.5
	45-54	(17.2%)	32.7	67.3
	55-64	(10.9%)	29.9	70.1
	65 and over	(7.7%)	32.3	67.7
Sex	Male	(74.4%)	34.1	65.9
	Female	(25.6%)	24.8	75.2
Race	White	(98.5%)	32.0	68.0
Education	Grade School	(4.6%)	31.1	68.9
	High School	(49.9%)	29.7	70.3
	Post HS-College	(45.4%)	33.8	66.2
Occupation	Prof-Tec	(33.8%)	32.9	67.1
	Farm	(9.4%)	34.9	65.1
	Craft	(18.5%)	28.6	71.4
	Self-Emp.	(10.2%)	33.7	66.3
	Retired	(13.5%)	29.4	70.6
Income	Under $5,000	(3.9%)	35.1	64.9
	$5,000-$7,499	(6.8%)	27.0	73.0
	$7,500-$9,999	(12.5%)	28.1	71.9
	$10,000-$14,999	(25.2%)	32.6	67.4
	$15,000-$19,999	(23.0%)	35.8	64.2
	$20,000-$29,999	(19.0%)	30.7	69.3
	$30,000-over	(9.6%)	34.9	65.1

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

recreationist in route choice. The availability of all-weather (secondary) roads leading to area is given greater importance. This is the clear indication since 90.5 percent of those whose purpose is outdoor recreation give importance to all-weather roads, while only 42.7 percent of them give importance to interstate-freeway type highways. In practically all sub-categories of both trip and demographic characteristics, a majority proportion indicates little or no importance of interstates in route choice. The only trip characteristics where a majority indicated interstates were important in route choice were where origin was from other states (52.0%), where destination was in border states (50.8%), where mode of transportation was motor home (54.7%), and where round-trip distance was 400-599 miles. As for demographic characteristics, the importance of interstates in route choice was expressed only by those whose age was 18-24 (52.2%) and 45-54 (51.2%), and by the female respondent (51.0%). In contrast very large majorities of all sub-groups for both trip and demographic characteristics indicated importance of all-weather (secondary) roads in route choice.

4.5 Comparison of Various Types of Outdoor Recreation As to Attitude, Trip Characteristics, and Demographic Characteristics

The main objective of this section is to evaluate the extent to which socio-economic factors influence several selected types of outdoor recreation. An attempt is also made to evaluate the impact of highway access and the recreation site upon each of the selected outdoor recreation types. The types of outdoor recreation activities selected for analysis were: hiking-backpacking, picnicing-sightseeing, hunting, fishing, camping, boating-skiing-swimming, and visiting historical sites. It is hoped that this section can add some insight into the characteristics of the various types of outdoor recreation, especially as they relate to interstate-freeway type highways.

One of the major purposes of this study was to determine the importance of access to interstate-type highways and the importance of the area itself in site choice. Exhibit 52 shows that 55.3 percent say access is of little or no importance while 44.8 percent say it is important in their decision. Interestingly, only 9.3 percent said access was of great importance. In contrast, 86.6 percent said the area itself was important and only 13.4 percent said it was of little or no importance. It is especially noteworthy that while 63.5 percent said the area itself was very important, only 6.3 percent said it was not important. The indication seems clear that it is the area itself that is more important to outdoor recreationists than access. Even though this is the comparative indication, a sizable minority did attribute importance to access in choice of site.

The division of outdoor recreationists into various types of outdoor recreation activities does not add a great deal of information. The data does not indicate a great deal of variation in attitude about the relative importance of access and area among the recreation types. The major differences seem to be that hiking-backpackers give relatively less importance to access and relatively more to area; hunters give relatively less importance to both access and area; and boating-skiing-swimmers give relatively more importance to area.

Some insight into the outdoor recreationists' desire for access is provided by Exhibit 53, which shows the maximum distance they will travel from the interstate for outdoor recreation. The breakdown of this shows that 8.8% said they would travel a maximum of less than 10 miles; 23.9 percent said their maximum was 11-25 miles; nearly a third or 30.5 percent said 26-50 miles; 16.8% indicated 51-100 miles; and 20 percent said over 100 miles. This does support the conclusion that area is of greatest

EXHIBIT 52

RELATIVE IMPORTANCE OF ACCESS AND AREA IN SITE CHOICE
BY VARIOUS TYPES OF OUTDOOR RECREATIONISTS

Importance Attitude	All Types		Hiking Backpacking		Picnicing Sightseeing		Fishing		Hunting		Camping		Boating Skiing Swimming		Visiting Historic Sites	
	Access %	Area %	Access %	Area %	Access %	Area %	Access %	Area %	Access %	Area %	Access %	Area %	Access %	Area %	Access %	Area %
No Importance	24.7	6.3	26.7	5.8	23.3	5.6	27.3	7.6	30.6	10.4	24.7	6.1	25.1	5.5	21.9	6.1
Little Importance	30.6	7.1	30.6	6.5	28.8	7.1	30.4	5.9	29.0	7.8	30.8	6.7	30.8	6.6	30.6	5.2
Some Importance	35.6	23.1	36.7	18.4	39.1	20.0	31.5	20.0	30.8	22.7	36.3	22.1	35.2	17.9	37.1	22.8
Great Importance	9.3	63.5	6.0	69.2	8.8	67.3	10.8	66.5	9.6	59.1	8.2	65.0	9.0	70.0	10.3	65.8

Source: Survey Conducted by the Authors.

EXHIBIT 53

WILLINGNESS TO TRAVEL VARIOUS MAXIMUM DISTANCES
FROM AN INTERSTATE-FREEWAY TYPE HIGHWAY IN SELECTING
A RECREATIONAL SITE--PERCENT FOR EACH RECREATION TYPE

Maximum Distances	All Types	Hiking Backpacking	Picnicing Sightseeing	Fishing	Hunting	Camping	Boating Skiing Swimming	Visiting Historic Sites
0 - 10 miles	8.8%	7.3%	9.2%	7.9%	6.5%	8.4%	7.3%	9.4%
11 - 25 miles	23.9%	19.8%	22.9%	20.1%	20.9%	22.1%	22.4%	23.2%
25 - 50 miles	30.5%	30.1%	31.3%	30.7%	30.5%	30.2%	29.3%	30.3%
51 - 100 miles	16.8%	16.4%	15.4%	18.2%	18.2%	16.8%	16.5%	15.9%
Over 100 miles	20.0%	26.4%	20.3%	23.1%	22.9%	22.5%	24.5%	21.2%

Source: Estimates by the Authors.

importance since large percentages were willing to drive substantial distances from the interstates.

In Chi square tests of the frequency distribution for each recreation type compared to the frequency distribution of all other recreation types, significant differences at the .05 level of significance were found for hiking-backpacking, fishing, hunting, camping and boating-skiing-swimming. Further evaluation seems to support the following statements of tendency. Although the above listed recreation types showed some tendency to travel further maximum distances, the differences do not seem to be very substantial. In fact, the table tends to support the conclusion that various recreation types are not very different in their view concerning distance they will travel from an interstate to a recreation site. The most significant difference may be the greater willingness of hiker-backpackers to travel longer distances from the interstates. However, the most important conclusion seems to be that those concerned with locating interstates relative to recreation areas can concern themselves primarily with outdoor recreationists as a group and not with the sub-groups of specific recreation types.

The desire for availability of traveler services in recreational areas is shown in Exhibit 54. Traveler services were defined on the questionnaire as restaurants, motels, service stations, and the like. This exhibit indicates that nearly 60 percent feel that no more traveler services are needed while 40 percent feel that more traveler services were desired. Only 11.3 percent expressed a strong desire for more. Thus, the majority of outdoor recreationists are satisfied with the existing services-facilities provided in the area.

However, Chi-square tests indicate that significant differences exist at the .05 level between all recreation types and each of the following

EXHIBIT 54

DESIRE FOR MORE TRAVELER SERVICES IN RECREATION AREA, PERCENT FOR EACH RECREATION TYPE

Attitude	All Types	Hiking Backpacking	Picnicing Sightseeing	Fishing	Hunting	Camping	Boating Skiing Swimming	Visiting Historic Sites
Strongly Disagree	16.9%	17.3%	15.1%	17.9%	18.1%	16.9%	15.0%	14.9%
Disagree	42.9%	45.7%	41.1%	42.5%	39.9%	44.9%	43.0%	43.7%
Agree	28.9%	25.6%	29.6%	26.8%	26.9%	27.3%	28.3%	28.0%
Strongly Agree	11.3%	11.3%	14.2%	12.7%	15.1%	10.9%	13.6%	13.4%

Source: Estimates by the Authors.

specific types: picnicing-sightseeing, hunting, camping, and boating-skiing-swimming. There was some tendency for picnicers-sightseers to express a stronger desire for more traveler services and for campers to express a lesser desire for more traveler services than other types of outdoor recreation.

The most frequently observed trip characteristics by recreation types are shown in Exhibit 55. Such trip characteristics as origin of trip, duration of trip, number of persons on trip, round-trip distance, primary type of lodging, and whether previous visitor are displayed by type of recreation. A comparison of the percentages shown reveals several interesting contrasts between the recreation types. For all types of recreationists, 56.2 percent were from in state and the most significant contrasts were that 57.4 percent of those visiting historic sites were from out of state and 51.5 percent of those camping were from out of state. On the other hand, 74.2 percent of those hunting were from in state.

As for duration of trip, 67.7 percent of all types of outdoor recreationists stayed five days or less. The major differences by specific type were the 79.4 percent of hunters staying five days or less and the 57.7 percent of those visiting historic sites and the 61.6 percent of those camping staying five days or less.

Recognizing that Exhibit 55 speaks for itself, the final point to be emphasized concerns round-trip distance. Among all types of outdoor recreation, 53.6 percent traveled over 200 miles. In contrast, 57.9 percent of the hunters traveled less than 200 miles while 61.8 percent of the campers and 68.3 percent of those visiting historical sites traveled over 200 miles. Exhibit 55 clearly shows there were significant differences as to trip characteristics by recreation type.

EXHIBIT 55

MOST FREQUENTLY OBSERVED TRIP CHARACTERISTICS BY RECREATION TYPE

Type of Recreation	Origin of Trip	Duration of Trip (Days)	Number of Persons on Trip	Round Trip Distance	Primary Type of Lodging	Previous Visitor
Hiking - Backpacking	In-state (52.4%)	5 or less (65.9%)	3 or more (62.2%)	Over 200 miles (58.4%)	Camping (78.6%)	Yes (62.3%)
Picnicing - Sightseeing	In-state (53.8%)	5 or less (66.8%)	3 or more (62.7%)	Over 200 miles (56.8%)	Camping (69.3%)	Yes (60.8%)
Fishing	In-state (58.0%)	5 or less (67.1%)	3 or more (60.7%)	Over 200 miles (50.2%)	Camping (76.8%)	Yes (71.9%)
Hunting	In-state (74.2%)	5 or less (79.4%)	3 or more (54.1%)	Under 200 miles (57.9%)	Camping (79.2%)	Yes (74.4%)
Camping	Out-state (51.5%)	5 or less (61.6%)	3 or more (58.4%)	Over 200 miles (61.8%)	Camping (85.7%)	Yes (62.0%)
Boating-Skiing-Swimming	In-state (54.5%)	5 or less (63.6%)	3 or more (68.2%)	Over 200 miles (56.7%)	Camping (75.0%)	Yes (65.4%)
Visiting Historic Sites	Out-state (57.4%)	5 or less (57.7%)	3 or more (60.4%)	Over 200 miles (68.3%)	Camping (82.2%)	Yes (56.3%)
All Types	In-state (56.2%)	5 or less (67.7%)	3 or more (58.2%)	Over 200 miles (53.6%)	Camping (72.2%)	Yes (65.8%)

Source: Estimates by the Authors.

Exhibit 56 displays the most frequently observed demographic characteristics by recreation type. This exhibit is structured much like the previous exhibit and the percentages reflect the contrasts between the recreation types. For all recreation types 60.4 percent were over 35 years of age while 71.0 percent of the campers, only 52.0 percent of the hikers-backpackers and only 52.3 percent of the boaters-skiiers-swimmers were over 35 years old.

With regard to the sex of the recreationists, 74.5 percent of all types were male with the greatest difference by type being the 82.2 percent of hunters which were male. As for race, virtually all outdoor recreationists of all types were white. Blacks and other non-whites are not a significant portion of those participating in outdoor recreation at sites in Arkansas.

The most frequently observed level of education was the 55.3 percent of all recreationists being high school graduates or less. The major contrasting sub-types were hiking-backpacking and those visiting historical sites with 56.3 percent and 52.3 percent, respectively, having educations above high school. With regard to occupation, the most frequently observed was professional, technical, or managerial for each and every recreation type.

The final demographic characteristic analyzed was income with 51.6 percent of all recreation types being above $15,000 family income. In fact, the majority of each recreation type was above this income level. Outdoor recreation seems to be an activity predominantly attractive to higher income people. In fact, only 23.4 percent had family incomes lower than $10,000. Comparisons among recreation types indicate that the types having higher percentages in the above-$15,000 income category were: boaters-skiiers-swimmers; hunters; and hikers-backpackers.

EXHIBIT 56

MOST FREQUENTLY OBSERVED DEMOGRAPHIC CHARACTERISTICS BY RECREATION TYPE

Type of Recreation	Age	Sex	Race	Education	Occupation	Income
Hiking-Backpacking	Over 35 (52.0%)	Male (71.3%)	White (99.1%)	Above H.S. (56.3%)	Prof-Tec (41.8%)	Over $15,000 (55.9%)
Picnicing-Sightseeing	Over 35 (55.6%)	Male (70.8%)	White (98.6%)	H.S. or less (51.2%)	Prof-Tec (38.4%)	Over $15,000 (51.8%)
Fishing	Over 35 (59.8%)	Male (77.4%)	White (98.7%)	H.S. or less (54.9%)	Prof-Tec (34.7%)	Over $15,000 (55.3%)
Hunting	Over 35 (56.2%)	Male (82.2%)	White (99.5%)	H.S. or less (58.0%)	Prof-Tec (29.7%)	Over $15,000 (55.9%)
Camping	Over 35 (71.0%)	Male (75.8%)	White (99.2%)	H.S. or less (54.1%)	Prof-Tec (35.1%)	Over $15,000 (53.4%)
Boating-Skiing-Swimming	Over 35 (52.3%)	Male (71.9%)	White (98.8%)	H.S. or less (52.8%)	Prof-Tec (37.9%)	Over $15,000 (56.9%)
Visiting Historic Sites	Over 35 (62.6%)	Male (73.3%)	White (99.2%)	Above H.S. (52.3%)	Prof-Tec (39.9%)	Over $15,000 (54.1%)
All Types	Over 35 (60.4%)	Male (74.5%)	White (98.5%)	H.S. or less (55.3%)	Prof-Tec (33.3%)	Over $15,000 (51.6%)

Source: Estimates by the Authors.

A brief summary of the major findings of this evaluation of recreation types is in order. It was found that all recreation types placed significantly greater importance upon the area itself than upon access in site choice. Future analysis of recreationists' preferences concerning this may not need to be divided into various types but can concentrate more on outdoor recreation as a whole. All groups seemed willing to travel substantial distances from the interstates to find a good site. A majority indicated they felt no more traveler services were needed. There were significant differences between the recreation types as to trip characteristics and demographic characteristics. Perhaps most interesting of the trip characteristic differences were those of hunters, who seemed more different from the average than other types. As for the demographic characteristics, perhaps most interesting were the large percentages in each recreation type of higher income people, the relatively high frequency of professional, technical, or managerial occupation group, the very low percent of non-whites, and the significantly higher percentage of campers being older than was found for other recreation groups.

4.6 Comparison of Attitudes and Characteristics of Visitors to Different Types of Outdoor Recreation Areas

A comparison of the visitors' attitudes and characteristics by different type of outdoor recreation area is made in this section. Also evaluated is the relative importance of access and area to the visitors of each type of outdoor recreation area. The types of areas compared are as follows: state parks, national parks, national forests, Corps of Engineers areas, national wildlife refuges, and primitive camps. As explained in Chapter III where the survey techniques were outlined, areas readily accessible by interstate were paired with areas with comparable facilities remote

to such highways. The purpose of this was to provide a balanced view for each type of recreation area. A later section will compare those areas near to those far from interstate-freeway type highways. The objective in this section is to compare the different type areas.

Exhibit 57 displays the relative importance of access and area in site choice by type of outdoor recreation area. For all types, 55.3 percent say access is of little or no importance while 44.9 percent say it is important in their choice of a site. It is particularly significant to compare this with the 86.6 percent who said area was important in their decision. In fact 63.5 percent said area was very important while only 6.3 percent said area was not important. Although a sizeable minority attributed importance to access in site choice, it is the area itself that is more important.

This brief review for all outdoor recreations provides the perspective for evaluating the visitors to each type of outdoor recreation area. A pattern essentially like that for all recreationists was found for each area type. The area that seemed to be less important to visitors was the national wildlife refuges. Interestingly, access to interstates was reported as being of little or no importance to a significantly greater degree by visitors to national wildlife refuges than was found for the other type areas. In fact, 47.1 percent said access was simply of no importance to them. Apparently, the visitors to national wildlife refuges do not really care for much alteration in the natural environment as compared to visitors to other areas.

Since visitors to national wildlife refuges had such a significant difference from the visitors to other type areas, it might be interesting to evaluate the maximum distance they will travel from the interstate for outdoor recreation. Appendix Table A-53 shows that 39.0 percent would

EXHIBIT 57

THE RELATIVE IMPORTANCE OF ACCESS AND AREA IN SITE CHOICE
BY TYPE OF OUTDOOR RECREATION AREA

Importance Attitude	All Types		State Park		National Park		National Forest		Corps of Engineers		National Wildlife Refuge		Primitive Camp	
	Access	Area	Access	Area	Access	Area	Access	Area	Access	Area	Access	Area	Access	Area
No Importance	24.7%	6.3%	19.5%	4.2%	17.9%	4.9%	30.4%	4.5%	25.6%	5.9%	47.1%	22.9%	27.1%	9.3%
Little Importance	30.6%	7.1%	31.0%	6.7%	31.3%	7.5%	29.2%	6.0%	33.1%	7.2%	28.1%	7.6%	26.4%	9.3%
Some Importance	35.6%	23.1%	39.2%	24.9%	39.3%	25.7%	33.5%	21.3%	33.1%	20.2%	21.5%	17.8%	32.9%	25.6%
Great Importance	9.3%	63.5%	10.2%	64.2%	11.6%	61.9%	6.9%	68.3%	8.1%	66.8%	3.3%	51.7%	13.6%	55.8%

Source: Survey conducted by the Authors.

travel over 100 miles, which is about twice the proportion for all recreationists surveyed. Only 4.1 percent said their maximum travel was less than 25 miles, while in contrast 32.7 percent of all outdoor recreationists surveyed said this. In conclusion, visitors to national wildlife refuges are individualistic in that they are quite significantly different from other recreationists in their lack of desire for interstate-freeway type highways to be located near their outdoor recreation areas.

Exhibit 58 shows the most frequently observed trip characteristics by visitors to recreation areas. The trip characteristics evaluated were: origin of trip, duration of trip, number of persons on trip, round-trip distance, primary type of lodging, whether previous visitor, and time of visit. As can be observed in this exhibit, 56.2 percent of all visitors to recreation areas were from in state, and the most significant contrasts were the 98.4 percent and 90.6 percent, respectively, that were in-state visitors in primitive camps and national wildlife refuges. On the other hand 58.5 percent of the visitors to national parks and 56.2 percent of the visitors to Corps of Engineers areas were from out of state.

With regard to duration of trip, 67.7 percent of all visitors to all type areas stayed five days or less. The most significant differences were the 54.9 percent of visitors to national parks who stayed 6 or more days, and the 97.4 percent and 82.8 percent, respectively, that stayed 5 or less days at national wildlife refuges and primitive camps.

It is recognized that Exhibit 58 clearly demonstrates for itself the major contrasts between visitors to different type areas. It is certainly noteworthy that visitors to national wildlife refuges, primitive camps, and national parks tend to vary most from the averages for all type areas. Visitors to national wildlife refuges and primitive camps tend to vary in

EXHIBIT 58

MOST FREQUENTLY OBSERVED TRIP CHARACTERISTICS
BY TYPE OF RECREATION AREA

Type of Recreation Area	Origin of Trip	Duration of Trip	Number of Persons on Trip	Round Trip Distance	Primary Type of Lodging	Previous Visitor	Time of Visit
State Park	In-State (50.2%)	5 or less (68.6%)	3 or more (56.9%)	Over 200 miles (51.4%)	Camping (71.5%)	Yes (60.3%)	Weekend (55.6%)
National Park	Out-State (58.5%)	6 or more (54.9%)	2 or less (54.9%)	Over 200 miles (75.8%)	Camping (80.4%)	Yes (54.3%)	Weekday (84.7%)
National Forest	In-State (61.6%)	5 or less (83.7%)	3 or more (70.5%)	Over 200 miles (52.9%)	Camping (66.9%)	Yes (70.3%)	Weekend (68.9%)
Corps of Engineers	Out-State (56.2%)	5 or less (50.3%)	3 or more (65.9%)	Over 200 miles (58.5%)	Camping (74.3%)	Yes (72.3%)	Weekend (54.0%)
National Wildlife Refuge	In-State (90.6%)	5 or less (97.4%)	2 or less (60.9%)	Over 200 miles (60.0%)	Camping (80.0%)	Yes (80.9%)	Weekday (67.7%)
Primitive Camp	In-State (98.4%)	5 or less (82.8%)	3 or more (57.2%)	Under 200 miles (87.6%)	Camping (60.6%)	Yes (76.6%)	Weekday (52.1%)
All Areas	In-State (56.2%)	5 or less (67.7%)	3 or more (58.2%)	Over 200 miles (53.6%)	Camping (72.2%)	Yes (65.8%)	Weekday (50.2%)

Source: Survey conducted by the Authors.

one direction from the average while visitors to national parks vary the other direction. In view of the earlier reported views of visitors to national wildlife refuges concerning their relative lack of desire for access to interstates, it is particularly worth noting that they also tend to a greater degree than others to originate in state, stay shorter time, have shorter round-trip distances, have been a previous visitor, and be a weekday visitor. These tendencies perhaps account for their relative lack of interest in having access to interstate-freeway type highways.

Exhibit 59 provides insight into the most frequently observed demographic characteristics by type of recreation area. The structure of this exhibit is essentially the same as the previous exhibit with the percentages reflecting the contrasts between the visitors to different types of recreation areas. It is shown that for all visitors, 60.4 percent were over 35 years of age with rather significant differences among the different type areas. Visitors to national parks and Corps of Engineers areas tended to be over 35 years of age, with 71.6 percent and 67.9 percent, respectively. On the other hand, 50.7 percent of the visitors to national forests were under 35 years of age. Also, visitors to national wildlife refuges and primitive camps tended to be younger with only 53.0 percent and 53.2 percent, respectively, being over 35 years of age.

The most significant difference in the proportion of male participants was the 99.1 percent of visitors to national wildlife refuges. This is in contrast to the 74.5 percent of all visitors to all areas who were males. Consistent with the earlier overview of survey, practically all visitors to each of the type areas were white. Although the percent is insignificant statistically, the raw data indicates a slightly larger percentage of non-white visitors to national parks than to other type areas.

EXHIBIT 59

MOST FREQUENTLY OBSERVED DEMOGRAPHIC CHARACTERISTICS
BY TYPE OF RECREATION AREA

Type of Recreation Area	Age	Sex	Race	Education	Occupation	Income
State Park	Over 35 (61.8%)	Male (70.4%)	White (98.5%)	High School or less (52.8%)	Prof-Tec (35.1%)	Under $15,000 (50.3%)
National Park	Over 35 (71.6%)	Male (74.0%)	White (97.8%)	High School or less (52.0%)	Prof-Tec (35.2%)	Under $15,000 (51.6%)
National Forest	Under 35 (50.7%)	Male (67.5%)	White (100.0%)	High School or less (51.9%)	Prof-Tec (39.7%)	Under $15,000 (51.2%)
Corps of Engineers	Over 35 (67.9%)	Male (76.9%)	White (98.4%)	High School or less (59.9%)	Prof-Tec (31.7%)	Over $15,000 (55.4%)
National Wildlife Refuges	Over 35 (53.0%)	Male (99.1%)	White (99.1%)	High School or less (61.2%)	Prof-Tec (22.2%)	Over $15,000 (62.4%)
Primitive Camp	Over 35 (53.2%)	Male (82.5%)	White (97.0%)	High School or less (64.1%)	Prof-Tec (21.8%)	Over $15,000 (53.4%)
All Areas	Over 35 (60.4%)	Male (74.5%)	White (98.5%)	High School or less (55.3%)	Prof-Tec (33.3%)	Over $15,000 (51.6%)

Source: Survey conducted by the Authors.

The major differences in educational level were the 61.2 percent and 64.1 percent, respectively, of visitors to national wildlife refuges and primitive camps who were high school or lower in educational attainment. This can be compared to the 55.3 percent of all visitors who had attained high school or less. Although 33.3 percent of all visitors to all type areas were professional technical in occupation type, only 22.3 percent and 21.8 percent, respectively, of visitors to national wildlife refuges and primitive camps were in this occupation group. Finally, visitors to national wildlife refuges tended to be higher income people than visitors to other areas in that 62.4 percent had incomes over $15,000. In contrast, only 51.6 percent of all visitors had family incomes exceeding $15,000.

The exhibit comparing demographic characteristics continues the pattern of differences which has been noted throughout this section for the visitors to national wildlife refuges. In relative comparison to the visitors to other areas, they tend to be younger, males, white, less formally educated, and higher income.

The major findings of this evaluation of visitors to different type areas is summarized below. Visitors to all type areas placed significantly greater importance upon the area itself than upon access in site choice. It may be advisable to divide the visitors into those visiting different type sites in evaluating attitudes and preferences. Of particular significance were the differences in the characteristics of visitors to national wildlife refuges. These particular visitors placed even less importance upon access by interstates than did other type area visitors. Apparently they wanted their outdoor recreation areas left pretty much the way nature provided.

4.7 Comparison of Attitudes and Characteristics of Persons Interviewed Near and Far from Existing Interstates

This section provides a comparison of attitudes and characteristics of visitors to outdoor recreation areas near interstates and those visiting areas remote or far from interstates in the State of Arkansas. The attempt here is to provide additional insight into differences of attitudes and characteristics to that provided in earlier sections. A comparison has already been made between different recreation types, different recreation areas, and different attitudes concerning route and site. Within each of these are those visiting sites near and those visiting sites far from interstate-freeway type highways. The evaluation now turns toward this matter.

Exhibit 60 compares the different degrees of agreement concerning certain attitudes. A slightly larger percentage of those engaged in outdoor recreation activities in areas far from interstates tended to agree that Arkansas needs more interstate-freeway type highways serving recreation areas than those near to interstates. Since they expressed this view, those in areas far from interstates apparently were not necessarily trying to get away from interstates. On the contrary, one would have anticipated an even larger plurality of agreement among those far from interstates that more interstates were needed. Apparently this lack of a large plurality in itself indicates a lack of desire for interstates by outdoor recreationists.

A contrast of those interviewed near and far from interstates displayed no really major differences in view as to the need for better connecting roads from interstates to recreation areas. The most dramatic contrast was that 8.0 percent of those far and only 3.9 percent of those near strongly disagreed as to this need. Of course, a substantial majority of both those far and near indicated agreement as to this need.

EXHIBIT 60

ATTITUDE COMPARISONS BETWEEN VISITORS TO RECREATION AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Attitudes	Strongly Disagree		Disagree		Agree		Strongly Agree	
	Near	Far	Near	Far	Near	Far	Near	Far
Arkansas needs more interstate-freeway type highways serving its outdoor recreational areas.	12.2%	16.5%	44.4%	37.8%	35.5%	36.0%	7.9%	9.7%
Arkansas needs better connecting roads from interstate-freeway type highways to recreational areas.	3.9%	8.0%	31.0%	26.8%	50.4%	47.8%	14.6%	17.3%
This area needs more traveler services, such as restaurants, motels, service stations, and the like.	16.7%	17.1%	47.8%	40.0%	27.9%	29.5%	7.6%	13.4%

Source: Survey conducted by the Authors.

Those far from and near to interstates tended to generally disagree that the area needs more traveler services. The greatest degree of disagreement was by those near to interstates. Apparently, no change in the amount of services available is desired by outdoor recreationists.

Exhibit 61 provides insight into the relative importance of access and the area itself by those in areas near and those in areas far from interstates. It is no great surprise to find that access to interstates tends to be of greater relative importance to those engaged in outdoor recreation in areas near interstates. On the other hand, the area itself is of considerably greater importance to all and especially to those far from the interstate. A more complete analysis of the relative importance of access and area in site choice is provided in an earlier section.

The subject of attitude differentials relative to route choice is likewise treated earlier. However, Exhibit 62 provides some additional insight to that provided earlier with regard to those visiting areas near to or far from interstates. In the selection of a route, the availability of interstate-freeway type highways is rated as of little or no importance by 60.9 percent of those in areas far from interstates, but by only 49.6 percent of those in areas near interstates. Consequently, greater relative importance is given to interstates by those in areas near interstates. An all-weather (secondary) road leading to area is rated as very important by all, and by a considerably greater percentage than was found for interstates. The availability of scenic highways is rated as important by those near or far, and especially by those in areas far from the interstates. This is apparently one of their motives for visiting far-from interstate areas. There were no significant differences found concerning the importance of directness nor for the importance of services in route choice.

EXHIBIT 61

THE RELATIVE IMPORTANCE OF ACCESS AND AREA IN SITE CHOICE BY VISITORS TO RECREATION AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Attitude	No Importance		Little Importance		Some Importance		Great Importance	
	Near	Far	Near	Far	Near	Far	Near	Far
Access to interstate-freeway type highways	17.9%	28.8%	30.3%	30.8%	40.6%	32.4%	11.3%	8.1%
The area itself	5.2%	7.0%	7.2%	6.9%	25.5%	21.7%	62.1%	64.3%

Source: Survey conducted by the Authors.

EXHIBIT 62

ATTITUDE COMPARISONS REGARDING ROUTE SELECTION BETWEEN VISITORS TO RECREATION AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Attitudes	No Importance		Little Importance		Some Importance		Great Importance	
	Near	Far	Near	Far	Near	Far	Near	Far
Interstate-freeway type highways leading to area	17.4%	30.2%	32.2%	30.7%	36.8%	29.9%	13.6%	9.2%
All-weather (secondary) roads leading to area	4.1%	3.4%	6.6%	6.3%	33.3%	35.7%	56.0%	54.6%
Scenic nature of highway	5.9%	5.6%	14.7%	11.6%	39.9%	37.7%	39.6%	45.0%
Directness to destination	5.7%	8.5%	20.7%	21.2%	41.5%	41.0%	32.1%	29.3%
Availability of traveler services	11.1%	12.1%	19.2%	20.4%	38.8%	40.5%	30.9%	26.9%

Source: Survey conducted by the Authors.

Exhibit 63 provides a comparison of the relative importance of access to an interstate in the selection of a site for various types of outdoor recreation. The focal point of the comparison is whether they were near to or far from an interstate. For the recreation types interviewed in areas far from interstates, access was of greater relative importance to those engaged in camping, visiting historical sites, boating, skiing and swimming, and fishing. Access was of greater relative importance for those interviewed in areas near interstates by the same four types as above plus those engaged in picnicing-sightseeing. The recreation type giving greatest relative importance to access was those camping. Apparently the bulkiness of camping equipment made access more important.

Exhibit 64 provides a profile of the trip characteristics of those visiting sites near to and far from interstates. Approximately 38 percent of those surveyed were visitors in areas near interstates while 62 percent visited areas far from interstates. These percentages may be used as benchmarks in the evaluation of the percentages in each observation of a trip characteristic. The most significant departures from the benchmark proportions are listed below.

A greater relative proportion of the visitors with the following trip characteristics chose areas near interstates: where origin of trip was other-state; where destination was either border-state or other-state; where duration of trip was either no nights or 16 or more nights; where mode of transportation was auto-no equipment; where number of persons on trip was one; where round-trip distance was 2,000 or over miles; where there was no lodging; and where time of visit was weekend.

In contrast, a greater relative proportion of the visitors with the following trip characteristics chose areas far from interstates: where

EXHIBIT 63

ATTITUDES COMPARISON REGARDING ACTIVITIES SELECTION BETWEEN VISITORS TO AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Attitudes	No Importance		Little Importance		Some Importance		Great Importance	
	Near	Far	Near	Far	Near	Far	Near	Far
Hiking/Backpacking	30.5%	40.5%	23.2%	22.3%	32.5%	24.7%	13.9%	12.4%
Picnicing/Sightseeing	12.2%	22.6%	14.2%	18.2%	39.2%	32.0%	34.4%	27.2%
Fishing	18.1%	26.5%	18.4%	17.9%	30.4%	25.6%	33.1%	29.9%
Hunting	35.5%	43.9%	14.2%	16.4%	19.9%	18.6%	30.5%	21.2%
Camping	13.7%	20.5%	11.5%	15.9%	31.3%	30.2%	43.5%	33.5%
Boating/Skiing/Swimming	15.8%	21.2%	13.6%	18.3%	34.1%	30.4%	36.6%	30.1%
Visiting historical sites or hobby and cultural centers	9.4%	19.1%	12.8%	18.1%	36.6%	31.7%	41.3%	31.0%

Source: Survey conducted by the Authors.

EXHIBIT 64

COMPARISON OF TRIP CHARACTERISTICS BETWEEN VISITORS TO AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Trip Characteristics	Predominant Observations		Proportion Indicating Near (%)	Proportion Indicating Far (%)
Origin of Trip	In-state	(55.9%)*	41.0	59.0
	Border-state	(26.8%)	24.8	75.2
	Other-state	(17.3%)	46.7	53.3
Destination of Trip	In-state	(91.0%)	35.2	64.8
	Border-state	(4.1%)	54.1	45.9
	Other-state	(5.0%)	66.7	33.3
Purpose of Trip	Outdoor Rec.	(74.5%)	35.7	64.3
Duration of Trip	No Nights	(17.5%)	51.2	48.8
	1-2 Nights	(23.8%)	31.3	68.7
	3-5 Nights	(26.0%)	32.7	67.3
	6-15 Nights	(24.8%)	35.5	64.5
	16-more Nights	(7.9%)	52.6	47.4
Mode of Transportation	Auto-No Equip.	(25.2%)	45.3	54.7
	Auto-Equip.	(62.6%)	34.2	65.8
	Motor Home	(8.7%)	40.5	59.5
Number of Persons on Trip	1	(4.6%)	55.1	44.9
	2	(36.8%)	39.1	60.9
	3-5	(49.6%)	36.3	63.7
	6-more	(9.0%)	32.5	67.5
Round Trip Distance	Up to 200 miles	(45.9%)	45.5	54.5
	200-399 Miles	(14.9%)	21.3	78.7
	400-599 Miles	(10.3%)	25.0	75.0
	600-799 Miles	(5.1%)	29.9	70.1
	800-999 Miles	(5.0%)	34.9	65.1
	1,000-1,999 Miles	(10.9%)	27.7	72.3
	2,000-over	(7.9%)	59.4	40.6
Primary Type of Lodging	None	(18.6%)	44.1	55.9
	Camping	(72.1%)	35.5	64.5
Previous Visitor	Yes	(66.1%)	35.2	64.8
	No	(33.9%)	42.9	57.1
Time of Visit	Weekend	(49.8%)	21.7	78.3
	Weekday	(50.2%)	53.4	46.6

*Percent of all surveyed having this specific trip characteristic observation.
Source: Survey conducted by the Authors.

origin of trip was border-state; where round-trip distance traveled was over 200 but under 2,000 miles; and where time of visit was weekend. The least likely to be visiting areas far from interstates were those whose destination was other states, while the least likely to visit areas near interstates tended to be those traveling 200-399 miles and where time of visit was weekend.

Exhibit 65 provides a look at the comparative demographic characteristics of those near and far from interstates. The same benchmarks can be used for evaluation as were used for analyzing trip characteristics. A greater relative proportion of the visitors with the following demographic characteristics chose areas near interstates: where age was 45-54; where visitor was female; and where occupation was self-employed. On the other hand, a greater relative proportion of the visitors with the following demographic characteristics chose areas far from interstates: where age was under 18 or 55-64; where visitor was male; where occupation was farming; and where income was under $5,000.

In conclusion, a comparison of those visiting areas near and far from interstates does not change materially the conclusions reached earlier in this study. Only a slightly greater desire for interstates was found among those in areas far from interstates. It was also found that, as one would expect, those in areas near interstates tended to prefer access to a greater degree than others. The area itself was found to be of greater importance to those in areas far from interstates.

EXHIBIT 65

COMPARISON OF DEMOGRAPHIC CHARACTERISTICS BETWEEN VISITORS TO AREAS NEAR AND FAR FROM EXISTING INTERSTATES

Trip Characteristics	Predominant Observations		Proportion Indicating Near (%)	Proportion Indicating Far (%)
Household Head	Yes	(78.4%)*	37.3	62.7
	No	(21.6%)	39.4	60.6
Age	Under 18	(3.4%)	31.7	68.3
	18-24	(10.8%)	35.9	64.1
	25-34	(25.8%)	36.8	63.2
	35-44	(24.2%)	38.8	61.2
	45-54	(17.2%)	43.3	56.7
	55-64	(10.9%)	31.6	68.4
	65 and over	(7.7%)	39.9	60.1
Sex	Male	(74.4%)	36.5	63.5
	Female	(25.6%)	42.3	57.7
Race	White	(98.5%)	37.1	62.9
Education	Grade School	(4.6%)	37.0	63.0
	High School	(49.9%)	36.3	63.7
	Post HS-College	(45.4%)	39.7	60.3
Occupation	Prof-Tec	(33.8%)	38.2	61.8
	Farm	(9.4%)	30.9	69.1
	Craft	(18.5%)	39.4	60.6
	Self-Emp.	(10.2%)	42.9	57.1
	Retired	(13.5%)	38.0	62.0
Income	Under $5,000	(3.9%)	34.4	65.6
	$5,000-$7,499	(6.8%)	38.7	61.3
	$7,500-$9,999	(12.5%)	37.8	62.2
	$10,000-$14,999	(25.2%)	38.7	61.3
	$15,000-$19,999	(23.0%)	37.3	62.7
	$20,000-$29,999	(19.0%)	40.0	60.0
	$30,000-over	(9.6%)	39.6	60.4

*Percent of all surveyed having this specific trip characteristic observation.

Source: Survey conducted by the Authors.

4.8 Evaluation of Outdoor Recreation Respondents' Attitudes toward Economic Development in Recreation Areas

Economic development in an outdoor recreational area is usually in the form of restaurants, motels, service stations, and the like. Other types of business unrelated to outdoor recreation might also develop, but these would not necessarily be in direct response to the visits by outdoor recreationists. The purpose of this section is to evaluate the type of economic development which would tend to occur in direct response to outdoor recreation. The questionnaire specifically asked respondents to indicate their agreement or disagreement concerning whether the area needed more traveler services. The discussion below is an evaluation of the response to this question.

Exhibit 66 provides a comparison of those agreeing and those disagreeing with need for more economic development in the area by those giving importance to access to interstates and by those giving importance to the area itself in site selection. Both those agreeing and those disagreeing to more traveler services gave importance to the area itself by a large majority. In contrast, 59.0 percent of those agreeing to more traveler services gave importance to access to interstates, while only 34.2 percent of those disagreeing gave importance to access. In conclusion, those placing importance upon access to interstates tend also to agree as to the need for more economic development in the area.

Exhibit 67 supports the conclusion reached above. This exhibit shows by the importance given to various highway characteristics in route choice the degree of agreement as to the need for economic development in the area. The highway characteristics evaluated were: interstate-freeway type highways leading to area, all-weather (secondary) roads leading to area, scenic nature of highway, directness to destination, and availability of traveler

EXHIBIT 66

A COMPARISON OF THE DEGREE OF IMPORTANCE GIVEN TO ACCESS AND TO THE AREA ITSELF IN SITE SELECTION BY THOSE AGREEING AND THOSE DISAGREEING CONCERNING NEED FOR MORE TRAVELER SERVICES

Important in Site Selection	Disagree				Agree			
	Not Important	Little Importance	Important	Great Importance	Not Important	Little Importance	Important	Great Importance
Access to interstate-freeway type highways	33.0%	32.7%	29.2%	5.0%	12.7%	28.2%	44.2%	14.8%
The area itself	8.4%	7.4%	19.8%	64.4%	3.4%	6.9%	28.5%	61.3%

Source: Survey conducted by the Authors.

EXHIBIT 67

A COMPARISON OF THE DEGREE OF IMPORTANCE GIVEN TO SELECTED HIGHWAY CHARACTERISTICS IN ROUTE SELECTION BETWEEN THOSE AGREEING AND THOSE DISAGREEING CONCERNING NEED FOR MORE TRAVELER SERVICES

Highway Characteristics	Disagree		Agree	
	Not Important	Important	Not Important	Important
Interstate-freeway type highways leading to area	66.5%	33.5%	42.7%	57.3%
All-weather (secondary) roads leading to area	12.0%	88.0%	7.3%	92.7%
Scenic nature of highway	18.7%	81.3%	18.1%	81.9%
Directness to destination	33.5%	66.5%	21.4%	78.6%
Availability of traveler services	42.4%	57.6%	15.6%	84.4%

Source: Survey conducted by the Authors.

services. In all cases greater importance was indicated by those agreeing as to the need for more economic development than was indicated by those disagreeing as to this need.

Exhibit 68 provides a comparison by recreation types of their agreement or disagreement with the need for economic development in the area and the degree of importance they give to access to an interstate-freeway type highway. In general, greater importance is given by all recreation types by those agreeing than by those disagreeing. Significantly greater importance is given by those agreeing where the type of recreation was camping, boating, skiing and swimming, and visiting historical sites.

Looking at the data in the entire survey, Exhibit 12 in Section 4.1 showed that 59.8 percent of those surveyed disagreed as to the need for more traveler services while 40.2 percent agreed. A comparison of the outdoor-recreation types indicates that those disagreeing to the greatest degree were those hiking/backpacking (63.0 percent) and those camping (61.8 percent). On the other hand, those disagreeing the least were those engaged in picnicing/sightseeing (56.2 percent). A comparison of these percentages does not indicate a substantial degree of variation among the recreation types as to the agreement concerning need for economic development in recreation areas. The overall comparison essentially tells the story since there were really no substantial differences among the recreation types. This is essentially the same conclusion reported in the section specifically analyzing recreation types.

Several interesting contrasts were found among the trip and demographic characteristics of those agreeing and those disagreeing as to the need for economic development in recreation areas. Exhibit 69, showing the trip characteristics, lists the following trip observations as tending to disagree

EXHIBIT 68

A COMPARISON OF THE DEGREE OF IMPORTANCE GIVEN TO ACCESS BY VARIOUS RECREATION TYPES BY THOSE AGREEING AND THOSE DISAGREEING CONCERNING NEED FOR MORE TRAVELER SERVICES

	Disagree				Agree			
Recreation Types	Not Important	Little Importance	Important	Great Importance	Not Important	Little Importance	Important	Great Importance
Hiking/Backpacking	41.4%	25.6%	23.8%	9.2%	30.6%	18.8%	32.5%	18.1%
Picnicing/Sightseeing	23.7%	19.3%	32.0%	25.0%	13.2%	14.3%	37.2%	35.4%
Fishing	29.5%	20.2%	25.6%	24.7%	15.3%	15.6%	29.2%	39.8%
Hunting	49.8%	15.2%	16.5%	18.6%	28.7%	16.2%	21.6%	33.5%
Camping	23.6%	17.6%	27.4%	31.4%	9.8%	9.6%	35.4%	45.3%
Boating/Skiing/Swimming	24.9%	19.8%	30.4%	24.9%	12.4%	12.7%	33.3%	41.5%
Visiting historical sites or hobby and cultural centers	19.6%	19.8%	32.2%	28.4%	10.3%	11.8%	24.6%	43.3%

Source: Survey conducted by the Authors.

EXHIBIT 69

THE EXTENT OF AGREEMENT THAT AREA NEEDS MORE TRAVELER SERVICES BY SELECTED TRIP CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Origin of Trip	In-state	(55.9%)*	57.0	43.0
	Border-state	(26.8%)	63.2	36.8
	Other-state	(17.3%)	65.8	34.2
Destination of Trip	In-state	(91.0%)	59.7	40.3
	Border-state	(4.1%)	73.3	26.7
	Other-state	(5.0%)	65.2	34.8
Purpose of Trip	Outdoor Rec.	(74.5%)	60.4	39.6
Duration of Trip	No Nights	(17.5%)	53.9	46.1
	1-2 Nights	(23.8%)	54.6	45.4
	3-5 Nights	(26.0%)	62.3	37.7
	6-15 Nights	(24.8%)	62.2	37.8
	16-More Nights	(7.9%)	71.9	21.1
Mode of Transportation	Auto-No Equip.	(25.2%)	51.2	48.8
	Auto-Equip.	(62.6%)	64.1	35.9
	Motor Home	(8.7%)	58.2	41.8
Number of Persons on Trip	1	(4.6%)	67.9	32.1
	2	(36.8%)	63.0	37.0
	3-5	(49.6%)	59.1	40.9
	6-more	(9.0%)	47.7	52.3
Round Trip Distance	Up to 200 Miles	(45.9%)	56.0	44.0
	200-399 Miles	(14.9%)	60.9	39.1
	400-599 Miles	(10.3%)	58.1	41.9
	600-799 Miles	(5.1%)	55.4	44.6
	800-999 Miles	(5.0%)	64.6	35.4
	1,000-1,999 Miles	(10.9%)	68.5	31.5
	2,000-over	(7.9%)	73.0	27.0
Primary Type of Lodging	None	(18.6%)	56.1	43.9
	Camping	(72.1%)	62.2	37.8
Previous Visitor	Yes	(66.1%)	59.0	41.0
	No	(33.9%)	62.0	38.0
Time of Visit	Weekend	(49.6%)	56.4	43.6
	Weekday	(50.4%)	63.1	36.9

*Percent of all surveyed having this specific trip characteristic observation.
Source: Survey conducted by the Authors.

more: those whose origin is from other states; those whose destination is in border states; those having longer duration of trip; those having fewer persons on trip; those having longer round-trip distances; and those visiting on weekdays.

In contrast, the trip characteristic observations tending to agree to a greater extent concerning a need for economic development in the area were: those whose origin was in-state; those with shorter duration of trip; those whose mode of transportation was auto with no equipment; those with a greater number of persons on trip; those with shorter round-trip distances; and those on weekend visits.

Exhibit 70 provides a similar comparison as to demographic characteristics. Those tending to disagree more were: those over 65 years of age; those with higher levels of formal education; those whose occupation was professional-technical; and those with the highest family income. On the other hand, those agreeing to a greater extent tended to be as follows: those under 24 years of age; those who were females; those with less formal education; those whose occupation category was craftsman; and those with the lowest family income.

In conclusion, except for the differences in trip and demographic characteristics listed above, there is not a great deal of further insight provided in this section that has not been developed previously. Those who place importance upon access tend also to place importance upon economic development in the area. This is certainly a consistent attitude, but the fact remains that the factor of greatest importance to the outdoor recreationist is the area itself. It was demonstrated in this section that both those agreeing and those disagreeing on the matter of economic development

EXHIBIT 70

THE EXTENT OF AGREEMENT THAT AREA NEEDS MORE TRAVELER SERVICES
BY SELECTED DEMOGRAPHIC CHARACTERISTICS

Trip Characteristics	Predominant Observations		Proportion Indicating Disagree (%)	Agree (%)
Household Head	Yes	(78.4%)*	60.0	40.0
	No	(21.6%)	58.0	42.0
Age	Under 18	(3.4%)	55.2	44.8
	18-24	(10.8%)	50.0	50.0
	25-34	(25.8%)	62.3	37.7
	35-44	(24.2%)	61.4	38.6
	45-54	(17.2%)	58.8	41.2
	55-64	(10.9%)	61.8	38.2
	65 and over	(7.7%)	63.6	36.4
Sex	Male	(74.4%)	61.7	38.3
	Female	(25.6%)	54.6	45.4
Race	White	(98.5%)	60.0	40.0
Education	Grade School	(4.6%)	48.1	51.9
	High School	(49.9%)	55.9	44.1
	Post HS-College	(45.4%)	65.7	34.3
Occupation	Prof-Tec	(33.8%)	66.7	33.3
	Farm	(9.4%)	56.3	43.7
	Craft	(18.5%)	54.2	45.8
	Self-Emp.	(10.2%)	58.7	41.3
	Retired	(13.5%)	62.2	37.8
Income	Under $5,000	(3.9%)	47.6	52.4
	$5,000-$7,499	(6.8%)	58.0	42.0
	$7,500-$9,999	(12.5%)	52.9	47.1
	$10,000-$14,999	(25.2%)	60.3	39.7
	$15,000-$19,999	(23.0%)	57.1	42.9
	$20,000-$29,999	(19.0%)	71.1	28.9
	$30,000-over	(9.6%)	62.3	37.7

*Percent of all surveyed having this specific demographic characteristic observation.

Source: Survey conducted by the Authors.

gave high degrees of importance to the area itself in site selection. It was also reported that nearly 60 percent of all those surveyed disagreed as to the need for more traveler services in the area. The conclusion seems to be rather clear that a majority do not desire more economic development in outdoor recreation areas.

CHAPTER V. SUMMARY AND CONCLUSIONS

The objective of this study was to determine the effects of limited access highways on outdoor recreation in Arkansas and provide useful information for the establishment of priorities in the construction and development of limited access highways. A summary of the major findings is provided in this section and is organized in terms of the specific objectives of the study, which were:

1. To provide a general overview of traveler attitudes which relate to interstate-freeway type highways.
2. To determine traveler attitudes concerning the relative importance of access and of the area itself in site selection.
3. To determine the importance of selected highway characteristics in route selection.
4. To compare various types of outdoor recreation as to attitude, trip characteristics, and demographic characteristics.
5. To compare attitudes and characteristics of persons interviewed near and far from existing interstates.
6. To evaluate the outdoor recreationist's attitude toward economic development in recreation areas.

The initial objective was to simply provide an overview of the survey findings. Specific measurements were made of the various attitudes and characteristics of visitors to outdoor recreation areas. This was a very detailed section with later sections providing an in-depth evaluation of the relationships. Some of the more significant conclusions are summarized in the paragraphs to follow.

With regard to traveler attitudes concerning the relative importance of access and of the area itself in site selection, the basic conclusion is that area itself is much more important than is access. Even where some

sub-group indicated a high degree of importance to access, in almost all cases, that sub-group still gave significantly more importance to area than to access.

The study sought to determine specifically the distance the recreationist is willing to travel from interstate-freeway type highways to a site for outdoor recreation. The general patterns were as would be expected with greater importance given to access by those willing to drive shorter distances. Even though the contrast is not so pronounced, there was some tendency for area to be of greater relative importance the farther the distance the recreationist will travel from an interstate. A significantly greater proportion of all travel distance sub-groups give importance to area than give importance to access in site choice.

A substantial portion of those giving importance to access were actually willing to drive some distance from the interstate in order to reach a recreational site. When this is considered in conjunction with the conclusion concerning greater relative importance of area and with the relatively strong desire for good connecting roads, the conclusion seems to be clear that outdoor recreationists do not strongly prefer that interstate-freeway type highways be built close to recreation sites. Their preference is actually for good secondary roads leading to recreational areas, which is a conclusion reached in the section concerned with route selection.

A look at various trip and demographic characteristics leads to the conclusion that the attitude of outdoor recreationists is that direct access to interstate-freeway type highways is really not very important. This is the view regardless of trip or demographic characteristics. The more predominant view is that convenient access is desirable and that better connecting roads to recreational areas are needed.

Interstate-freeway type highways do not seem to be a high priority consideration that is greatly important to the outdoor recreationist in route choice. The availability of all-weather (secondary) roads leading to area is given greater importance. This is the clear indication since 90.5 percent of those whose purpose is outdoor recreation give importance to all-weather roads, while only 42.7 percent of them give importance to interstate-freeway type highways. In practically all sub-categories of both trip and demographic characteristics, a majority proportion indicates little or no importance of interstates in route choice. The only trip characteristics where a majority indicated interstates were important in route choice were where origin was from other states, where destination was in border states, where mode of transportation was motor home, and where round-trip distance was 400-599 miles. In each of these trip characteristics, it was by only a slight majority. As for demographic characteristics, importance of interstates in route choice was expressed only by those whose age was 18-24 and 45-54 and by the female respondents. In contrast very large majorities of all sub-groups for both trip and demographic characteristics indicated importance of all-weather (secondary) roads in route choice.

It was found that all outdoor recreation types placed significantly greater importance upon the area itself than upon access in site choice. Future analysis of recreationists' preferences concerning this may not need to be divided into various types but can concentrate more on outdoor recreation as a whole. All groups seemed willing to travel substantial distances from the interstates to find a good site. A majority indicated they felt no more traveler services were needed. There were significant differences between the recreation types as to trip characteristics and demographic characteristics. Perhaps most interesting of the trip characteristic

differences were those of hunters, who seemed more different from the average than other types. As for the demographic characteristics, perhaps most interesting were the large percentages in each recreation type of higher income people, the relatively high frequency of professional, technical, or managerial occupation group, the very low percent of non-whites, and the significantly higher percentage of campers being older than was found for other recreation groups.

An evaluation of visitors to different type areas is summarized below. The type areas included state parks, national parks or rivers, national forest Areas, wildlife refuges, Corps of Engineers Areas, and primitive camp areas. Visitors to all type areas placed significantly greater importance upon the area itself than upon access in site choice. It may be advisable to divide the visitors into those visiting different type sites in evaluating attitudes and preferences. Of particular significance were the differences in the characteristics of visitors to national wildlife refuges. These particular visitors placed even less importance upon access by interstates than did other type area visitors. Apparently they wanted their outdoor recreation areas left pretty much the way nature provided.

A comparison of those visiting areas near and far from interstates does not change materially the conclusions reached already. Only a slightly greater desire for interstates was found among those in areas far from interstates. It was also found that, as one would expect, those in areas near interstates tended to prefer access to a greater degree than others. The area itself was found to be of greater importance to those in areas far from interstates.

With regard to the outdoor recreationist's attitude toward economic development in recreation areas, the following is concluded. Those who

place importance upon access tend also to place importance upon economic development in the area. This is certainly a consistent attitude, but the fact remains that the factor of greatest importance to the outdoor recreationist is the area itself. It was demonstrated that both those agreeing and those disagreeing on the matter of economic development gave high degrees of importance to the area itself in site selection. It was also reported that nearly 60 percent of all those surveyed disagreed as to the need for more traveler services in the area. The conclusion seems clear that a majority do not desire more economic development in outdoor recreation areas.

APPENDIX I

QUESTIONNAIRE

OUTDOOR RECREATION QUESTIONNAIRE

Arkansas State University
State University, AR 72467

Site Code

This study is being conducted by a team of economists from Arkansas State University to determine the effects of interstate-freeway type highways on outdoor recreational travel. It does not pertain to any specific route or to establishment of toll facilities. Replies will be handled in strictest confidence and will be used only in statistical analysis. PLEASE DO NOT SIGN YOUR NAME.

I. TRAVELER ATTITUDES

1. In your choice of an outdoor recreational site such as this one, which one of the following statements best expresses your preference:

   There should be direct access (10 miles or under) to interstate-freeway type highways..... ☐

   There should be convenient access (11 to 50 miles) to interstate-freeway type highways..... ☐

   There should be remote access (over 50 miles) to interstate-freeway type highways..... ☐

   There should be no access to interstate-freeway type highways with only all-weather roads leading to area..... ☐

2. In selecting a recreational site, which of the following represents the distance from an interstate-freeway type highway you would be willing to travel:

0-10 Miles	11-25 Miles	26-50 Miles	51-100 Miles	Over 100 Miles
☐	☐	☐	☐	☐

3. Indicate your agreement or disagreement with the following statements:

	Strongly Disagree	Disagree	Agree	Strongly Agree
Arkansas needs more interstate-freeway type highways serving its outdoor recreational areas.....	☐	☐	☐	☐
Arkansas needs better connecting roads from interstate-freeway type highways to recreational areas.....	☐	☐	☐	☐
This area needs more traveler services such as restaurants, motels, service stations, and the like.....	☐	☐	☐	☐

4. SITE SELECTION: In your selection of an outdoor recreational site, how important would each of the following be:

	No Importance	Little Importance	Some Importance	Great Importance
Access to interstate-freeway type highways.....	☐	☐	☐	☐
The area itself.....	☐	☐	☐	☐

5. ROUTE SELECTION: In your selection of a route to an outdoor recreational site, how important would each of the following highway characteristics be:

Interstate-freeway type highways leading to area.....	☐	☐	☐	☐
All-weather (secondary) roads leading to area.....	☐	☐	☐	☐
Scenic nature of highway.....	☐	☐	☐	☐
Directness to destination.....	☐	☐	☐	☐
Availability of traveler services.	☐	☐	☐	☐

6. ACTIVITIES SELECTION: Check at the left those activities in which you are participating on this trip; then indicate how important access to an interstate-freeway type highway would be in your selection of a site for those activities:

☐ Hiking/backpacking.....	☐	☐	☐	☐
☐ Picnicing/sightseeing.....	☐	☐	☐	☐
☐ Fishing.....	☐	☐	☐	☐
☐ Hunting.....	☐	☐	☐	☐
☐ Camping.....	☐	☐	☐	☐
☐ Boating/skiing/swimming.....	☐	☐	☐	☐
☐ Visiting historical sites or hobby and cultural centers.	☐	☐	☐	☐

7. Additional comments about travel to outdoor recreational sites in Arkansas:

_____

_____

_____

II. TRIP CHARACTERISTICS

1. Residence: City_____ State_____ ZIP_____

   Trip Destination:_____

2. Primary purpose of this trip:
   - Visit friends or relatives... ☐
   - Personal business..... ☐
   - Business or convention..... ☐
   - Outdoor recreation..... ☐
   - Sightseeing/entertainment.... ☐
   - Other_____... ☐

3. Duration of trip:
   - No nights away from home..... ☐
   - 1 to 2 nights..... ☐
   - 3 to 5 nights..... ☐
   - 6 to 15 nights..... ☐
   - 16 nights or longer..... ☐

4. Primary mode of travel:
   - Auto or truck (without camping equipment)..... ☐
   - Auto or truck (with camping equipment)..... ☐
   - Motor home..... ☐
   - Bus..... ☐
   - Train..... ☐
   - Air..... ☐
   - Other_____... ☐

5. Number of persons in vehicle:
   - 1 person..... ☐
   - 2 persons..... ☐
   - 3 to 5 persons..... ☐
   - 6 persons or more..... ☐

6. Round trip distance:
   - Less than 200 miles..... ☐
   - 200 to 399 miles..... ☐
   - 400 to 599 miles..... ☐
   - 600 to 799 miles..... ☐
   - 800 to 999 miles..... ☐
   - 1,000 to 1,999 miles..... ☐
   - 2,000 miles or more..... ☐

7. Main type of lodging on trip:
   - No lodging required..... ☐
   - Friends or relatives..... ☐
   - Hotel or motel..... ☐
   - Camping (tent, truck, trailer).. ☐
   - Own house or cabin..... ☐
   - Other_____... ☐

8. Have you visited this site before?
   Yes... ☐ No... ☐

III. TRAVELER DEMOGRAPHIC CHARACTERISTICS

1. Are you a household head? Yes... ☐ No... ☐

2. Age:
   - Under 18 years..... ☐
   - 18 to 24 years..... ☐
   - 25 to 34 years..... ☐
   - 35 to 44 years..... ☐
   - 45 to 54 years..... ☐
   - 55 to 64 years..... ☐
   - 65 years and over..... ☐

3. Sex:
   Male.... ☐ Female... ☐

4. Race:
   White... ☐ Nonwhite... ☐

5. Highest level of education:
   - Elementary school or less.... ☐
   - High school..... ☐
   - Post-high school/college..... ☐

6. Occupation of household head:
   - Professional, technical, or managerial..... ☐
   - Farm--owner, manager, laborer.. ☐
   - Clerical, sales..... ☐
   - Craftsman, operative, laborer.. ☐
   - Household, service employee.... ☐
   - Self employed..... ☐
   - Retired person..... ☐
   - Other_____... ☐

7. Family income:
   - Under $5,000..... ☐
   - $5,000 to $7,499..... ☐
   - $7,500 to $9,999..... ☐
   - $10,000 to $14,999..... ☐
   - $15,000 to $19,999..... ☐
   - $20,000 to $29,999..... ☐
   - $30,000 and over..... ☐

THE APPENDIX TABLES SHOWN IN THE FOLLOWING APPENDICES REPRESENT A SELECTED NUMBER OF IMPORTANT CROSSTABULATIONS THAT CAN BE OF INTEREST TO THE READER OF THIS REPORT. A COMPLETE SET OF COMPUTERIZED DATA ON THE SURVEY CONDUCTED IN CONNECTION WITH THIS STUDY IS PRESENTED IN A SEPARATE COVER.

APPENDIX II

SELECTED CROSSTABULATIONS CONCERNING PREFERENCE FOR ACCESS TO INTERSTATES

APPENDIX TABLE A-1

Crosstabulation of
Distance Will Travel from Interstate (VAR02)
By Preference for Access to Interstate (VAR01)

	VAR01				
	COUNT / ROW PCT / COL PCT / TOT PCT	DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
VAR02						
1. 0-10 MILES		116	14	2	21	153
		75.8	9.2	1.3	13.7	8.9
		38.4	2.0	0.9	4.4	
		6.7	0.8	0.1	1.2	
2. 11-25 MILES		110	221	12	69	412
		26.7	53.6	2.9	16.7	23.9
		36.4	30.8	5.3	14.4	
		6.4	12.8	0.7	4.0	
3. 26-50 MILES		46	307	56	116	525
		8.8	58.5	10.7	22.1	30.5
		15.2	42.8	24.8	24.2	
		2.7	17.8	3.2	6.7	
4. 51-100 MILES		15	104	85	85	289
		5.2	36.0	29.4	29.4	16.8
		5.0	14.5	37.6	17.7	
		0.9	6.0	4.9	4.9	
5. OVER 100MILES		15	71	71	188	345
		4.3	20.6	20.6	54.5	20.0
		5.0	9.9	31.4	39.2	
		0.9	4.1	4.1	10.9	
COLUMN TOTAL		302	717	226	479	1724
		17.5	41.6	13.1	27.8	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-2

Crosstabulation of
Importance of Scenic Highway in Route Choice (VAR10)
by Preference for Access to Interstate (VAR01)

VAR10		VAR01 1. DIRECT	2. CONVENT	3. REMOTE	4. NO ACCESS	ROW TOTAL
1. NOT	COUNT	11	21	17	47	96
	ROW PCT	11.5	21.9	17.7	49.0	5.7
	COL PCT	3.8	3.0	7.6	10.0	
	TOT PCT	0.7	1.3	1.0	2.8	
2. LITTLE	COUNT	39	82	29	65	215
	ROW PCT	18.1	38.1	13.5	30.2	12.8
	COL PCT	13.5	11.8	13.0	13.8	
	TOT PCT	2.3	4.9	1.7	3.9	
3. SOME	COUNT	117	278	90	161	646
	ROW PCT	18.1	43.0	13.9	24.9	38.5
	COL PCT	40.6	39.9	40.4	34.3	
	TOT PCT	7.0	16.6	5.4	9.6	
4. GREAT	COUNT	121	316	87	197	721
	ROW PCT	16.8	43.8	12.1	27.3	43.0
	COL PCT	42.0	45.3	39.0	41.9	
	TOT PCT	7.2	18.8	5.2	11.7	
COLUMN TOTAL		288	697	223	470	1679
		17.2	41.5	13.3	28.0	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-3

Crosstabulation of
Importance of Directness in Route Choice (VAR11)
by Preference for Access to Interstate (VAR01)

VAR11	COUNT / ROW PCT / COL PCT / TOT PCT	VAR01 1. DIRECT	2. CONVENT	3. REMOTE	4. NO ACCESS	ROW TOTAL
1. NOT IMPORTNT		8	23	22	71	124
		6.5	18.5	17.7	57.3	7.5
		2.8	3.4	10.0	15.3	
		0.5	1.4	1.3	4.3	
2. LITTLE IMPORTNT		37	126	52	133	348
		10.6	36.2	14.9	38.2	21.0
		12.8	18.4	23.5	28.7	
		2.2	7.6	3.1	8.0	
3. SOME IMPORTNT		108	312	98	166	684
		15.8	45.6	14.3	24.3	41.2
		37.4	45.5	44.3	35.9	
		6.5	18.8	5.9	10.0	
4. GREAT IMPORTNT		136	225	49	93	503
		27.0	44.7	9.7	18.5	30.3
		47.1	32.8	22.2	20.1	
		8.2	13.6	3.0	5.6	
COLUMN TOTAL		289	686	221	463	1659
		17.4	41.4	13.3	27.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-4

Crosstabulation of
Importance of Services in Route Choice (VAR12)
by Preference for Access to Interstate (VAR01)

VAR12	COUNT / ROW PCT / COL PCT / TOT PCT	VAR01 1. DIRECT	2. CONVENT	3. REMOTE	4. NO ACCESS	ROW TOTAL
1. NOT IMPORTNT		21	46	29	100	196
		10.7	23.5	14.8	51.0	11.8
		7.3	6.7	13.1	21.4	
		1.3	2.8	1.7	6.0	
2. LITTLE IMPORTNT		30	125	61	117	333
		9.0	37.5	18.3	35.1	20.0
		10.4	18.1	27.6	25.1	
		1.8	7.5	3.7	7.0	
3. SOME IMPORTNT		103	291	97	172	663
		15.5	43.9	14.6	25.9	39.8
		35.6	42.2	43.9	36.8	
		6.2	17.5	5.8	10.3	
4. GREAT IMPORTNT		135	227	34	78	474
		28.5	47.9	7.2	16.5	28.5
		46.7	32.9	15.4	16.7	
		8.1	13.6	2.0	4.7	
COLUMN TOTAL		289	689	221	467	1666
		17.3	41.4	13.3	28.0	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-5

Crosstabulation of
Importance of Access in Hiking-Backpacking (VAR13)
by Preference for Access to Interstate (VAR01)

		VAR01				
	COUNT / ROW PCT / COL PCT / TOT PCT	DIRECT 1.	CONVEN'T 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
VAR13						
NOT IMPORTNT	1.	20	56	28	59	163
		12.3	34.4	17.2	36.2	37.0
		29.4	30.1	40.6	50.4	
		4.5	12.7	6.4	13.4	
LITTLE IMPORTNT	2.	10	48	15	27	100
		10.0	48.0	15.0	27.0	22.7
		14.7	25.8	21.7	23.1	
		2.3	10.9	3.4	6.1	
SOME IMPORTNT	3.	22	60	20	19	121
		18.2	49.6	16.5	15.7	27.5
		32.4	32.3	29.0	16.2	
		5.0	13.6	4.5	4.3	
GREAT IMPORTNT	4.	16	22	6	12	56
		28.6	39.3	10.7	21.4	12.7
		23.5	11.8	8.7	10.3	
		3.6	5.0	1.4	2.7	
	COLUMN TOTAL	68	186	69	117	440
		15.5	42.3	15.7	26.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-6

Crosstabulation of
Importance of Access in Picnic-Sightseeing (VAR14)
by Preference for Access to Interstate (VAR01)

VAR14		VAR01 DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
1. NOT	COUNT	17	48	28	101	194
	ROW PCT	8.8	24.7	14.4	52.1	19.0
	COL PCT	9.5	10.5	22.0	38.5	
	TOT PCT	1.7	4.7	2.7	9.9	
2. LITTLE	COUNT	20	82	32	39	173
	ROW PCT	11.6	47.4	18.5	22.5	16.9
	COL PCT	11.2	18.0	25.2	14.9	
	TOT PCT	2.0	8.0	3.1	3.8	
3. SOME	COUNT	64	189	37	63	353
	ROW PCT	18.1	53.5	10.5	17.8	34.5
	COL PCT	35.8	41.5	29.1	24.0	
	TOT PCT	6.3	18.5	3.6	6.2	
4. GREAT	COUNT	78	136	30	59	303
	ROW PCT	25.7	44.9	9.9	19.5	29.6
	COL PCT	43.6	29.9	23.6	22.5	
	TOT PCT	7.6	13.3	2.9	5.8	
COLUMN TOTAL		179	455	127	262	1023
		17.5	44.5	12.4	25.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-7

Crosstabulation of
Importance of Access in Fishing (VAR15)
by Preference for Access to Interstate (VAR01)

		VAR01				
	COUNT / ROW PCT / COL PCT / TOT PCT	DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
VAR15						
1. NOT IMPORTNT		18	50	28	110	206
		8.7	24.3	13.6	53.4	23.5
		13.1	14.2	27.2	38.7	
		2.1	5.7	3.2	12.6	
2. LITTLE IMPORTNT		17	71	22	48	158
		10.8	44.9	13.9	30.4	18.1
		12.4	20.2	21.4	16.9	
		1.9	8.1	2.5	5.5	
3. SOME IMPORTNT		36	116	25	62	239
		15.1	48.5	10.5	25.9	27.3
		26.3	33.0	24.3	21.8	
		4.1	13.3	2.9	7.1	
4. GREAT IMPORTNT		66	114	28	64	272
		24.3	41.9	10.3	23.5	31.1
		48.2	32.5	27.2	22.5	
		7.5	13.0	3.2	7.3	
COLUMN TOTAL		137	351	103	284	875
		15.7	40.1	11.8	32.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-8

Crosstabulation of
Importance of Access in Hunting (VAR16)
by Preference for Access to Interstate (VAR01)

VAR16	COUNT / ROW PCT / COL PCT / TOT PCT	VAR01 DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
1. NOT	IMPORTNT	13	53	34	66	166
		7.8	31.9	20.5	39.8	40.9
		20.3	33.8	53.1	54.5	
		3.2	13.1	8.4	16.3	
2. LITTLE	IMPORTNT	7	23	13	21	64
		10.9	35.9	20.3	32.8	15.8
		10.9	14.6	20.3	17.4	
		1.7	5.7	3.2	5.2	
3. SOME	IMPORTNT	14	43	7	13	77
		18.2	55.8	9.1	16.9	19.0
		21.9	27.4	10.9	10.7	
		3.4	10.6	1.7	3.2	
4. GREAT	IMPORTNT	30	38	10	21	99
		30.3	38.4	10.1	21.2	24.4
		46.9	24.2	15.6	17.4	
		7.4	9.4	2.5	5.2	
COLUMN TOTAL		64	157	64	121	406
		15.8	38.7	15.8	29.8	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-9

Crosstabulation of
Importance of Access in Camping (VAR17)
by Preference for Access to Interstate (VAR01)

		VAR01				
	COUNT / ROW PCT / COL PCT / TOT PCT	DIRECT 1.	CONVEN'T 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
VAR17						
1. NOT IMPORTNT		13	56	50	120	239
		5.4	23.4	20.9	50.2	18.1
		5.9	10.0	27.9	33.0	
		1.0	4.2	3.8	9.1	
2. LITTLE IMPORTNT		12	92	38	48	190
		6.3	48.4	20.0	25.3	14.4
		5.5	16.5	21.2	13.2	
		0.9	7.0	2.9	3.6	
3. SOME IMPORTNT		67	210	35	92	404
		16.6	52.0	8.7	22.8	30.6
		30.5	37.6	19.6	25.3	
		5.1	15.9	2.6	7.0	
4. GREAT IMPORTNT		128	200	56	104	488
		26.2	41.0	11.5	21.3	36.9
		58.2	35.8	31.3	28.6	
		9.7	15.1	4.2	7.9	
COLUMN TOTAL		220	558	179	364	1321
		16.7	42.2	13.6	27.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-10

Crosstabulation of
Importance of Access in Boating-Skiing-Swimming (VAR18)
by Preference for Access to Interstate (VAR01)

VAR18	COUNT / ROW PCT / COL PCT / TOT PCT	VAR01 DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
1. NOT IMPORTNT	COUNT	17	35	33	81	166
	ROW PCT	10.2	21.1	19.9	48.8	19.4
	COL PCT	11.4	9.5	28.7	36.3	
	TOT PCT	2.0	4.1	3.9	9.5	
2. LITTLE IMPORTNT	COUNT	12	74	23	35	144
	ROW PCT	8.3	51.4	16.0	24.3	16.8
	COL PCT	8.1	20.1	20.0	15.7	
	TOT PCT	1.4	8.7	2.7	4.1	
3. SOME IMPORTNT	COUNT	51	134	26	59	270
	ROW PCT	18.9	49.6	9.6	21.9	31.6
	COL PCT	34.2	36.4	22.6	26.5	
	TOT PCT	6.0	15.7	3.0	6.9	
4. GREAT IMPORTNT	COUNT	69	125	33	48	275
	ROW PCT	25.1	45.5	12.0	17.5	32.2
	COL PCT	46.3	34.0	28.7	21.5	
	TOT PCT	8.1	14.6	3.9	5.6	
COLUMN TOTAL		149	368	115	223	855
		17.4	43.0	13.5	26.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-11

Crosstabulation of
Importance of Access in Visiting Historical Sites (VAR19)
by Preference for Access to Interstate (VAR01)

VAR19		VAR01 DIRECT 1.	CONVENT 2.	REMOTE 3.	NO ACCESS 4.	ROW TOTAL
1. NOT IMPORTNT	COUNT	13	24	15	50	102
	ROW PCT	12.7	23.5	14.7	49.0	15.6
	COL PCT	12.1	8.1	16.5	31.4	
	TOT PCT	2.0	3.7	2.3	7.7	
2. LITTLE IMPORTNT	COUNT	5	53	20	28	106
	ROW PCT	4.7	50.0	18.9	26.4	16.2
	COL PCT	4.7	17.9	22.0	17.6	
	TOT PCT	0.8	8.1	3.1	4.3	
3. SOME IMPORTNT	COUNT	33	118	29	39	219
	ROW PCT	15.1	53.9	13.2	17.8	33.5
	COL PCT	30.8	39.9	31.9	24.5	
	TOT PCT	5.1	18.1	4.4	6.0	
4. GREAT IMPORTNT	COUNT	56	101	27	42	226
	ROW PCT	24.8	44.7	11.9	18.6	34.6
	COL PCT	52.3	34.1	29.7	26.4	
	TOT PCT	8.6	15.5	4.1	6.4	
COLUMN TOTAL		107	296	91	159	653
		16.4	45.3	13.9	24.3	100.0

Source: Survey conducted by the Authors.

APPENDIX III

SELECTED CROSSTABULATIONS CONCERNING AGREEMENT WITH STATEMENT THAT ARKANSAS NEEDS BETTER CONNECTING ROADS SERVING ITS OUTDOOR RECREATIONAL AREAS

APPENDIX TABLE A-12

Crosstabulation of
Distance Will Travel from Interstate (VAR02)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR02				
0-10 MILES	1.	37	110	147
		25.2	74.8	8.7
		6.3	10.0	
		2.2	6.5	
11-25 MILES	2.	101	304	405
		24.9	75.1	23.9
		17.2	27.5	
		6.0	18.0	
26-50 MILES	3.	154	358	512
		30.1	69.9	30.3
		26.2	32.4	
		9.1	21.2	
51-100 MILES	4.	119	169	288
		41.3	58.7	17.0
		20.3	15.3	
		7.0	10.0	
OVER 100MILES	5.	176	164	340
		51.8	48.2	20.1
		30.0	14.8	
		10.4	9.7	
	COLUMN TOTAL	587	1105	1692
		34.7	65.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-13

Crosstabulation of
Importance of Scenic Highway in Route Choice (VAR10)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR10				
1. NOT IMPORTNT		115	189	304
		37.8	62.2	18.4
		19.7	17.7	
		7.0	11.5	
2. IMPORTNT		469	877	1346
		34.8	65.2	81.6
		80.3	82.3	
		28.4	53.2	
COLUMN TOTAL		584	1066	1650
		35.4	64.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-14

Crosstabulation of
Importance of Directness in Route Choice (VAR11)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	1. DISAGREE	2. AGREE	ROW TOTAL
VAR11				
1. NOT IMPORTNT		222	244	466
		47.6	52.4	28.5
		38.3	23.1	
		13.6	14.9	
2. IMPORTNT		358	810	1168
		30.7	69.3	71.5
		61.7	76.9	
		21.9	49.6	
COLUMN TOTAL		580	1054	1634
		35.5	64.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-15

Crosstabulation of
Importance of Services in Route Choice (VAR12)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR12				
NOT IMPORTNT	1.	252	271	523
		48.2	51.8	31.9
		44.1	25.4	
		15.4	16.5	
IMPORTNT	2.	320	797	1117
		28.6	71.4	68.1
		55.9	74.6	
		19.5	48.6	
	COLUMN TOTAL	572	1068	1640
		34.9	65.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-16

Crosstabulation of
Importance of Access in Hiking-Backpacking (VAR13)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR13				
1. NOT IMPORTNT		81	82	163
		49.7	50.3	37.4
		47.1	31.1	
		18.6	18.8	
2. LITTLE IMPORTNT		42	58	100
		42.0	58.0	22.9
		24.4	22.0	
		9.6	13.3	
3. SOME IMPORTNT		32	85	117
		27.4	72.6	26.8
		18.6	32.2	
		7.3	19.5	
4. GREAT IMPORTNT		17	39	56
		30.4	69.6	12.8
		9.9	14.8	
		3.9	8.9	
COLUMN TOTAL		172	264	436
		39.4	60.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-17

Crosstabulation of
Importance of Access in Picnic-Sightseeing (VAR14)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	1. DISAGREE	2. AGREE	ROW TOTAL
VAR14				
1. NOT IMPORTNT		104	88	192
		54.2	45.8	19.0
		30.9	13.1	
		10.3	8.7	
2. LITTLE IMPORTNT		62	109	171
		36.3	63.7	17.0
		18.4	16.2	
		6.2	10.8	
3. SOME IMPORTNT		101	246	347
		29.1	70.9	34.4
		30.0	36.7	
		10.0	24.4	
4. GREAT IMPORTNT		70	228	298
		23.5	76.5	29.6
		20.8	34.0	
		6.9	22.6	
COLUMN TOTAL		337	671	1008
		33.4	66.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-18

Crosstabulation of
Importance of Access in Fishing (VAR15)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR15				
1. NOT IMPORTNT		117	87	204
		57.4	42.6	23.6
		36.1	16.1	
		13.6	10.1	
2. LITTLE IMPORTNT		63	94	157
		40.1	59.9	18.2
		19.4	17.4	
		7.3	10.9	
3. SOME IMPORTNT		69	168	237
		29.1	70.9	27.5
		21.3	31.2	
		8.0	19.5	
4. GREAT IMPORTNT		75	190	265
		28.3	71.7	30.7
		23.1	35.3	
		8.7	22.0	
COLUMN TOTAL		324	539	863
		37.5	62.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-19

Crosstabulation of
Importance of Access in Hunting (VAR16)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR16				
1. NOT IMPORTNT		87	76	163
		53.4	46.6	40.6
		57.2	30.5	
		21.7	19.0	
2. LITTLE IMPORTNT		20	44	64
		31.3	68.8	16.0
		13.2	17.7	
		5.0	11.0	
3. SOME IMPORTNT		22	55	77
		28.6	71.4	19.2
		14.5	22.1	
		5.5	13.7	
4. GREAT IMPORTNT		23	74	97
		23.7	76.3	24.2
		15.1	29.7	
		5.7	18.5	
COLUMN TOTAL		152	249	401
		37.9	62.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-20

Crosstabulation of
Importance of Access in Camping (VAR17)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	1. DISAGREE	2. AGREE	ROW TOTAL
VAR17				
1. NOT IMPORTNT		145	91	236
		61.4	38.6	18.2
		30.8	11.0	
		11.2	7.0	
2. LITTLE IMPORTNT		86	101	187
		46.0	54.0	14.4
		18.3	12.2	
		6.6	7.8	
3. SOME IMPORTNT		94	304	398
		23.6	76.4	30.7
		20.0	36.8	
		7.2	23.4	
4. GREAT IMPORTNT		146	330	476
		30.7	69.3	36.7
		31.0	40.0	
		11.3	25.4	
COLUMN TOTAL		471	826	1297
		36.3	63.7	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-21

Crosstabulation of
Importance of Access in Boating-Skiing-Swimming (VAR18)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	1.DISAGREE	2.AGREE	ROW TOTAL
VAR18				
1. NOT IMPORTNT		88	78	166
		53.0	47.0	19.6
		29.9	14.1	
		10.4	9.2	
2. LITTLE IMPORTNT		60	80	140
		42.9	57.1	16.5
		20.4	14.5	
		7.1	9.5	
3. SOME IMPORTNT		79	190	269
		29.4	70.6	31.8
		26.9	34.4	
		9.3	22.5	
4. GREAT IMPORTNT		67	204	271
		24.7	75.3	32.0
		22.8	37.0	
		7.9	24.1	
COLUMN TOTAL		294	552	846
		34.8	65.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-22

Crosstabulation of
Importance of Access in Visiting Historical Sites (VAR19)
by Arkansas Needs Better Connecting Roads (VAR04)

		VAR04		
	COUNT / ROW PCT / COL PCT / TOT PCT	DISAGREE 1.	AGREE 2.	ROW TOTAL
VAR19				
1. NOT IMPORTNT		53	48	101
		52.5	47.5	15.8
		25.0	11.2	
		8.3	7.5	
2. LITTLE IMPORTNT		44	59	103
		42.7	57.3	16.1
		20.8	13.8	
		6.9	9.2	
3. SOME IMPORTNT		59	154	213
		27.7	72.3	33.3
		27.8	36.1	
		9.2	24.1	
4. GREAT IMPORTNT		56	166	222
		25.2	74.8	34.7
		26.4	38.9	
		8.8	26.0	
COLUMN TOTAL		212	427	639
		33.2	66.8	100.0

Source: Survey conducted by the Authors.

APPENDIX IV

SELECTED CROSSTABULATIONS CONCERNING IMPORTANCE OF ACCESS IN SITE CHOICE

APPENDIX TABLE A-23

Crosstabulation of
Preference for Access to Interstate (VAR01)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR01				
1. DIRECT		54	234	288
		18.8	81.3	17.0
		5.8	30.9	
		3.2	13.8	
2. CONVEN'T		314	393	707
		44.4	55.6	41.8
		33.5	51.9	
		18.5	23.2	
3. REMOTE		174	49	223
		78.0	22.0	13.2
		18.6	6.5	
		10.3	2.9	
4. NO ACCESS		394	81	475
		82.9	17.1	28.1
		42.1	10.7	
		23.3	4.8	
COLUMN TOTAL		936	757	1693
		55.3	44.7	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-24

Crosstabulation of
Distance Will Travel from Interstate (VAR02)
by Importance of Access in Site Choice (VAR06)

VAR02		VAR06 NOT IMPORTNT (1.)	IMPORTNT (2.)	ROW TOTAL
1. 0-10	MILES	28	115	143
	ROW PCT	19.6	80.4	8.5
	COL PCT	3.0	15.3	
	TOT PCT	1.7	6.8	
2. 11-25	MILES	152	251	403
	ROW PCT	37.7	62.3	24.0
	COL PCT	16.4	33.3	
	TOT PCT	9.0	14.9	
3. 26-50	MILES	269	248	517
	ROW PCT	52.0	48.0	30.8
	COL PCT	29.0	32.9	
	TOT PCT	16.0	14.8	
4. 51-100	MILES	197	85	282
	ROW PCT	69.9	30.1	16.8
	COL PCT	21.3	11.3	
	TOT PCT	11.7	5.1	
5. OVER 100	MILES	280	55	335
	ROW PCT	83.6	16.4	19.9
	COL PCT	30.2	7.3	
	TOT PCT	16.7	3.3	
COLUMN TOTAL		926	754	1680
		55.1	44.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-25

Crosstabulation of
Arkansas Needs More Interstate Highways (VAR03)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR03				
1. STRONG DISAGREE		222	27	249
		89.2	10.8	15.0
		23.9	3.7	
		13.4	1.6	
2. DISAGREE		489	186	675
		72.4	27.6	40.7
		52.8	25.4	
		29.5	11.2	
3. AGREE		192	396	588
		32.7	67.3	35.4
		20.7	54.1	
		11.6	23.9	
4. STRONG AGREE		24	123	147
		16.3	83.7	8.9
		2.6	16.8	
		1.4	7.4	
COLUMN TOTAL		927	732	1659
		55.9	44.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-26

Crosstabulation of
Arkansas Needs Better Connecting Roads (VAR04)
by Importance of Access in Site Choice (VAR06)

VAR04		VAR06 NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
1. STRONG	DISAGREE	95	14	109
		87.2	12.8	6.6
		10.2	1.9	
		5.7	0.8	
2. DISAGREE		349	130	479
		72.9	27.1	28.8
		37.6	17.6	
		21.0	7.8	
3. AGREE		387	422	809
		47.8	52.2	48.6
		41.7	57.3	
		23.3	25.4	
4. STRONG	AGREE	96	171	267
		36.0	64.0	16.0
		10.4	23.2	
		5.8	10.3	
COLUMN TOTAL		927	737	1664
		55.7	44.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-27

Crosstabulation of
This Area Needs More Traveler Services (VAR05)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR05				
1. STRONG DISAGREE		214	69	283
		75.6	24.4	17.1
		23.1	9.4	
		12.9	4.2	
2. DISAGREE		443	273	716
		61.9	38.1	43.2
		47.8	37.3	
		26.7	16.5	
3. AGREE		214	261	475
		45.1	54.9	28.6
		23.1	35.7	
		12.9	15.7	
4. STRONG AGREE		56	129	185
		30.3	69.7	11.2
		6.0	17.6	
		3.4	7.8	
COLUMN TOTAL		927	732	1659
		55.9	44.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-28

Crosstabulation of
Importance of Access in Hiking-Backpacking (VAR13)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR13				
1. NOT IMPORTNT		119	42	161
		73.9	26.1	37.4
		48.2	22.8	
		27.6	9.7	
2. LITTLE IMPORTNT		64	36	100
		64.0	36.0	23.2
		25.9	19.6	
		14.8	8.4	
3. SOME IMPORTNT		43	75	118
		36.4	63.6	27.4
		17.4	40.8	
		10.0	17.4	
4. GREAT IMPORTNT		21	31	52
		40.4	59.6	12.1
		8.5	16.8	
		4.9	7.2	
COLUMN TOTAL		247	184	431
		57.3	42.7	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-29

Crosstabulation of
Importance of Access in Picnic-Sightseeing (VAR14)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR14				
1. NOT IMPORTNT		154	40	194
		79.4	20.6	19.3
		29.4	8.3	
		15.3	4.0	
2. LITTLE IMPORTNT		116	55	171
		67.8	32.2	17.0
		22.1	11.4	
		11.5	5.5	
3. SOME IMPORTNT		141	205	346
		40.8	59.2	34.4
		26.9	42.5	
		14.0	20.4	
4. GREAT IMPORTNT		113	182	295
		38.3	61.7	29.3
		21.6	37.8	
		11.2	18.1	
COLUMN TOTAL		524	482	1006
		52.1	47.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-30

Crosstabulation of
Importance of Access in Fishing (VAR15)
by Importance of Access in Site Choice (VAR06)

VAR15		VAR06 NOT IMPORTNT (1.)	VAR06 IMPORTNT (2.)	ROW TOTAL
1. NOT IMPORTNT	COUNT	168	40	208
	ROW PCT	80.8	19.2	24.2
	COL PCT	33.9	11.0	
	TOT PCT	19.6	4.7	
2. LITTLE IMPORTNT	COUNT	111	47	158
	ROW PCT	70.3	29.7	18.4
	COL PCT	22.4	12.9	
	TOT PCT	12.9	5.5	
3. SOME IMPORTNT	COUNT	97	137	234
	ROW PCT	41.5	58.5	27.3
	COL PCT	19.6	37.7	
	TOT PCT	11.3	16.0	
4. GREAT IMPORTNT	COUNT	119	139	258
	ROW PCT	46.1	53.9	30.1
	COL PCT	24.0	38.3	
	TOT PCT	13.9	16.2	
COLUMN TOTAL		495	363	858
		57.7	42.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-31

Crosstabulation of
Importance of Access in Hunting (VAR16)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR16				
1. NOT IMPORTNT		123	41	164
		75.0	25.0	41.4
		52.1	25.6	
		31.1	10.4	
2. LITTLE IMPORTNT		47	16	63
		74.6	25.4	15.9
		19.9	10.0	
		11.9	4.0	
3. SOME IMPORTNT		28	49	77
		36.4	63.6	19.4
		11.9	30.6	
		7.1	12.4	
4. GREAT IMPORTNT		38	54	92
		41.3	58.7	23.2
		16.1	33.8	
		9.6	13.6	
COLUMN TOTAL		236	160	396
		59.6	40.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-32

Crosstabulation of
Importance of Access in Camping (VAR17)
by Importance of Access in Site Choice (VAR06)

VAR17		VAR06 NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
NOT IMPORTNT	1.	206	32	238
	ROW PCT	86.6	13.4	18.5
	COL PCT	28.8	5.6	
	TOT PCT	16.0	2.5	
LITTLE IMPORTNT	2.	148	42	190
	ROW PCT	77.9	22.1	14.7
	COL PCT	20.7	7.3	
	TOT PCT	11.5	3.3	
SOME	3.	152	245	397
IMPORTNT	ROW PCT	38.3	61.7	30.8
	COL PCT	21.3	42.7	
	TOT PCT	11.8	19.0	
GREAT	4.	209	255	464
IMPORTNT	ROW PCT	45.0	55.0	36.0
	COL PCT	29.2	44.4	
	TOT PCT	16.2	19.8	
COLUMN TOTAL		715	574	1289
		55.5	44.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-33

Crosstabulation of
Importance of Access in Boating-Skiing-Swimming (VAR18)
by Importance of Access in Site Choice (VAR06)

		VAR06		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR18				
NOT IMPORTNT	1.	139	27	166
		83.7	16.3	19.7
		29.6	7.3	
		16.5	3.2	
LITTLE IMPORTNT	2.	106	35	141
		75.2	24.8	16.7
		22.6	9.4	
		12.6	4.2	
SOME IMPORTNT	3.	108	160	268
		40.3	59.7	31.8
		23.0	43.0	
		12.8	19.0	
GREAT IMPORTNT	4.	117	150	267
		43.8	56.2	31.7
		24.9	40.3	
		13.9	17.8	
COLUMN TOTAL		470	372	842
		55.8	44.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-34

Crosstabulation of
Importance of Access in Visiting Historical Sites (VAR19)
by Importance of Access in Site Choice (VAR06)

VAR19		VAR06 NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
NOT IMPORTNT 1.	COUNT	76	22	98
	ROW PCT	77.6	22.4	15.4
	COL PCT	22.7	7.3	
	TOT PCT	11.9	3.4	
LITTLE IMPORTNT 2.	COUNT	68	38	106
	ROW PCT	64.2	35.8	16.6
	COL PCT	20.3	12.5	
	TOT PCT	10.7	6.0	
SOME IMPORTNT 3.	COUNT	101	114	215
	ROW PCT	47.0	53.0	33.7
	COL PCT	30.1	37.6	
	TOT PCT	15.8	17.9	
GREAT IMPORTNT 4.	COUNT	90	129	219
	ROW PCT	41.1	58.9	34.3
	COL PCT	26.9	42.6	
	TOT PCT	14.1	20.2	
COLUMN TOTAL		335 52.5	303 47.5	639 100.0

Source: Survey conducted by the Authors.

APPENDIX V

SELECTED CROSSTABULATIONS CONCERNING IMPORTANCE OF AREA IN SITE CHOICE

APPENDIX TABLE A-35

Crosstabulation of
Number of Facilities (FACIL)
by Importance of Area in Site Choice (VAR07)

FACIL	VAR07 1. NOT IMPORTNT	VAR07 2. IMPORTNT	ROW TOTAL
5.	70	220	290
	24.1	75.9	17.2
	31.0	15.1	
	4.1	13.0	
7.	26	207	233
	11.2	88.8	13.8
	11.5	14.2	
	1.5	12.3	
8.	26	200	226
	11.5	88.5	13.4
	11.5	13.7	
	1.5	11.9	
9.	91	698	789
	11.5	88.5	46.8
	40.3	47.8	
	5.4	41.4	
12.	13	136	149
	8.7	91.3	8.8
	5.8	9.3	
	0.8	8.1	
COLUMN TOTAL	226	1461	1687
	13.4	86.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-36

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of Area in Site Choice (VAR07)

DAYEND	VAR07	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
WEEKEND	1.	107	718	825
	ROW PCT	13.0	87.0	48.9
	COL PCT	47.3	49.1	
	TOT PCT	6.3	42.6	
WEEKDAY	2.	119	743	862
	ROW PCT	13.8	86.2	51.1
	COL PCT	52.7	50.9	
	TOT PCT	7.1	44.0	
	COLUMN TOTAL	226	1461	1687
		13.4	86.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-37

Crosstabulation of
Preference for Access to Interstate (VAR01)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR01				
1. DIRECT		29	263	292
		9.9	90.1	17.3
		12.8	18.0	
		1.7	15.6	
2. CONVEN'T		65	640	705
		9.2	90.8	41.9
		28.8	43.9	
		3.9	38.0	
3. REMOTE		32	187	219
		14.6	85.4	13.0
		14.2	12.8	
		1.9	11.1	
4. NO ACCESS		100	368	468
		21.4	78.6	27.8
		44.2	25.2	
		5.9	21.9	
COLUMN TOTAL		226	1458	1684
		13.4	86.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-38

Crosstabulation of
Distance Will Travel from Interstate (VAR02)
by Importance of Area in Site Choice (VAR07)

VAR02		VAR07 NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
1. 0-10	MILES	12	132	144
		8.3	91.7	8.6
		5.4	9.1	
		0.7	7.9	
2. 11-25	MILES	49	357	406
		12.1	87.9	24.3
		22.0	24.7	
		2.9	21.4	
3. 26-50	MILES	65	446	511
		12.7	87.3	30.6
		29.1	30.8	
		3.9	26.7	
4. 51-100	MILES	44	239	283
		15.5	84.5	16.9
		19.7	16.5	
		2.6	14.3	
5. OVER 100	MILES	53	274	327
		16.2	83.8	19.6
		23.8	18.9	
		3.2	16.4	
COLUMN TOTAL		223	1448	1671
		13.3	86.7	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-39

Crosstabulation of
Importance of Access in Hiking-Backpacking (VAR13)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR13				
1. NOT IMPORTNT		24	135	159
		15.1	84.9	37.1
		45.3	35.9	
		5.6	31.5	
2. LITTLE IMPORTNT		8	89	97
		8.2	91.8	22.6
		15.1	23.7	
		1.9	20.7	
3. SOME IMPORTNT		12	107	119
		10.1	89.9	27.7
		22.6	28.5	
		2.8	24.9	
4. GREAT IMPORTNT		9	45	54
		16.7	83.3	12.6
		17.0	12.0	
		2.1	10.5	
COLUMN TOTAL		53	376	429
		12.4	87.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-40

Crosstabulation of
Importance of Access in Picnic-Sightseeing (VAR14)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR14				
1. NOT IMPORTNT		34	159	193
		17.6	82.4	19.2
		26.6	18.1	
		3.4	15.8	
2. LITTLE IMPORTNT		24	145	169
		14.2	85.8	16.8
		18.8	16.5	
		2.4	14.4	
3. SOME IMPORTNT		34	315	349
		9.7	90.3	34.7
		26.6	35.8	
		3.4	31.3	
4. GREAT IMPORTNT		36	260	296
		12.2	87.8	29.4
		28.1	29.6	
		3.6	25.8	
COLUMN TOTAL		128	879	1007
		12.7	87.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-41

Crosstabulation of
Importance of Access in Fishing (VAR15)
by Importance of Area in Site Choice (VAR07)

VAR15		VAR07 1.	VAR07 2.	ROW TOTAL
	COUNT			
	ROW PCT	NOT	IMPORTNT	
	COL PCT	IMPORTNT		
	TOT PCT			
1. NOT IMPORTNT		55	145	200
		27.5	72.5	23.7
		48.2	19.8	
		6.5	17.2	
2. LITTLE IMPORTNT		21	133	154
		13.6	86.4	18.2
		18.4	18.2	
		2.5	15.7	
3. SOME IMPORTNT		17	217	234
		7.3	92.7	27.7
		14.9	29.7	
		2.0	25.7	
4. GREAT IMPORTNT		21	236	257
		8.2	91.8	30.4
		18.4	32.3	
		2.5	27.9	
COLUMN TOTAL		114	731	845
		13.5	86.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-42

Crosstabulation of
Importance of Access in Hunting (VAR16)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR16				
1. NOT IMPORTNT		38	119	157
		24.2	75.8	40.9
		54.3	37.9	
		9.9	31.0	
2. LITTLE IMPORTNT		11	51	62
		17.7	82.3	16.1
		15.7	16.2	
		2.9	13.3	
3. SOME IMPORTNT		7	68	75
		9.3	90.7	19.5
		10.0	21.7	
		1.8	17.7	
4. GREAT IMPORTNT		14	76	90
		15.6	84.4	23.4
		20.0	24.2	
		3.6	19.8	
COLUMN TOTAL		70	314	384
		18.2	81.8	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-43

Crosstabulation of
Importance of Access in Camping (VAR17)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR17				
1. NOT IMPORTNT		57	176	233
		24.5	75.5	18.1
		34.5	15.7	
		4.4	13.7	
2. LITTLE IMPORTNT		26	159	185
		14.1	85.9	14.4
		15.8	14.2	
		2.0	12.4	
3. SOME IMPORTNT		35	364	399
		8.8	91.2	31.0
		21.2	32.4	
		2.7	28.3	
4. GREAT IMPORTNT		47	423	470
		10.0	90.0	36.5
		28.5	37.7	
		3.7	32.9	
COLUMN TOTAL		165	1122	1287
		12.8	87.2	100.0

Source: Survey conducted by the Author.

APPENDIX TABLE A-44

Crosstabulation of
Importance of Access in Boating-Skiing-Swimming (VAR18)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR18				
NOT IMPORTNT	1.	34 / 20.6 / 33.7 / 4.1	131 / 79.4 / 17.8 / 15.6	165 / 19.7
LITTLE IMPORTNT	2.	14 / 10.1 / 13.9 / 1.7	124 / 89.9 / 16.8 / 14.8	138 / 16.5
SOME IMPORTNT	3.	22 / 8.2 / 21.8 / 2.6	245 / 91.8 / 33.2 / 29.2	267 / 31.9
GREAT IMPORTNT	4.	31 / 11.6 / 30.7 / 3.7	237 / 88.4 / 32.2 / 28.3	268 / 32.0
COLUMN TOTAL		101 / 12.1	737 / 87.9	838 / 100.0

Source: Survey conducted by the Authors.

APPENDIX VI

SELECTED CROSSTABULATIONS CONCERNING IMPORTANCE OF VARIOUS FACTORS IN ROUTE CHOICE

APPENDIX TABLE A-45

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of Interstate in Route Choice (VAR08)

		VAR08		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
DAYEND				
WEEKEND	1.	459 / 56.5 / 48.7 / 27.6	353 / 43.5 / 49.0 / 21.2	812 / 48.8
WEEKDAY	2.	483 / 56.8 / 51.3 / 29.0	368 / 43.2 / 51.0 / 22.1	851 / 51.2
	COLUMN TOTAL	942 / 56.6	721 / 43.4	1663 / 100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-46

Crosstabulation of
Importance of Access in Visiting Historical Sites (VAR19)
by Importance of Area in Site Choice (VAR07)

		VAR07		
	COUNT / ROW PCT / COL PCT / TOT PCT	NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
VAR19				
1. NOT IMPORTNT		26	73	99
		26.3	73.7	15.6
		36.1	13.0	
		4.1	11.5	
2. LITTLE IMPORTNT		8	97	105
		7.6	92.4	16.5
		11.1	17.2	
		1.3	15.3	
3. SOME IMPORTNT		17	195	212
		8.0	92.0	33.4
		23.6	34.6	
		2.7	30.7	
4. GREAT IMPORTNT		21	198	219
		9.6	90.4	34.5
		29.2	35.2	
		3.3	31.2	
COLUMN TOTAL		72	563	635
		11.3	88.7	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-47

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of All-Weather Road in Route Choice (VAR09)

DAYEND		VAR09 NOT IMPORTNT (1.)	VAR09 IMPORTNT (2.)	ROW TOTAL
WEEKEND (1.)	COUNT	74	753	827
	ROW PCT	8.9	91.1	49.0
	COL PCT	43.5	49.6	
	TOT PCT	4.4	44.6	
WEEKDAY (2.)	COUNT	96	764	860
	ROW PCT	11.2	88.8	51.0
	COL PCT	56.5	50.4	
	TOT PCT	5.7	45.3	
COLUMN TOTAL		170	1517	1687
		10.1	89.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-48

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of Scenic Highway in Route Choice (VAR10)

DAYEND	VAR10	NOT IMPORTNT (1.)	IMPORTNT (2.)	ROW TOTAL
1. WEEKEND	COUNT	133	691	824
	ROW PCT	16.1	83.9	49.0
	COL PCT	42.8	50.4	
	TOT PCT	7.9	41.1	
2. WEEKDAY	COUNT	178	680	858
	ROW PCT	20.7	79.3	51.0
	COL PCT	57.2	49.6	
	TOT PCT	10.6	40.4	
COLUMN TOTAL		311	1371	1682
		18.5	81.5	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-49

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of Directness in Route Choice (VAR11)

DAYEND	COUNT / ROW PCT / COL PCT / TOT PCT	VAR11 NOT IMPORTNT 1.	VAR11 IMPORTNT 2.	ROW TOTAL
WEEKEND	1.	212	598	810
		26.2	73.8	48.7
		44.8	50.3	
		12.7	36.0	
WEEKDAY	2.	261	592	853
		30.6	69.4	51.3
		55.2	49.7	
		15.7	35.6	
	COLUMN TOTAL	473	1190	1663
		28.4	71.6	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-50

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Importance of Services in Route Choice (VAR12)

DAYEND		VAR12 NOT IMPORTNT 1.	IMPORTNT 2.	ROW TOTAL
	COUNT			
	ROW PCT	NOT IMPORTNT	IMPORTNT	ROW TOTAL
	COL PCT			
	TOT PCT	1.	2.	
1. WEEKEND		234	584	818
		28.6	71.4	49.0
		44.2	51.2	
		14.0	35.0	
2. WEEKDAY		295	557	852
		34.6	65.4	51.0
		55.8	48.8	
		17.7	33.4	
COLUMN TOTAL		529	1141	1670
		31.7	68.3	100.0

Source: Survey conducted by the Authors.

APPENDIX VII

SELECTED CROSSTABULATIONS CONCERNING TYPE OF OUTDOOR RECREATION AREA

APPENDIX TABLE A-51

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Type of Outdoor Recreation Area (TYPE)

DAYEND	COUNT / ROW PCT / COL PCT / TOT PCT	TYPE 1. STATE PARK	2. NATIONAL PARK	3. NAT'L FO REST	4. CORPS OF ENG'R	5. NAT'L WI LDLIFE	6. PRIMITIV E CAMP	ROW TOTAL
1. WEEKEND	COUNT	371	35	188	169	40	69	872
	ROW PCT	42.5	4.0	21.6	19.4	4.6	7.9	49.8
	COL PCT	55.6	15.3	68.9	54.0	32.3	47.9	
	TOT PCT	21.2	2.0	10.7	9.7	2.3	3.9	
2. WEEKDAY	COUNT	296	194	85	144	84	75	878
	ROW PCT	33.7	22.1	9.7	16.4	9.6	8.5	50.2
	COL PCT	44.4	84.7	31.1	46.0	67.7	52.1	
	TOT PCT	16.9	11.1	4.9	8.2	4.8	4.3	
COLUMN TOTAL		667	229	273	313	124	144	1750
		38.1	13.1	15.6	17.9	7.1	8.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-52

Crosstabulation of
Preference for Access to Interstate (VAR01)
by Type of Outdoor Recreation Area (TYPE)

		TYPE						
	COUNT / ROW PCT / COL PCT / TOT PCT	STATE PARK 1.	NATIONAL PARK 2.	NAT'L FOREST 3.	CORPS OF ENG'R 4.	NAT'L WILDLIFE 5.	PRIMITIVE CAMP 6.	ROW TOTAL
VAR01								
1. DIRECT		130	51	34	53	1	37	306
		42.5	16.7	11.1	17.3	0.3	12.1	17.6
		19.6	22.3	12.5	16.9	0.8	26.1	
		7.5	2.9	2.0	3.0	0.1	2.1	
2. CONVEN'T		296	104	109	125	38	51	723
		40.9	14.4	15.1	17.3	5.3	7.1	41.5
		44.6	45.4	39.9	39.9	30.9	35.9	
		17.0	6.0	6.3	7.2	2.2	2.9	
3. REMOTE		77	25	48	36	26	16	228
		33.8	11.0	21.1	15.8	11.4	7.0	13.1
		11.6	10.9	17.6	11.5	21.1	11.3	
		4.4	1.4	2.8	2.1	1.5	0.9	
4. NO ACCESS		160	49	82	99	58	38	486
		32.9	10.1	16.9	20.4	11.9	7.8	27.9
		24.1	21.4	30.0	31.6	47.2	26.8	
		9.2	2.8	4.7	5.7	3.3	2.2	
COLUMN TOTAL		663	229	273	313	123	142	1743
		38.0	13.1	15.7	18.0	7.1	8.1	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-53

Crosstabulation of
Distance Will Travel from Interstate (VAR02)
by Type of Outdoor Recreation Area (TYPE)

VAR02		TYPE 1.	2.	3.	4.	5.	6.	ROW TOTAL
1.	COUNT	74	31	14	14	1	19	153
0-10	MILES	48.4	20.3	9.2	9.2	0.7	12.4	8.8
	ROW PCT	11.2	13.7	5.2	4.5	0.8	13.8	
	COL PCT	4.3	1.8	0.8	0.8	0.1	1.1	
	TOT PCT							
2.	COUNT	176	64	58	63	14	38	413
11-25	MILES	42.6	15.5	14.0	15.3	3.4	9.2	23.9
	ROW PCT	26.7	28.2	21.4	20.3	11.4	27.5	
	COL PCT	10.2	3.7	3.4	3.6	0.8	2.2	
	TOT PCT							
3.	COUNT	211	64	86	94	33	39	527
26-50	MILES	40.0	12.1	16.3	17.8	6.3	7.4	30.5
	ROW PCT	32.0	28.2	31.7	30.3	26.8	28.3	
	COL PCT	12.2	3.7	5.0	5.4	1.9	2.3	
	TOT PCT							
4.	COUNT	110	25	50	54	27	25	291
51-100	MILES	37.8	8.6	17.2	18.6	9.3	8.6	16.8
	ROW PCT	16.7	11.0	18.5	17.4	22.0	18.1	
	COL PCT	6.4	1.4	2.9	3.1	1.6	1.4	
	TOT PCT							
5.	COUNT	89	43	63	85	48	17	345
OVER 100MILES		25.8	12.5	18.3	24.6	13.9	4.9	20.0
	ROW PCT	13.5	18.9	23.2	27.4	39.0	12.3	
	COL PCT	5.1	2.5	3.6	4.9	2.8	1.0	
	TOT PCT							
	COLUMN TOTAL	660	227	271	310	123	138	1729
		38.2	13.1	15.7	17.9	7.1	8.0	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-54

Crosstabulation of
Arkansas Needs More Interstate Highways (VAR03)
by Type of Outdoor Recreation Area (TYPE)

VAR03		TYPE COUNT / ROW PCT / COL PCT / TOT PCT	1. STATE PARK	2. NATIONAL PARK	3. NAT'L FO REST	4. COPPS OF ENG'R	5. NAT'L WI LDLIFE	6. PRIMITIV E CAMP	ROW TOTAL
1.	STRONG DISAGREE		68	23	53	40	40	29	253
			26.9	9.1	20.9	15.8	15.8	11.5	14.9
			10.5	10.6	19.9	13.0	33.9	20.6	
			4.0	1.4	3.1	2.4	2.4	1.7	
2.	DISAGREE		253	97	96	133	51	52	682
			37.1	14.2	14.1	19.5	7.5	7.6	40.2
			39.2	44.9	36.0	43.2	43.2	36.9	
			14.9	5.7	5.7	7.8	3.0	3.1	
3.	AGREE		267	80	91	108	20	41	607
			44.0	13.2	15.0	17.8	3.3	6.8	35.8
			41.3	37.0	34.1	35.1	16.9	29.1	
			15.7	4.7	5.4	6.4	1.2	2.4	
4.	STRONG AGREE		58	16	27	27	7	19	154
			37.7	10.4	17.5	17.5	4.5	12.3	9.1
			9.0	7.4	10.1	8.8	5.9	13.5	
			3.4	0.9	1.6	1.6	0.4	1.1	
	COLUMN TOTAL		646	216	267	308	118	141	1696
			38.1	12.7	15.7	18.2	7.0	8.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-55

Crosstabulation of
Arkansas Needs Better Connecting Roads (VAR04)
by Type of Outdoor Recreation Area (TYPE)

VAR04	COUNT / ROW PCT / COL PCT / TOT PCT	TYPE 1. STATE PARK	2. NATIONAL PARK	3. NAT'L FO REST	4. CORPS OF ENG'R	5. NAT'L WI LDLIFE	6. PRIMITIV E CAMP	ROW TOTAL
1. STRONG DISAGREE		26	6	28	23	19	9	111
		23.4	5.4	25.2	20.7	17.1	8.1	6.5
		4.0	2.8	10.4	7.3	15.8	6.4	
		1.5	0.4	1.6	1.3	1.1	0.5	
2. DISAGREE		190	63	50	100	38	44	485
		39.2	13.0	10.3	20.6	7.8	9.1	28.4
		29.3	29.0	18.6	31.9	31.7	31.4	
		11.1	3.7	2.9	5.9	2.2	2.6	
3. AGREE		327	123	135	139	46	63	833
		39.3	14.8	16.2	16.7	5.5	7.6	48.8
		50.4	56.7	50.2	44.4	38.3	45.0	
		19.1	7.2	7.9	8.1	2.7	3.7	
4. STRONG AGREE		106	25	56	51	17	24	279
		38.0	9.0	20.1	18.3	6.1	8.6	16.3
		16.3	11.5	20.8	16.3	14.2	17.1	
		6.2	1.5	3.3	3.0	1.0	1.4	
COLUMN TOTAL		649	217	269	313	120	140	1708
		38.0	12.7	15.7	18.3	7.0	8.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-56

Crosstabulation of
Importance of Access in Site Choice (VAR06)
by Type of Outdoor Recreation Area (TYPE)

VAR06	TYPE COUNT ROW PCT COL PCT TOT PCT	1. STATE PARK	2. NATIONAL PARK	3. NAT'L REST	4. CORPS OF ENG'R	5. NAT'L WILDLIFE	6. PRIMITIVE CAMP	ROW TOTAL
1. NOT IMPORTNT		126	40	79	79	57	38	419
		30.1	9.5	18.9	18.9	13.6	9.1	24.7
		19.5	17.9	30.4	25.6	47.1	27.1	
		7.4	2.4	4.7	4.7	3.4	2.2	
2. LITTLE IMPORTNT		200	70	76	102	34	37	519
		38.5	13.5	14.6	19.7	6.6	7.1	30.6
		31.0	31.3	29.2	33.1	28.1	26.4	
		11.8	4.1	4.5	6.0	2.0	2.2	
3. SOME IMPORTNT		253	88	87	102	26	46	602
		42.0	14.6	14.5	16.9	4.3	7.6	35.5
		39.2	39.3	33.5	33.1	21.5	32.9	
		14.9	5.2	5.1	6.0	1.5	2.7	
4. GREAT IMPORTNT		66	26	18	25	4	19	158
		41.8	16.5	11.4	15.8	2.5	12.0	9.3
		10.2	11.6	6.9	8.1	3.3	13.6	
		3.9	1.5	1.1	1.5	0.2	1.1	
COLUMN TOTAL		645	224	260	308	121	140	1698
		38.0	13.2	15.3	18.1	7.1	8.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-57

Crosstabulation of
Importance of Area in Site Choice (VAR07)
by Type of Outdoor Recreation Area (TYPE)

VAR07	COUNT / ROW PCT / COL PCT / TOT PCT	TYPE 1. STATE PARK	2. NATIONAL PARK	3. NAT'L FO REST	4. CORPS OF ENG'R	5. NAT'L WI LDLIFE	6. PRIMITIV E CAMP	ROW TOTAL
1. NOT	IMPORTNT	27	11	12	18	27	12	107
		25.2	10.3	11.2	16.8	25.2	11.2	6.3
		4.2	4.9	4.5	5.9	22.9	9.3	
		1.6	0.7	0.7	1.1	1.6	0.7	
2. LITTLE	IMPORTNT	43	17	16	22	9	12	119
		36.1	14.3	13.4	18.5	7.6	10.1	7.1
		6.7	7.5	6.0	7.2	7.6	9.3	
		2.5	1.0	0.9	1.3	0.5	0.7	
3. SOME	IMPORTNT	159	58	57	62	21	33	390
		40.8	14.9	14.6	15.9	5.4	8.5	23.1
		24.9	25.7	21.3	20.2	17.8	25.6	
		9.4	3.4	3.4	3.7	1.2	2.0	
4. GREAT	IMPORTNT	410	140	183	205	61	72	1071
		38.3	13.1	17.1	19.1	5.7	6.7	63.5
		64.2	61.9	68.3	66.8	51.7	55.8	
		24.3	8.3	10.8	12.2	3.6	4.3	
	COLUMN TOTAL	639	226	268	307	118	129	1687
		37.9	13.4	15.9	18.2	7.0	7.6	100.0

Source: Survey conducted by the Authors.

APPENDIX VIII

SELECTED CROSSTABULATIONS CONCERNING NEARNESS TO INTERSTATE

APPENDIX TABLE A-58

Crosstabulation of
Type of Outdoor Recreation Area (TYPE)
by Nearness to Interstate (CLOSE)

TYPE		CLOSE 1. INEAR	CLOSE 2. FAR	ROW TOTAL
1. STATE PARK	COUNT	250	417	667
	ROW PCT	37.5	62.5	38.1
	COL PCT	38.0	38.2	
	TOT PCT	14.3	23.8	
2. NATIONAL PARK	COUNT	153	76	229
	ROW PCT	66.8	33.2	13.1
	COL PCT	23.3	7.0	
	TOT PCT	8.7	4.3	
3. NAT'L FOREST	COUNT	32	241	273
	ROW PCT	11.7	88.3	15.6
	COL PCT	4.9	22.1	
	TOT PCT	1.8	13.8	
4. CORPS OF ENG'R	COUNT	104	209	313
	ROW PCT	33.2	66.8	17.9
	COL PCT	15.8	19.1	
	TOT PCT	5.9	11.9	
5. NAT'L WILDLIFE	COUNT	0	124	124
	ROW PCT	0.0	100.0	7.1
	COL PCT	0.0	11.4	
	TOT PCT	0.0	7.1	
6. PRIMITIVE CAMP	COUNT	119	25	144
	ROW PCT	82.6	17.4	8.2
	COL PCT	18.1	2.3	
	TOT PCT	6.8	1.4	
COLUMN TOTAL		658	1092	1750
		37.6	62.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-59

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
DAYEND				
WEEKEND	1.	189 / 21.7 / 28.7 / 10.8	683 / 78.3 / 62.5 / 39.0	872 / 49.8
WEEKDAY	2.	469 / 53.4 / 71.3 / 26.8	409 / 46.6 / 37.5 / 23.4	878 / 50.2
	COLUMN TOTAL	658 / 37.6	1092 / 62.4	1750 / 100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-60

Crosstabulation of
Preference for Access to Interstate (VAR01)
by Nearness to Interstate (CLOSE)

VAR01	CLOSE: NEAR (1.)	FAR (2.)	ROW TOTAL
1. DIRECT	176	130	306
	57.5	42.5	17.6
	26.8	12.0	
	10.1	7.5	
2. CONVEN'T	298	425	723
	41.2	58.8	41.5
	45.4	39.1	
	17.1	24.4	
3. REMOTE	57	171	228
	25.0	75.0	13.1
	8.7	15.7	
	3.3	9.8	
4. NO ACCESS	125	361	486
	25.7	74.3	27.9
	19.1	33.2	
	7.2	20.7	
COLUMN TOTAL	656	1087	1743
	37.6	62.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-61

Crosstabulation of
Arkansas Needs More Interstate Highways (VAR03)
by Nearness to Interstate (CLOSE)

VAR03		CLOSE NEAR 1.	FAR 2.	ROW TOTAL
1. STRONG	DISAGREE	77	176	253
		30.4	69.6	14.9
		12.2	16.5	
		4.5	10.4	
2. DISAGREE		279	403	682
		40.9	59.1	40.2
		44.4	37.8	
		16.5	23.8	
3. AGREE		223	384	607
		36.7	63.3	35.8
		35.5	36.0	
		13.1	22.6	
4. STRONG	AGREE	50	104	154
		32.5	67.5	9.1
		7.9	9.7	
		2.9	6.1	
COLUMN TOTAL		629	1067	1696
		37.1	62.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-62

Crosstabulation of
Arkansas Needs Better Connecting Roads (VAR04)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
VAR04				
1. STRONG DISAGREE		25	86	111
		22.5	77.5	6.5
		3.9	8.0	
		1.5	5.0	
2. DISAGREE		197	288	485
		40.6	59.4	28.4
		31.0	26.8	
		11.5	16.9	
3. AGREE		320	513	833
		38.4	61.6	48.8
		50.4	47.8	
		18.7	30.0	
4. STRONG AGREE		93	186	279
		33.3	66.7	16.3
		14.6	17.3	
		5.4	10.9	
COLUMN TOTAL		635	1073	1708
		37.2	62.8	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-63

Crosstabulation of
This Area Needs More Traveler Services (VAR05)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
VAR05				
1. STRONG DISAGREE		105	182	287
		36.6	63.4	16.9
		16.7	17.1	
		6.2	10.7	
2. DISAGREE		300	426	726
		41.3	58.7	42.9
		47.8	40.0	
		17.7	25.1	
3. AGREE		175	315	490
		35.7	64.3	28.9
		27.9	29.5	
		10.3	18.6	
4. STRONG AGREE		48	143	191
		25.1	74.9	11.3
		7.6	13.4	
		2.8	8.4	
COLUMN TOTAL		628	1066	1694
		37.1	62.9	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-64

Crosstabulation of
Importance of Access in Site Choice (VAR06)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
VAR06				
1. NOT IMPORTNT		114	305	419
		27.2	72.8	24.7
		17.9	28.8	
		6.7	18.0	
2. LITTLE IMPORTNT		193	326	519
		37.2	62.8	30.6
		30.3	30.8	
		11.4	19.2	
3. SOME IMPORTNT		259	343	602
		43.0	57.0	35.5
		40.6	32.4	
		15.3	20.2	
4. GREAT IMPORTNT		72	86	158
		45.6	54.4	9.3
		11.3	8.1	
		4.2	5.1	
COLUMN TOTAL		638	1060	1698
		37.6	62.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-65

Crosstabulation of
Importance of Area in Site Choice (VAR07)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
VAR07				
1. NOT IMPORTNT		33	74	107
		30.8	69.2	6.3
		5.2	7.0	
		2.0	4.4	
2. LITTLE IMPORTNT		46	73	119
		38.7	61.3	7.1
		7.2	6.9	
		2.7	4.3	
3. SOME IMPORTNT		162	228	390
		41.5	58.5	23.1
		25.5	21.7	
		9.6	13.5	
4. GREAT IMPORTNT		395	676	1071
		36.9	63.1	63.5
		62.1	64.3	
		23.4	40.1	
COLUMN TOTAL		636	1051	1687
		37.7	62.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-66

Crosstabulation of
Importance of Interstate in Route Choice (VAR08)
by Nearness to Interstate (CLOSE)

VAR08		CLOSE NEAR 1.	FAR 2.	ROW TOTAL
1. NOT IMPORTNT	COUNT	109	313	422
	ROW PCT	25.8	74.2	25.4
	COL PCT	17.4	30.2	
	TOT PCT	6.6	18.8	
2. LITTLE IMPORTNT	COUNT	201	319	520
	ROW PCT	38.7	61.3	31.3
	COL PCT	32.2	30.7	
	TOT PCT	12.1	19.2	
3. SOME IMPORTNT	COUNT	230	310	540
	ROW PCT	42.6	57.4	32.5
	COL PCT	36.8	29.9	
	TOT PCT	13.8	18.6	
4. GREAT IMPORTNT	COUNT	85	96	181
	ROW PCT	47.0	53.0	10.9
	COL PCT	13.6	9.2	
	TOT PCT	5.1	5.8	
COLUMN TOTAL		625	1038	1663
		37.6	62.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-67

Crosstabulation of
Importance of All-Weather Road in Route Choice (VAR09)
by Nearness to Interstate (CLOSE)

VAR09		CLOSE NEAR (1.)	FAR (2.)	ROW TOTAL
	COUNT			
	ROW PCT			
	COL PCT			
	TOT PCT			
1. NOT	IMPORTNT	26	36	62
		41.9	58.1	3.7
		4.1	3.4	
		1.5	2.1	
2. LITTLE	IMPORTNT	42	66	108
		38.9	61.1	6.4
		6.6	6.3	
		2.5	3.9	
3. SOME	IMPORTNT	212	375	587
		36.1	63.9	34.8
		33.3	35.7	
		12.6	22.2	
4. GREAT	IMPORTNT	356	574	930
		38.3	61.7	55.1
		56.0	54.6	
		21.1	34.0	
	COLUMN TOTAL	636	1051	1687
		37.7	62.3	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-68

Crosstabulation of
Importance of Scenic Highway in Route Choice (VAR10)
by Nearness to Interstate (CLOSE)

VAR10	CLOSE	NEAR 1.	FAR 2.	ROW TOTAL
1. NOT IMPORTNT	COUNT	37	59	96
	ROW PCT	38.5	61.5	5.7
	COL PCT	5.9	5.6	
	TOT PCT	2.2	3.5	
2. LITTLE IMPORTNT	COUNT	93	122	215
	ROW PCT	43.3	56.7	12.8
	COL PCT	14.7	11.6	
	TOT PCT	5.5	7.3	
3. SOME IMPORTNT	COUNT	252	396	648
	ROW PCT	38.9	61.1	38.5
	COL PCT	39.9	37.7	
	TOT PCT	15.0	23.5	
4. GREAT IMPORTNT	COUNT	250	473	723
	ROW PCT	34.6	65.4	43.0
	COL PCT	39.6	45.0	
	TOT PCT	14.9	28.1	
COLUMN TOTAL		632	1050	1682
		37.6	62.4	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-69

Crosstabulation of
Importance of Directness in Route Choice (VAR11)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.I	FAR 2.I	ROW TOTAL
VAR11				
1. NOT IMPORTNT		36	88	124
		29.0	71.0	7.5
		5.7	8.5	
		2.2	5.3	
2. LITTLE IMPORTNT		130	219	349
		37.2	62.8	21.0
		20.7	21.2	
		7.8	13.2	
3. SOME IMPORTNT		261	424	685
		38.1	61.9	41.2
		41.5	41.0	
		15.7	25.5	
4. GREAT IMPORTNT		202	303	505
		40.0	60.0	30.4
		32.1	29.3	
		12.1	18.2	
COLUMN TOTAL		629	1034	1663
		37.8	62.2	100.0

Source: Survey conducted by the Authors.

APPENDIX IX

SELECTED CROSSTABULATIONS CONCERNING AGREEMENT WITH THE STATEMENT THAT THIS AREA NEEDS MORE TRAVELER SERVICES

APPENDIX TABLE A-70

Crosstabulation of
Importance of Services in Route Choice (VAR12)
by Nearness to Interstate (CLOSE)

		CLOSE		
	COUNT / ROW PCT / COL PCT / TOT PCT	NEAR 1.	FAR 2.	ROW TOTAL
VAR12				
1. NOT IMPORTNT		70	126	196
		35.7	64.3	11.7
		11.1	12.1	
		4.2	7.5	
2. LITTLE IMPORTNT		121	212	333
		36.3	63.7	19.9
		19.2	20.4	
		7.2	12.7	
3. SOME IMPORTNT		245	421	666
		36.8	63.2	39.9
		38.8	40.5	
		14.7	25.2	
4. GREAT IMPORTNT		195	280	475
		41.1	58.9	28.4
		30.9	26.9	
		11.7	16.8	
COLUMN TOTAL		631	1039	1670
		37.8	62.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-71

Crosstabulation of
Type of Outdoor Recreation Area (TYPE)
by This Area Needs More Traveler Services (VAR05)

TYPE	VAR05 COUNT / ROW PCT / COL PCT / TOT PCT	1. DISAGREE	2. AGREE	ROW TOTAL
1. STATE PARK		364	281	645
		56.4	43.6	38.1
		35.9	41.3	
		21.5	16.6	
2. NATIONAL PARK		139	76	215
		64.7	35.3	12.7
		13.7	11.2	
		8.2	4.5	
3. NAT'L FOREST		135	133	268
		50.4	49.6	15.8
		13.3	19.5	
		8.0	7.9	
4. CORPS OF ENG'R		202	106	308
		65.6	34.4	18.2
		19.9	15.6	
		11.9	6.3	
5. NAT'L WILDLIFE		81	38	119
		68.1	31.9	7.0
		8.0	5.6	
		4.8	2.2	
6. PRIMITIVE CAMP		92	47	139
		66.2	33.8	8.2
		9.1	6.9	
		5.4	2.8	
COLUMN TOTAL		1013	681	1694
		59.8	40.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-72

Crosstabulation of
Weekday or Weekend Trip (DAYEND)
by This Area Needs More Traveler Services (VAR05)

DAYEND		VAR05 DISAGREE 1.	VAR05 AGREE 2.	ROW TOTAL
1. WEEKEND	COUNT	474	366	840
	ROW PCT	56.4	43.6	49.6
	COL PCT	46.8	53.7	
	TOT PCT	28.0	21.6	
2. WEEKDAY	COUNT	539	315	854
	ROW PCT	63.1	36.9	50.4
	COL PCT	53.2	46.3	
	TOT PCT	31.8	18.6	
COLUMN TOTAL		1013	681	1694
		59.8	40.2	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-73

Crosstabulation of
Importance of Access in Site Choice (VAR06)
by This Area Needs More Traveler Services (VAR05)

VAR06		VAR05 DISAGREE (1.)	VAR05 AGREE (2.)	ROW TOTAL
1. NOT IMPORTNT	COUNT	330	84	414
	ROW PCT	79.7	20.3	25.0
	COL PCT	33.0	12.7	
	TOT PCT	19.9	5.1	
2. LITTLE IMPORTNT	COUNT	327	186	513
	ROW PCT	63.7	36.3	30.9
	COL PCT	32.7	28.2	
	TOT PCT	19.7	11.2	
3. SOME IMPORTNT	COUNT	292	292	584
	ROW PCT	50.0	50.0	35.2
	COL PCT	29.2	44.2	
	TOT PCT	17.6	17.6	
4. GREAT IMPORTNT	COUNT	50	98	148
	ROW PCT	33.8	66.2	8.9
	COL PCT	5.0	14.8	
	TOT PCT	3.0	5.9	
COLUMN TOTAL		999	660	1659
		60.2	39.8	100.0

Source: Survey conducted by the Authors.

APPENDIX TABLE A-74

Crosstabulation of
Importance of Area in Site Choice (VAR07)
by This Area Needs More Traveler Services (VAR05)

		VAR05		
	COUNT / ROW PCT / COL PCT / TOT PCT	1. DISAGREE	2. AGREE	ROW TOTAL
VAR07				
1. NOT IMPORTNT		83	22	105
		79.0	21.0	6.4
		8.4	3.4	
		5.0	1.3	
2. LITTLE IMPORTNT		73	45	118
		61.9	38.1	7.2
		7.4	6.9	
		4.4	2.7	
3. SOME IMPORTNT		196	187	383
		51.2	48.8	23.3
		19.8	28.5	
		11.9	11.4	
4. GREAT IMPORTNT		637	402	1039
		61.3	38.7	63.2
		64.4	61.3	
		38.7	24.4	
COLUMN TOTAL		989	656	1645
		60.1	39.9	100.0

Source: Survey conducted by the Authors.

APPENDIX X

FOOTNOTES

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