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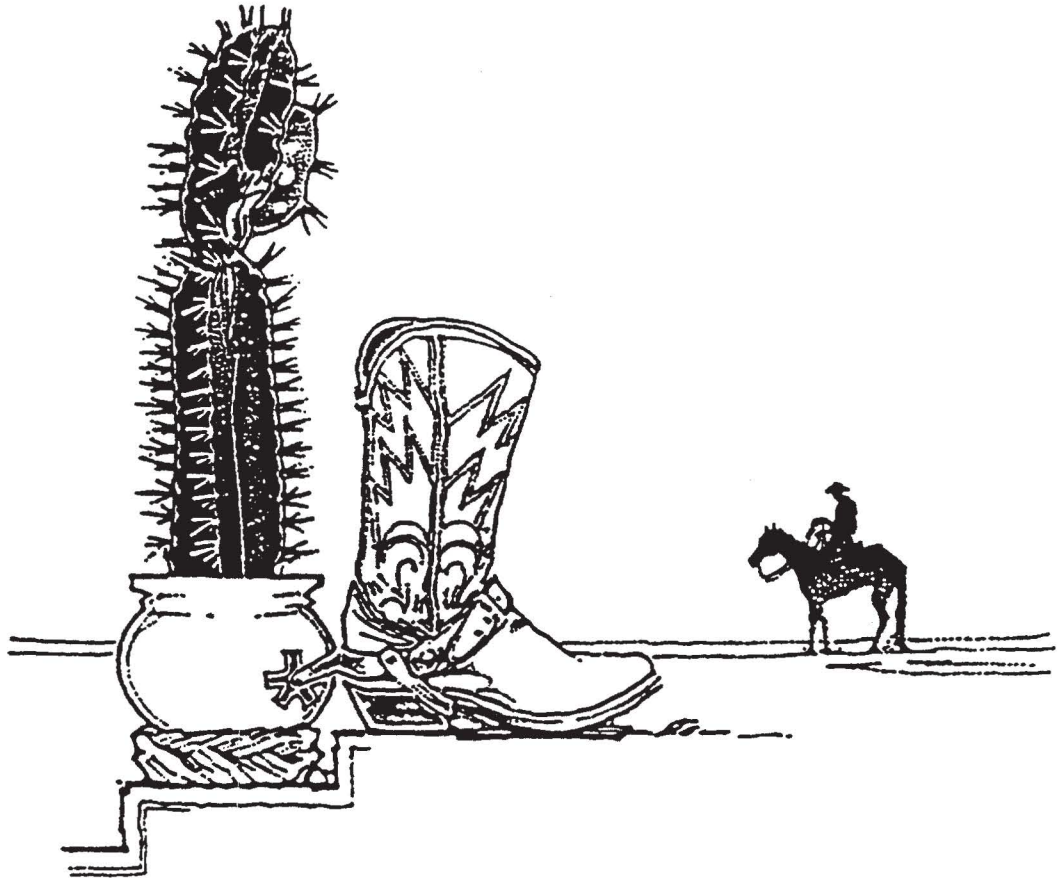
A Market-Oriented Analysis of Visitors to the Lyndon B. Johnson National and State Historical Parks

Technical Report No. 3



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A MARKET ORIENTED ANALYSIS OF VISITORS TO THE LYNDON B. JOHNSON NATIONAL AND STATE HISTORICAL PARKS

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PREFACE

The National Park Service (NPS) has learned over the years that the American public takes a strong interest in the nation's National Park System. When a General Management Plan was produced for Yosemite National Park in the early 1970's without inviting public comment, such a furor was created that the new plan was set aside and a citizen involvement process was instituted that actively sought input into NPS management plan development. When an NPS planning team was assigned in 1984 to develop an updated Interpretive Plan for Lyndon B. Johnson National and State Historical Parks, public input was an immediate high priority. Superintendents Harry O'Bryant and Donnie Schuch of the National and State Historical Parks, respectively, both felt that a scientific survey of current visitors preferences, likes and dislikes relative to the present interpretive program would be the most valuable means of obtaining a clearly representative assessment of public opinion on the park offerings. The survey was also designed to seek public input on the development of future interpretive offerings in the parks.

The wisdom of this approach was born out by the enthusiastic support given this survey effort by visitors to the parks. Many visitors were honored to assist and were very forthcoming in stating their opinions on the degree of satisfaction with their visit to LBJ. As this report will clearly show, much valuable information has resulted from this survey relative to who the visitors are that come to LBJ, the seasonal variation within the visitor population, degree of visitor satisfaction with current park programs by segmentation group, and the future expectations for park programs.

This information has value to the manager and the planner in these times of budgetary austerity, because it can be used to make an informed decision on which programs to curtail or eliminate with the least impact on the visitor population should such an action be necessary. It is especially useful to the planner in developing future interpretive programs, because the results yield insight into public expectations for their visits to LBJ.

ACKNOWLEDGEMENTS

We especially would like to acknowledge the untiring assistance of the Lyndon B. Johnson National Historical Park staff and the Lyndon B. Johnson State Historical Park staff. Special credit should be given to Superintendent Harry O'Bryant, and to Mac Heebner, Chief of the Division of Interpretation, Protection and Resources Management at the Lyndon B. Johnson National Historical Park. Special credit is equally due to Superintendent Donnie Schuch, and to Assistant Superintendents Kenneth Jenschke and Hilmar Nebgen of the Lyndon B. Johnson State Historical Park.

Dr. Robert Newkirk, former Unit Leader of the Cooperative Park Studies Unit at Texas A&M University, deserves credit for his help in initiating this project.

The National Park Service Regional Office in Santa Fe, New Mexico also deserves special recognition for facilitating this study. A detailed review of the original study proposal by Dr. Milford Fletcher, Chief of the Division of Natural Resources Management for the Region, was particularly helpful.

We are grateful to Mr. Dave Dame, Chief of Interpretation, National Park Service, Washington Office, for his high interest, support, and help in providing financial assistance for this project. Mr. Jim Wood, Writer/Editor of the NPS Science Publications Office, must also be recognized for his assistance in publishing this technical report.

The clerical staff and others at Texas A&M University who tirelessly worked on various aspects of this study deserve special recognition.

We also owe thanks to a multitude of other people too numerous to mention who gave us support, help, and encouragement.

EXECUTIVE SUMMARY

The specific purpose of this study was to provide a thorough description and analysis of visitors to the LBJ State and National Historical Parks that will be useful for interpretive program planning. Data for this study were collected from a random sample of visitors interviewed on 121 days distributed over the four seasons of a year. Data were collected at the Stonewall, Texas park site by an interviewer using a two-part, self-administered questionnaire. A subsequent mail follow-up reminder was sent to selected visitors too busy to cooperate on site. Usable data were collected from a total of 1069 park visitors.

Comparison of sample data to census data for Texas and the nation as a whole revealed several differences. One of the most interesting differences was the proportion of park visitors in the 65 years and older age category. This was approximately twice as high as the state and national census proportions for fall, winter, and spring visitation. However, summer visitation to these parks by this age group was proportionately only half the size of state and national census proportions for 65 years and older. In contrast, visitors in the 17 years and under age category were underrepresented during fall, winter, and spring as compared to the census.

The majority of visitors for all seasons came to the parks in family groups. The majority in summer and spring were Texas residents, 69% and 56% respectively. However, Texas residents accounted for only 45% of visitation in fall and only 38% of visitation in winter.

Visitors preferences were assessed for present interpretive program components and other attractions at the parks by asking how important visitors perceived these things to be. Visitors were also asked to rate the present

performance of the parks in providing these programs and experience opportunities. Analysis of these visitor preferences (importance) and quality ratings (performance) revealed that the parks are generally doing an effective and efficient job of providing present park offerings and opportunities.

Visitor preferences were also assessed for a range of potential future program offerings and visitation opportunities. Bus (tram) access to the LBJ Ranch was the most preferred future program option for visitors in all seasons. This was consistent with a very high quality rating given the present bus tour of the LBJ ranch by visitors in all seasons. Most visitors also attached high importance to being allowed future access to most parts of the ranch house complex.

A market segmentation of all sampled visitors resulted in visitors being clustered into six mutually exclusive segments based upon four types of motives for visiting the parks. The four motives used as a basis for the market segmentation were: 1) social motives, 2) to learn about nature, 3) to learn about LBJ, and 4) to learn about the early German settlers of the area.

Visitors in one of the six market segments were highly motivated to visit the park for all four of these reasons. Because these visitors were more highly motivated to visit the parks in all respects, this segment was termed "Highly Interested and Social". Visitors in this segment constituted from 10% to 15% of all visitation for each season of the year. This market segment, and two other segments entitled "High General Interest" and "High LBJ Interest", are particularly worthy of targeting for future planning and management purposes.

The six visitor market segments were described and differentiated from one another in terms of socio-demographic characteristics, preferences, and

other variables. Results of this analysis should enable planners and managers to consider the size, characteristics, and preference differences among market segments when considering future program and policy actions. Certain market segments may be targeted and promotional efforts made to attract more of certain types of visitors to these parks, or at least to make more of them aware of these parks.

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INTRODUCTION

This study resulted from a list of research needs identified in 1983 for the Lyndon B. Johnson National Historical Park by the Cooperative Park Studies Unit at Texas A&M University. One of the needs on this list of desired projects was entitled "Visitor Interpretive Plan for the Texas White House." It formed the basis for this study. There was a need for data from visitors to this national historical park which could be used as input for updating the interpretive prospectus for the park. Present visitation to this national historical park enters via tram from the adjacent LBJ State Historical park. Thus both state and national park visitors were included in this study.

In the National Park Service "interpretive planning is a process that analyzes the need for programs, facilities, media, and personal services to communicate information to park visitors" (Paskowsky 1983). Input from and about visitors is often recognized as a desirable component of this planning process. If neglected the plan can be found wanting. Research studies have shown that visitors' perceptions may be much different than those of park personnel (Burch 1964; Silvy 1977).

Howard and Crompton (1980) point out that "selection of potential client groups is a major decision which the recreation and park manager has to make, because it influences and often directly determines all of the ensuing decisions which must be made concerning types of services of programs, location, timing, pricing, and communication." The process of dividing a clientele into client groups is known as market segmentation. Market segmentation was used as the basis for much of the analysis in this study.

The principal problem addressed by this research was to identify differences among visitors to the LBJ National and State historical parks which are meaningful for interpretive program planning. At the present time

the primary interpretive program offering to visitors at the LBJ National Historical Park is a one half hour guided bus tour of the LBJ ranch. Data collected in this study will be useful for planning additional interpretive offerings to be implemented when the ranch grounds, including the ranch house and associated buildings, become more directly available to the public.

PROJECT OBJECTIVES

1. To describe the present visitation market for LBJ National and State historical parks and to compare unique segments of that market in terms of visitors' different sociodemographic characteristics, motives for visiting the parks, information (interpretation) preferences, and types of interpretive programs attended.
2. To identify present visitors' information (interpretation) expectations and preferences for both the national and state historical parks at Stonewall, Texas, including the rooms in the ranch house which visitors would consider most important to see and learn about if they had the opportunity to do so.
3. To identify ways to make national and state park information (interpretation) efforts more efficient in terms of existing program elements which may not be desired or expected by visitors.
4. To explore the acceptability to visitors or specific visitor groups of alternative information (interpretive) programs or procedures for the ranch house and other facilities at the LBJ National and State historical parks.
5. To assess how effective visitors perceive the national and state parks to be in meeting visitors' present information (interpretation) expectations.

RESEARCH METHODS

After the managers of the LBJ State and National Parks made the decision to survey their visitors in order to collect data for the interpretive plan, key personnel from both parks met with the Principal Investigators. At this meeting the managers identified some general and specific areas of concern they wanted investigated. These later became the study objectives which were listed in the introduction.

THE SURVEY QUESTIONNAIRE

It was decided that a questionnaire administered to visitors on site would be the best method to obtain the information specified in the study objectives. It was further decided that one portion of the questionnaire should be administered to visitors when they arrived at the park, and another portion should be administered to them as they were leaving. This was so that visitor expectations, motives, and preferences could be assessed before they had seen the park, and so that visitor evaluations of present interpretive programs and desired additional programs could be assessed after they had seen the park.

Specific questions addressing the study objectives were developed and refined by pre-testing them with other professionals and park visitors. The questionnaire itself was formatted in booklet form, and printed on stiff paper known as coverstock because the questionnaire was to be administered on site and outdoors. This particular format and stiffness made it easy to handle, especially in windy weather. The size and consistency of the paper also made it suitable for mailing when people were not able to complete the questionnaire on site. A visually pleasing tan color was chosen for the survey form.

A two part self-administered questionnaire format was selected because of the nature of the questions (Appendices A and B for copy of questionnaire).

Most of the pages in the questionnaire consisted of lists of items, each of which had to be rated on a five point (Likert) response scale. The self-administered format was also judged best because the survey was conducted by only one person. With the self-administered questionnaire it was possible to have several sampled visitors filling out the questionnaire at the same time.

LOCATION OF SURVEY SITE

The survey site chosen was a place where all visitors must enter and/or leave the main park facilities. Controlled access is important in such a survey because only those who use the park should be interviewed. In this case, the location chosen was next to the main walkway that led from the parking lot to the visitor center.

The survey site location was also chosen with thought for the comfort of the visitor and the interviewer. Weather and climate was considered, as well as the angle of the sun. An interview table was located under a Spanish oak tree where respondents could sit and fill out their questionnaires. In the case of rain, the table was moved to a sheltered area near the entrance to the visitor center. Under extremely cold weather conditions in winter, the table was moved inside the main entrance to the visitor center.

SAMPLING VISITORS

The goal of sampling is to approach and interview a group of people who will be truly representative of the visitors to the park. In this case a sequential sample (every 20th person) with a random starting point was used. Each day the interviewer located the first two digits that were between 01 and

20 on a different dollar bill, and used that number as his starting point (One might also have used a random number table). After that he approached that number visitor and every 20th visitor thereafter. The interval 20 was chosen because it allowed for an adequate total sample size. It also resulted in selecting as many respondents as one lone interviewer could handle at this park considering the volume of visitation.

The interviewer used a hand held counter to keep count of all people passing while he was talking to someone else or engaged in some other activity. When an adult passed by carrying a child, the child was counted first and the adult next. If two people approach the sampling point at the same time, their feet were watched to see who first stepped over a predetermined point on the sidewalk. That person was always counted first.

Upon reaching every twentieth person in the sample count, that visitor was approached by the interviewer with a smile on his face and a questionnaire in hand. The interviewer then introduced himself, identified who he was working for, and told the potential respondent what he was doing by explaining the purpose of the survey. The interviewer also told the visitor how he/she was chosen (through a scientific sampling process), to let them know how important they were as a participant. The interviewer then explained the voluntary nature of participation in the survey, and explained what the visitor needed to do to participate. At that point the interviewer invited the visitor to participate. Those who accepted were asked to sit at the interview table and fill out the first half of the questionnaire. The interviewer then made sure that the selected visitor took a numbered sticker from the completed first half of the questionnaire, and reminded him to return to the table to fill out the second half of the questionnaire before leaving the park. He also asked the visitor to leave

his name and address on the page in the address book that had the same number as his questionnaire. This was to insure that if the visitor lost his interview number, his name could later be located in the address book, and he could at that time be given the properly numbered second half of the questionnaire to complete.

The objective was to have the visitor fill out both halves of the questionnaire on site. This was not possible in all situations, so modifications had to be made. If a visitor selected for the sample said he would like to participate but was in a hurry, he was offered a stamped mailing envelope along with a copy of either the second half, or both halves of the questionnaire. It was important to get a verbal commitment from these people to fill out the questionnaire off site so that they would be more likely to return it. In addition, it was important for the interviewer to get respondents' names and addresses in the address book, and to mark next to their name whether one or both halves of the questionnaire were given to the visitor along with a stamped pre-addressed mailer. Visitors who took the questionnaire and mailer were encouraged to send it back as soon as possible.

After each period of data collection (at the end of each season in this case) a mail follow-up was administered to visitors who had received either one half or both halves of the questionnaire, but had not returned them. Each eligible non-resident who had agreed to participate and had left their name and address was sent a personally signed letter. Along with the letter was a replacement copy of the questionnaire (with the proper number on it), and a postage paid pre-addressed envelope.

Data were collected from visitors to the LBJ State and National Historical Parks during approximately one third of the days in a one year

period beginning in July of 1984. Visitors were randomly sampled and interviewed on 121 days distributed over the four seasons. Table 1 shows that different numbers of days were sampled for different seasons, and the number of days per season differs depending upon how seasons are defined.

The definition of seasons commonly used by park administrators is a common sense definition corresponding to visitor use. This is the first definition shown in Table 1 and is used throughout subsequent parts of this report for comparing seasonal use data. The reason for sampling more days in some seasons than in others was to ensure a large enough sample of visitors from seasons of the year known to be low use periods. For example the fall visitor season was characterized by approximately half as many visitors per day in the year previous to this study as was the summer season. Therefore an attempt was made to sample on almost twice as many fall days as summer days in order to obtain samples of comparable size.

The second and third seasonal breakdowns in Table 1 are based upon the calendar definition of seasons and straight three month groupings, respectively. For the calendar seasons June 21 to September 20 is summer, September 21 to December 20 is fall, December 21 to March 19 is winter, and March 20 to June 21 is spring. For the three month groupings summer is defined as June, July, and August; fall is defined as September, October, and November; winter is defined as December, January, and February; and, spring is defined as March, April, and May.

Visitor sampling was begun during time periods comprising approximately half of the visitation day and beginning alternately in the morning and in the afternoon. The first visitor selected during each sampling period was chosen using a random number, and every twentieth person thereafter was included

TABLE 1
DAYS SAMPLED AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS
GROUPED BY DAY OF WEEK AND DIFFERENT SEASONAL DEFINITIONS

Visitor Season Definition	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Total Days
Summer (Memorial Day through Labor Day)	3	3	3	3	3	4	4	23
Fall (Labor Day + 1 through Nov. 30)	6	6	6	6	6	6	6	42
Winter (Dec. 1 through February 28)	4	4	4	4	4	4	4	28
Spring (March 1 to Memorial Day)	4	4	4	4	4	4	4	28
	17	17	17	17	17	18	18	121
Calendar Seasons								
Summer (June 21 - Sept. 20)	5	5	5	5	6	6	5	37
Fall (Sept. 21 - Dec. 20)	4	4	4	4	3	4	5	28
Winter (Dec. 21 - March 19)	4	4	4	4	4	4	4	28
Spring (March 20 - June 20)	4	4	4	4	4	4	4	28
	17	17	17	17	17	18	18	121
Three Month Groupings								
Summer (June, July, August)	3	3	3	3	3	3	3	21
Fall (September, October, November)	6	6	6	6	6	7	7	44
Winter (December, January, February)	4	4	4	4	4	4	4	28
Spring (March, April, May)	4	4	4	4	4	4	4	28
	17	17	17	17	17	18	18	121

in the sample. A total of 1581 visitors were selected in this manner, but 275 were not asked to participate in the interview for a variety of reasons (Table 2). Thirteen percent of the sample were children 12 years of age or younger and were judged too young to interview. One percent either did not understand the English or were handicapped in such a way as to make it impossible for them to completely fill out the questionnaire. Another three percent of the sample passed by the interviewer before he could request their participation. This normally happened during exceptionally busy periods, and it is assumed that the loss was random and did not materially affect the representativeness of the sample.

Table 2 shows that the effective sample for most of the analyses in this report is represented by the 1307 individuals asked to participate in the survey, i.e. the original 1581 visitors randomly selected minus those not asked to participate as explained above. Of these 1307 visitors approached who were defined as eligible to participate, 100 or 8 percent refused to do so. This would indicate a response rate of 92 percent. However, only 34% of the 1307 approached actually filled out both halves of the two part questionnaire on site. The rest who agreed to participate took either one or both halves of the questionnaire home with them and promised to mail it back to Texas A&M University. No data were received from 134 of these people, despite their promise to cooperate. Including these defacto refusals lowers the effective response rate to 82 percent of those contacted. Therefore, usable data were collected from a total of 1069 park visitors.

DESCRIPTIVE CHARACTERISTICS OF VISITORS

Data collected for purposes of describing the visitors sampled includes visitors' personal characteristics, visitor group characteristics, behavioral

TABLE 2
VISITOR SAMPLE STATISTICS
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

	Full Year		Summer		Fall		Winter		Spring	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
A. Visitors approached (Effective Sample)										
All or Half of Questionnaire Completed:										
Completed All At Park Site	34%	(447)	58%	(175)	32%	(103)	33%	(67)	21%	(102)
Completed All Off Site	26%	(336)	5%	(14)	26%	(85)	26%	(54)	39%	(183)
Completed Half On and Half Off Site	16%	(209)	14%	(43)	17%	(56)	22%	(44)	14%	(66)
Completed Only One Half Of Questionnaire	6%	(77)	6%	(18)	6%	(21)	7%	(14)	5%	(24)
Sub Total	82%	(1069)	83%	(250)	81%	(265)	88%	(179)	79%	(375)
Inappropriately Completed Questionnaire	0%	(4)	1%	(2)	0%	(1)	0%	(1)	0%	(0)
Refused to Participate	8%	(100)	13%	(40)	5%	(15)	6%	(12)	7%	(33)
Did Not Refuse But Failed to Respond	10%	(134)	3%	(9)	14%	(47)	6%	(12)	14%	(66)
Effective Sample Total	100%	(1307)	100%	(301)	100%	(328)	100%	(204)	100%	(474)
B. Total Sample Breakdown										
Effective Sample Above	83%	(1307)	75%	(301)	94%	(328)	86%	(204)	80%	(474)
Children 12 yrs. and Under	13%	(210)	20%	(82)	5%	(18)	12%	(28)	14%	(82)
Lost Adult Respondents	3%	(47)	3%	(11)	0%	(1)	1%	(4)	5%	(31)
Non-English Speaking	1%	(12)	1%	(6)	1%	(2)	0%	(0)	1%	(4)
Mentally and Physically Disabled	0%	(5)	1%	(3)	0%	(0)	1%	(2)	0%	(0)
Grand Total	100%	(1581)	100%	(403)	100%	(349)	100%	(238)	100%	(591)

characteristics of visitors, and U.S. geographical origins of visitors. Findings for each of these visitor characteristics properties is discussed below.

PERSONAL CHARACTERISTICS

Table 3 compares sample statistics to 1980 census statistics for four different personal characteristics of visitors: sex, age, education, and race/ethnicity.

VISITOR SEX DISTRIBUTION: The sex distribution of visitors was similar to population characteristics reported by the 1980 census for Texas and the United States as a whole. Slightly more than 50% of the visitors were males and slightly less than 50 % were females for three of the four seasonal samples. For the summer sample 50% were males and 50% were females. Sample percentages were based only upon those people from whom data were obtained, i.e. the effective sample. It is assumed that the proportion of males and females among the children 12 and under and others not part of the effective sample would not alter these statistics.

VISITOR AGE DISTRIBUTION: Sample statistics in Table 3 for visitor age reflect those visitors under 12 and not interviewed as well as data from those interviewed in the effective sample. The proportion of summer visitors in the 17 years and under category was approximately the same as the proportion in the state and national census data. For the other seasons substantially fewer visitors were in this age category, the lowest being 6% for fall visitors. The proportion of visitors in the 18 to 24 year old category is even less for all visitor seasons, somewhat less than one third of the state and national average reported by the 1980 census.

The proportion of visitors in the 35 to 44 year old category is approximately the same as census statistics for the fall, winter, and spring

TABLE 3
CHARACTERISTICS OF 1984-85 VISITORS SAMPLED AT
LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS
COMPARED TO 1980 CENSUS DATA FOR THE U.S. AND TEXAS

Visitor Characteristics	1980 U.S. Census	1980 Texas Census	Total Sample	Summer Sample	Fall Sample	Winter Sample	Spring Sample
Sex							
Males	49%	49%	46%	50%	44%	49%	43%
Females	51%	51%	54%	50%	56%	51%	57%
	100%	100%	100% (n=993)	100% (n=232)	100% (n=247)	100% (n=165)	100% (n=349)
Age							
17 yrs. and under	28%	29%	18%	29%	6%	18%	18%
18 - 24 yrs. old	13%	15%	4%	4%	4%	4%	3%
25 - 34 yrs. old	17%	17%	11%	12%	10%	12%	10%
35 - 44 yrs. old	11%	11%	13%	18%	13%	12%	11%
45 - 64 yrs. old	20%	18%	36%	33%	42%	34%	35%
65 yrs. and over	11%	10%	18%	4%	25%	20%	23%
	100%	100%	100% (n=1581)	100% (n=403)	100% (n=349)	100% (n=238)	100% (n=591)
Education							
Less than High School	9%	26%	14%	17%	11%	16%	13%
Completed High School (12-15yrs.)	72%	60%	54%	51%	58%	56%	52%
Completed College (16+ yrs.)	19%	14%	32%	32%	31%	28%	35%
	100%	100%	100% (n=1030)	100% (n=247)	100% (n=257)	100% (n=177)	100% (n=349)
Race/Ethnicity							
Anglos	80%	66%	89%	82%	91%	88%	91%
Hispanics	6%	21%	3%	8%	3%	0%	2%
Blacks	12%	12%	1%	2%	1%	1%	1%
Other	2%	1%	7%	8%	5%	12%	6%
	100%	100%	100% (n-982)	100% (n=228)	100% (n=243)	100% (n=162)	100% (n=349)

samples. It is approximately one third higher than the census proportions for the summer sample.

The proportion of visitors in the 45 to 64 year old age category is higher than state and national census proportions for this category for all visitor seasons. Visitation from this age group is over one third higher than state and national proportions for summer, winter, and spring; and it is over twice as high for fall visitors.

The proportion of visitors in the 65 years and over category was approximately twice as high as the state and national census proportions for this age category for three of the visitor seasons: fall, winter, and spring. This was expected because during these seasons elderly retirees from northern states are known to travel to Texas, returning north for the summer. However, it was not expected that the proportion of visitors in this age group would drop as drastically as it did for the summer season. The proportion of visitors in this age category for summer sample was only 4%, less than half the proportion for the state and national averages reported in the 1980 census. Perhaps the intense heat during Texas summers discourages those in this age category from making summer visits to the park.

EDUCATION. The thing that stands out when comparing educational level of park visitors to state and national census standards is that the proportion of visitors who have completed college is substantially higher. Approximately one third more than the national average and approximately twice as many as the average for Texas have completed college.

RACE/ETHNICITY. The proportion of anglos in the sample is higher than both the national and state averages as reported by the census. The proportions of hispanics and blacks in the sample is lower than national and state census averages. The proportions of "other" race/ethnicity was higher than

for the national and state census. These sample differences from census data were consistent across all seasons in which data were collected.

VISITOR GROUP CHARACTERISTICS

Visitors can also be described in terms of the type of group they were part of, the sex composition of that group, and the size of the group. This is shown by Table 4.

TYPE OF GROUP. The majority of visitors came to the parks in family groups. This was true for all four visitor seasons. Visitor groups comprised of family and friends were next most common, with the exception of the summer season. Friends was the third most common type of group.

GROUP SEX COMPOSITION. Groups with equal numbers of males and females were the most common. For fall, winter, and spring there were a larger proportion of groups comprised of more females than males as opposed to those with more males than females.

GROUP SIZE. For all seasons except summer the most common group size was the two person group. For the summer season the proportion of 5-10 person groups was slightly higher than the proportion of two person groups (29% vs. 26%). There were also proportionately more four person groups than either one person or three person groups, and this was consistent across all four seasons.

BEHAVIORAL CHARACTERISTICS OF VISITORS

Behavioral characteristics of visitors recorded in the survey questionnaire included whether or not they saw or participated in nineteen present programs and opportunities (Q #11); whether or not they had previously visited this park site (Q #18), the LBJ Presidential Library in Austin (Q #17-1), the LBJ Boyhood Home in Johnson City (#17-3); their likelihood of making a future

TABLE 4
VISITOR GROUP CHARACTERISTICS
AT LYNDON B. JOHNSON STATE AND NATIONAL PARKS

Group Characteristics	Total Sample		Summer Sample		Fall Sample		Winter Sample		Spring Sample	
	%	(n)	%	(n)	%	(n)	%	(n)	%	(n)
Type of Group										
Alone	1%	(11)	0%	(0)	2%	(4)	1%	(2)	1%	(5)
Family	66%	(703)	76%	(177)	61%	(159)	67%	(119)	67%	(248)
Friends	10%	(109)	22%	(49)	12%	(33)	10%	(18)	11%	(40)
Family and Friends	15%	(162)	0%	(1)	14%	(36)	16%	(29)	13%	(50)
Organized package tour	1%	(12)	0%	(0)	1%	(3)	2%	(3)	2%	(6)
Convention tour	3%	(29)	0%	(0)	6%	(16)	2%	(4)	2%	(9)
Church group	1%	(9)	0%	(1)	0%	(1)	0%	(0)	2%	(7)
School group	1%	(7)	0%	(1)	0%	(1)	0%	(0)	1%	(5)
Other type of tour	1%	(6)	0%	(1)	2%	(4)	0%	(0)	0%	(1)
Other	1%	(13)	2%	(3)	2%	(5)	2%	(3)	1%	(2)
	100%	(1061)	100%	(233)	100%	(262)	100%	(178)	100%	(373)
Group Sex Compositions:										
More males than females	29%	(197)	31%	(73)	12%	(31)	20%	(36)	15%	(57)
Equal number of both	50%	(525)	39%	(94)	55%	(141)	51%	(90)	54%	(200)
More females than males	31%	(324)	30%	(72)	33%	(84)	29%	(51)	31%	(117)
	100%	(1047)	100%	(239)	100%	(256)	100%	(177)	100%	(374)
Group Size:										
1 Person	2%	(21)	1%	(3)	2%	(5)	2%	(3)	3%	(10)
2 Persons	34%	(351)	26%	(61)	38%	(97)	34%	(60)	36%	(133)
3 Persons	13%	(135)	18%	(44)	13%	(33)	12%	(21)	10%	(37)
4 Persons	25%	(266)	22%	(52)	28%	(71)	24%	(42)	27%	(101)
5-10 Persons	20%	(207)	29%	(70)	12%	(32)	22%	(40)	17%	(65)
11+ Persons	6%	(64)	4%	(9)	7%	(18)	6%	(11)	7%	(26)
	100%	(1044)	100%	(239)	100%	(256)	100%	(177)	100%	(372)

visit to this park site (Q #19); whether or not they had a disability which hindered participation at this park (Q #23); and whether or not they would be willing to make reservations for a tour of the ranch house complex (Q #16). The results are shown in Table 5.

PRESENT PROGRAM/OPPORTUNITY PARTICIPATION: Almost all visitors reported they learned about how LBJ lived when he was here, (97% of the fall and winter visitors and 98% of the summer and spring visitors). A large majority of the visitors (approximately 80% or more of the total sample) reported they also saw/did the following other things while at the park site:

Q #11-1 Saw the exhibits in the visitor center.
Q #11-2 Learned about LBJ Ranch operations.
Q #11-3 Helpfulness of ranger at information desk.
Q #11-4 Learned how LBJ lived when he was here.
Q #11-5 Literature available at information desk.
Q #11-6 Learned about political events that happened here.
Q #11-7 Historical literature available.
Q #11-8 Found out about things here.
Q #11-10 Learned about the Germans and other people who lived here.
Q #11-11 Took bus tour of LBJ Ranch.
Q #11-13 Took in the natural surroundings.
Q #11-18 Viewed cattle and farm animals.
Q #11-19 Learned more about nature.

Two things stand out as being least done/seen by visitors. These are taking the nature trail walk (Q 11-15), which only 43% of the total sample reported, and seeing people wearing historical looking clothing at the Sauer-Beckman Farm (Q 11-16) which only 37% of the total sample reported.

PREVIOUS VISITS: Approximately one third of the summer and spring visitors and one fourth of the fall and winter visitors had visited this park site previously.

Approximately one third of the fall, winter, and spring visitors reported they had also previously visited the LBJ Presidential Library in Austin. A somewhat larger proportion of the summer visitors reported they had previously visited the LBJ Presidential Library (44%).

TABLE 5
VISITOR BEHAVIOR: PERCENT PARTICIPATING IN PRESENT PROGRAMS AND OPPORTUNITIES AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Present Programs and Opportunities	Total Sample % who saw or did		Summer Sample % who saw or did		Fall Sample % who saw or did		Winter Sample % who saw or did		Spring Sample % who saw or did	
	%	(n)*	%	(n)*	%	(n)*	%	(n)*	%	(n)[1]
1. The exhibits in the visitor center	96%	(992)	93%	(229)	97%	(244)	98%	(165)	96%	(354)
2. Opportunities to learn about LBJ Ranch operations	95%	(986)	96%	(228)	94%	(241)	93%	(166)	95%	(351)
3. The helpfulness of ranger at information desk	89%	(990)	85%	(228)	91%	(243)	88%	(165)	90%	(354)
4. Opportunities to learn how LBJ lived when he was here	98%	(987)	98%	(229)	97%	(242)	97%	(165)	98%	(351)
5. Park literature available at information desk	86%	(986)	83%	(228)	90%	(242)	85%	(166)	86%	(350)
6. Opportunities to learn about the political events that happened here	93%	(983)	96%	(226)	91%	(240)	90%	(166)	93%	(351)
7. Historical literature available	84%	(976)	80%	(227)	84%	(240)	82%	(165)	82%	(344)
8. Opportunities to find out about things here	96%	(968)	98%	(223)	95%	(235)	96%	(163)	95%	(347)
9. Historical type items for purchase	65%	(945)	68%	(217)	62%	(234)	63%	(161)	65%	(333)
10. Opportunities to learn about the Germans and other people who lived here	79%	(969)	82%	(225)	80%	(236)	81%	(162)	76%	(346)
11. Bus tour of LBJ Ranch	90%	(986)	92%	(230)	88%	(241)	90%	(165)	89%	(350)
12. Other tours/talks led by a ranger	72%	(954)	78%	(223)	71%	(228)	72%	(163)	68%	(340)
13. Opportunities to take in the natural surroundings	91%	(980)	96%	(228)	89%	(239)	85%	(165)	91%	(348)
14. Motion picture of LBJ Ranch	62%	(965)	63%	(223)	58%	(238)	65%	(162)	64%	(342)
15. Nature trail	43%	(947)	39%	(216)	37%	(232)	37%	(155)	53%	(344)
16. People wearing historical looking clothing at the Sauer-Beckman Farm	37%	(937)	37%	(216)	35%	(233)	33%	(161)	40%	(327)
17. Wild animal viewing area	74%	(964)	74%	(224)	75%	(235)	69%	(163)	75%	(342)
18. Opportunities to view cattle and farm animals	91%	(972)	94%	(227)	91%	(237)	91%	(162)	90%	(346)
19. Opportunities to learn more about nature	87%	(951)	90%	(220)	83%	(235)	84%	(161)	89%	(335)

*(n) is the total number of people responding to these items in question 11 of the questionnaire. The percent represents the proportion of the respondents who reported that they actually saw or did these things.

TABLE 5, CONTINUED
VISITOR BEHAVIOR: PERCENT PARTICIPATING IN PROGRAMS AND OPPORTUNITIES
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Other Behavioral Characteristics	Total Sample		Summer Sample		Fall Sample		Winter Sample		Spring Sample	
	%	(n)*	%	(n)*	%	(n)*	%	(n)*	%	(n)*
Have Previously Visited:										
This park site	30%	(969)	33%	(222)	26%	(239)	24%	(160)	33%	(348)
LBJ Library in Austin	36%	(990)	44%	(230)	31%	(245)	33%	(162)	36%	(353)
LBJ Boyhood Home	59%	(992)	62%	(231)	51%	(246)	61%	(164)	62%	(351)
Johnson Pioneer Settlement	34%	(982)	38%	(229)	29%	(244)	33%	(162)	63%	(346)
Likelihood of A Future Visit to This Park:										
Probably will	47%	(468)	57%	(130)	44%	(107)	40%	(66)	47%	(165)
Perhaps will	29%	(287)	29%	(66)	28%	(70)	29%	(48)	29%	(103)
Probably will not	24%	(238)	14%	(34)	28%	(68)	31%	(51)	24%	(85)
	100%	(993)	100%	(230)	100%	(245)	100%	(165)	100%	(353)
Had Disability which Hindered Participation at this Park:										
Yes	4%	(42)	5%	(11)	3%	(7)	3%	(5)	5%	(19)
No	96%	(954)	95%	(220)	97%	(240)	97%	(160)	95%	(334)
	100%	(996)	100%	(231)	100%	(247)	100%	(165)	100%	(353)
Willing to Make Reservations for Ranch House Tour:										
Yes	64%	(619)	69%	(156)	64%	(153)	60%	(96)	63%	(214)
No	35%	(348)	31%	(70)	36%	(86)	40%	(65)	37%	(127)
	100%	(967)	100%	(226)	100%	(239)	100%	(161)	100%	(341)

*(n) is the total number of people responding to these items in question 11 of the questionnaire. The percent represents the proportion of the respondents who reported that they actually saw or did these things.

Over half of the visitors sampled in each season reported they had visited the LBJ Boyhood Home in Johnson City. This approached two thirds of the sample in the summer, winter, and spring seasons.

Approximately one third of the sample reported they had visited the Johnson Pioneer Settlement in Johnson City, and this proportion was fairly consistent across all four visitor seasons.

LIKELIHOOD OF FUTURE VISIT: Approximately half of the total sample said they would probably return for another visit in the future. The proportion answering this way ranged from 40% of the winter visitors to 57% of the summer visitors. In addition to those who said they would probably again visit this site, almost 30% of visitors in each season said they "perhaps" would visit again in the future.

DISABILITIES HINDERING PARTICIPATION: Not more than 5% of visitors in any of the four seasons reported having a disability which hindered them from fully participating in what this park had to offer.

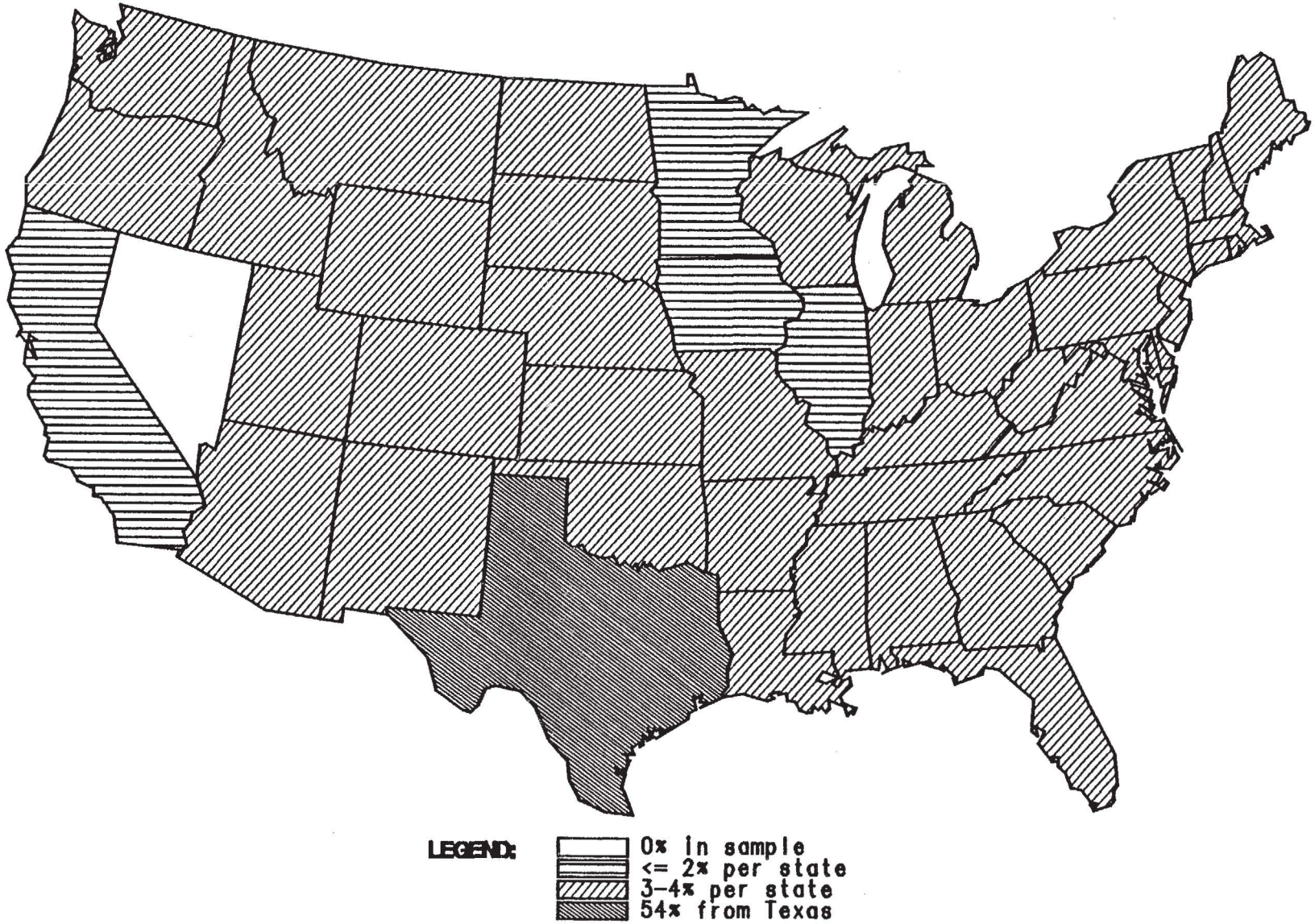
MAKING RESERVATIONS: Approximately two thirds of visitors sampled in each season said they would be willing to make a reservation for a tour of the ranch house complex.

U.S. GEOGRAPHICAL ORIGINS OF VISITORS

Figure 1 portrays the relative proportion of visitation originating from different states in the continental United States. Over the entire year sampled visitors came from a total of 45 different states. Figure 1 divides these state origins into three categories. Texas was the only state in one category, supplying 54% of the visitation for the year. Four states were in another category, and each accounted for either three or four percent of the sampled annual visitation. These states were California, Illinois, Iowa, and Minnesota. The rest of the annual visitation was distributed among the other

FIGURE 1

VISITATION TO LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS BY STATE OF RESIDENCE FOR STUDY YEAR



40 states. None of these states supplied more than two percent of the total annual visitation.

When broken down by season those visitor origin distributions varied somewhat, but the largest proportion of visitors always came from Texas. The proportion of Texans visiting this historical park site reached a high of 69% in summer and a low of 38% in winter. The spring visitor origin distribution most closely approximated that of the entire year. Fall and winter visitor origin distributions portrayed the greatest variation.

In fall California visitors comprised the largest proportion of the sample after Texas, 87% of the total. Five other states followed behind California by contributing either three or four percent of sampled fall visitation: Florida, Illinois, Minnesota, New York, and Pennsylvania. In winter Minnesota visitors comprised the largest proportion of the sample after Texas, 7% of the total. Next largest was the proportion of sampled visitation originating in Illinois and Iowa, comprising five and six percent of the winter visitation respectively. These states were followed by California, Indiana, Michigan, Ohio, and Wisconsin - each contributing either three or four percent of the sampled winter visitation.

VISITOR EXPECTATIONS, PREFERENCES, MOTIVES, AND QUALITY RATINGS

The first question in the questionnaire consisted of a list of twelve present interpretive program offerings. Visitors were asked to indicate whether or not they expected to find each of these at the park. They were also asked to indicate how important they felt each was for their visit to the park. This represents a measure of preference for these present offerings. Preferences for potential future program offerings were measured by questions 14 and 15 in the questionnaire. A list of eighteen items comprising question 4 in the questionnaire was used to measure visitor motives for

visiting the LBJ National and State Historical Parks. A list of 19 items comprising question 11 of the questionnaire was used to acquire visitor ratings of present program offerings and other opportunities at the park. Visitors were first asked to rate each of these on a five point scale ranging from "A" for excellent to "F" for fails. They were then asked to circle each of the 19 program offerings which they found interesting.

PRESENT PROGRAM EXPECTATIONS

Table 6 shows that the present interpretive media options expected by the greatest majority of visitors were park literature at information desk, exhibits inside the visitor center, information desk attended by a ranger, and bus tour. With the exception of bus tour expectations by winter visitors, over 80% of visitors expected these things. This dropped to 76% for bus tour expectations of the winter visitors. The lowest ranking present program offering in terms of visitor expectations was for people wearing historical looking clothing who give demonstrations. The proportion of visitors expecting to find this at the park ranged from 21% in the winter season to 28% in the summer. The next lowest ranking in terms of visitor expectations was for authentic historical type items for purchase. The proportion of visitors expecting to find this at the park ranged from 46% in fall and spring to 51% in summer and winter.

VISITOR PREFERENCES

PREFERENCES FOR PRESENT PROGRAMS: Table 7 shows that the bus tour was the most highly preferred present program. The average importance value attached to this by all visitors was 4.3, which signifies it is rated between very important and extremely important. This average importance value

TABLE 6

EXPECTATION RANKINGS FOR PRESENT INTERPRETIVE PROGRAM OFFERINGS
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Present Offerings	Total Sample Rank	Total Sample % Expecting	Summer Sample Rank	Summer Sample % Expecting	Fall Sample Rank	Fall Sample % Expecting	Winter Sample Rank	Winter Sample % Expecting	Spring Sample Rank	Spring Sample % Expecting
Park literature at information desk	1	92%	1	94%	1	94%	1	94%	1	90%
Exhibits inside visitor center	2	89%	2	93%	3	88%	1	94%	2	86%
Information desk attended by ranger	3	86%	4	85%	2	93%	2	87%	3	85%
Bus tour	4	83%	3	86%	4	86%	3	76%	4	82%
Historical literature for purchase	5	75%	5	77%	5	74%	4	74%	5	74%
Cattle and farm animal viewing area	6	71%	6	74%	6	70%	6	66%	6	71%
Other tours/talks led by ranger	7	68%	7	69%	6	70%	5	70%	7	63%
Nature trail	8	58%	8	63%	8	52%	8	54%	8	60%
Motion picture of LBJ Ranch	9	54%	9	57%	7	57%	7	56%	9	52%
Wild animal viewing area	10	50%	10	56%	9	47%	10	49%	10	50%
Authentic historical type items for purchase	11	48%	11	51%	10	46%	9	51%	11	46%
People wearing historical looking clothing who give demonstrations	12	24%	12	28%	11	24%	11	21%	12	24%

TABLE 7
MEAN IMPORTANCE RANKINGS
FOR PRESENT INTERPRETATIVE PROGRAM OFFERINGS
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Present Offerings	Rank	Total Sample X	Rank	Summer Sample X	Rank	Fall Sample X	Rank	Winter Sample X	Rank	Spring Sample X
Bus tour	1	4.3	1	4.3	1	4.4	1	4.3	1	4.3
Park literature at information desk	2	3.9	2	3.8	2	3.9	2	3.8	2	3.9
Information desk attended by ranger	2	3.9	2	3.8	2	3.9	2	3.8	2	3.9
Exhibits inside visitor center	3	3.7	3	3.7	3	3.8	3	3.7	3	3.7
Other tours/talks led by ranger	3	3.7	3	3.7	3	3.8	4	3.6	4	3.6
Motion picture of LBJ ranch	4	3.4	4	3.3	4	3.5	5	3.5	6	3.3
Cattle and farm animal viewing area	4	3.4	4	3.3	4	3.5	6	3.3	5	3.4
Wild animal viewing area	5	3.3	4	3.3	5	3.4	6	3.3	6	3.3
Nature trail	6	3.2	5	3.1	6	3.2	7	3.1	5	3.4
Historical literature for purchase	7	2.9	6	3.0	7	2.9	8	2.9	7	2.9
People wearing historical looking clothing who give demonstrations	8	2.7	7	2.8	8	2.5	9	2.7	8	2.7
Authentic historical type items for purchase	9	2.5	8	2.6	9	2.4	10	2.5	9	2.4

*It should be noted that the distributions upon which some of these means are based were bi-modal.

attached to the bus tour did not differ significantly for any of the four visitor seasons.

Two things tied for second rank in importance: park literature at information desk, and information desk attended by ranger. The mean preference value for these two items in the total sample was 3.9, which signifies those things are rated very important by visitors. Again there was no seasonal variation.

Tied for third rank were the following two program opportunities: exhibits inside the visitor center, and other tours/talks led by ranger. The fact that the mean preference value attached to these two things was only slightly lower than that of the second ranked programs would lead to the conclusion that these things are also rated very important by visitors.

Those programs and opportunities ranked 4 through 6 in Table 7 had mean preference scores which, when rounded to the nearest whole number would indicate that visitors consider these things of moderate importance for their visit.

The lowest ranked offering in Table 7 is preference for authentic historical type items for purchase. The lowest mean preferences values for this were for fall and spring visitors, who tended to attach only slight importance to this with respect to their park visit.

PREFERENCES FOR FUTURE PROGRAM OPTIONS: Table 8 shows that the future program option receiving the highest mean preference value was bus (tram tour) access to the LBJ Ranch. The mean preference values indicate this was considered very important by visitors in all seasons. Personally led tours of major points of interest ranked second highest in importance for summer and fall visitors. It ranked fourth for winter visitors and third for spring visitors. Mean preferences values for an updated motion picture "tour" of ranch ranked third in importance for summer, fall, and winter visitors. It

TABLE 8
MEAN IMPORTANCE RANKINGS
FOR FUTURE PROGRAMS
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Future Programs	Total Year Rank	Total Year X	Summer Data Rank	Summer Data X	Fall Data Rank	Fall Data X	Winter Data Rank	Winter Data X	Spring Data Rank	Spring Data X
Bus (tram) access to LBJ ranch	1	4.1	1	4.3	1	4.2	1	4.0	1	4.1
Personally led tours of major points of interest	2	3.4	2	3.6	2	3.4	4	3.1	3	3.3
Updated motion picture "tour" of ranch	3	3.3	3	3.4	3	3.3	3	3.2	2	3.4
Park led bus tours with 15-30 minute intervals	3	3.3	3	3.4	2	3.4	2	3.5	4	3.2
Self-guided tours with stationed rangers	4	3.1	5	3.2	4	3.0	3	3.2	5	3.1
Ranger led tour of grounds and landscaping	4	3.1	4	3.3	4	3.0	5	3.0	5	3.1
Ranger narrated slide program	5	2.9	6	3.1	5	2.9	7	2.8	7	2.9
Ranger led nature walk from state park visitor center	5	2.9	6	3.1	7	2.7	7	2.8	6	3.0
Park led bus tour with 5 minute stops	5	2.9	8	2.9	6	2.8	6	2.9	6	3.0
Self-guided tours with tape recorded messages	6	2.8	7	3.0	8	2.6	7	2.8	8	2.8
Self-guided tours with signs	6	2.8	9	2.9	8	2.6	7	2.8	8	2.8
On foot access to LBJ ranch	7	2.7	10	2.8	8	2.6	6	2.9	9	2.6
Self-guided tours with park guide book or brochure	8	2.6	10	2.8	9	2.4	8	2.6	9	2.6
Private motor vehicle access to LBJ ranch	9	2.4	11	2.7	10	2.3	9	2.4	10	2.4
Authentic historical reproductions for purchase	9	2.4	12	2.6	10	2.3	9	2.4	10	2.4
Self-guided tour in own private vehicle	9	2.4	12	2.6	11	2.2	10	2.3	11	2.3
Park led bus tour with 30-40 minute intervals	10	2.2	14	2.3	11	2.2	10	2.3	12	2.1
Bicycle access to LBJ ranch	10	2.2	13	2.4	12	1.9	11	2.2	12	2.1

*It should be noted that the distributions upon which some of these means are based were bi-modal.

ranked second in importance for spring visitors.

Future park led bus tours which would come at 15 to 30 minute intervals tied for third place preference for summer visitors. It tied for second place preference for fall and winter visitors, but was fourth place for spring visitors. When this 15 to 30 minute interval bus tour alternative is compared to 5 minute and 30 to 40 minute interval alternatives, visitors clearly prefer the former. The 5 minute alternative preference mean value ranks fifth for the total, and the 30 to 40 minute alternative ranks 10th. The 30 to 40 minute interval is particularly undesirable because it had the second lowest mean preference value for any of the future programs listed in question 14.

The lowest ranking mean preference value in Table 8 is for future bicycle access to the LBJ Ranch. This would be of only slight importance for visitors in all seasons and should probably not be considered.

Three other future program opportunities also ranked quite low for the total year sample, having mean preference values which, when rounded to the nearest whole number, indicate only slight importance for visitors. These were private motor vehicle access to the LBJ ranch, authentic historical reproductions for purchase, and self-guided tour of the LBJ Ranch in visitors' own vehicles.

RANCH HOUSE ACCESS PREFERENCES: Table 9 shows that the rankings of preference means for different parts of the ranch house interior were all higher than the ranking of average preference for access to the secret service command post. The preference for access to the secret service command post, in turn, was higher than the average preference for access to the airplane hanger.

TABLE 9
MEAN IMPORTANCE RANKINGS FOR FUTURE
ACCESS TO DIFFERENT PARTS OF THE RANCH HOUSE COMPLEX
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Ranch House Complex	Rank	Total Sample X	Rank	Summer Sample X	Rank	Fall Sample X	Rank	Winter Sample X	Rank	Spring Sample X
Living Room	1	3.7	1	3.7	1	3.7	1	3.7	1	3.6
Sitting Room	2	3.6	1	3.7	2	3.6	1	3.7	1	3.6
Kitchen	2	3.6	1	3.7	3	3.5	2	3.6	2	3.5
Working Office	2	3.6	1	3.7	3	3.5	2	3.6	2	3.5
Guest Rooms	3	3.5	2	3.6	3	3.5	2	3.6	3	3.4
Bedrooms	3	3.5	2	3.6	3	3.5	2	3.6	3	3.4
Secret Service command Post	4	3.1	3	3.3	4	3.0	3	3.2	4	3.0
Airplane Hanger	5	2.6	4	2.8	5	2.4	4	2.6	5	2.5

*It should be noted that the distributions upon which some of these means are based were bi-modal.

VISITATION MOTIVES

Table 10 shows a ranking of mean importance values for the 18 motive items comprising question 4 in the questionnaire. Respondents rated each item in question 4 in terms of how important each was as a reason for coming to visit the park. The motive with the highest mean importance value and ranked number one was to learn how LBJ lived when he was here. This motive tended to have an average value indicating it was a very important reason for all visitors in all seasons.

Three items tied for number two rank in the overall sample. Their motive values rounded to the nearest whole number indicate that these were also very important reasons for coming. These motives were to find out about things at the park, to gain an experience that could be looked back on, and to take in the natural surroundings.

Motives ranking three through nine in mean importance would be interpreted as tending to be of moderate importance as reasons for coming. The three motives ranking lowest for the total sample, and also for each of the four seasons tended to be of only slight importance as reasons for coming. These motives were spiritual values, for a chance to meet new people, and to help release or reduce some built up tension.

PROGRAM QUALITY/INTEREST RATINGS

QUALITY OF PRESENT PROGRAMS: Table 11 shows that the top rated program as determined by mean response value was the bus tour of the ranch. The mean values of 4.7 for summer and fall visitors and 4.8 for winter and spring visitors indicate that this program tends to be considered excellent by all visitors.

TABLE 10
MEAN IMPORTANCE RANKINGS
FOR BENEFITS DESIRED BY VISITORS
TO LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Benefits Desired by Visitors	Rank	Total Sample X	Rank	Summer Sample X	Rank	Fall Sample X	Rank	Winter Sample X	Rank	Spring Sample X
To learn how LBJ lived when he was here	1	3.8	1	3.9	1	3.9	1	3.7	1	3.8
To find out about things here	2	3.6	2	3.6	2	3.7	2	3.6	3	3.6
To gain an experience I can look back on	2	3.6	2	3.6	2	3.7	3	3.5	3	3.6
So I could take in the natural surroundings	2	3.6	3	3.5	3	3.6	3	3.5	2	3.7
To learn about the political events that happened here	3	3.3	4	3.4	5	3.2	4	3.4	4	3.3
So I could do things with my companions	4	3.2	5	3.3	6	3.1	5	3.2	5	3.2
To learn about the LBJ ranch operations	4	3.2	6	3.2	4	3.3	6	3.1	6	3.1
So the family could spend some time together	5	3.1	3	3.5	8	2.9	7	2.9	5	3.2
To learn about the wild animals of the area	5	3.1	7	3.1	7	3.0	5	3.2	5	3.2
To help others learn about things here	6	3.0	6	3.2	8	2.9	7	2.9	7	3.0
To learn more about nature	6	3.0	8	3.0	8	2.9	8	2.8	6	3.1
To learn about the plants of the area	6	3.0	9	2.8	8	2.9	8	2.8	5	3.2
To learn about the Germans and other people who lived here	7	2.8	10	2.7	9	2.8	9	2.7	8	2.8
To learn about the German farm operation	8	2.7	10	2.7	10	2.6	10	2.6	9	2.7
Because I thought the people here would be considerate	9	2.6	10	2.7	11	2.5	11	2.4	10	2.5
Because of personal spiritual values	10	2.1	11	2.2	12	2.1	12	2.0	11	2.2
It would be a chance to meet new people	10	2.1	11	2.2	13	2.0	12	2.0	12	2.1
To help release or reduce some built up tension	10	2.1	11	2.2	12	2.1	13	1.8	12	2.1

*It should be noted that the distributions upon which some of these means are based were bi-modal.

TABLE 11
MEAN QUALITY RANKINGS FOR PRESENT PROGRAM OFFERINGS AND OPPORTUNITIES
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Present Programs and Opportunities.	Total Year Rank	Total Year X	Summer Data Rank	Summer Data X	Fall Data Rank	Fall Data X	Winter Data Rank	Winter Data X	Spring Data Rank	Spring Data X
Bus tour of LBJ Ranch	1	4.8	1	4.7	1	4.7	1	4.8	1	4.8
Helpfulness of ranger at information desk	2	4.5	2	4.5	2	4.6	2	4.5	3	4.5
Quality of other tours/talks led by a ranger	2	4.5	2	4.5	4	4.4	2	4.5	3	4.5
Opportunities to learn how LBJ lived when he was here	2	4.5	2	4.5	4	4.4	2	4.5	3	4.5
Opportunities to take in the natural surroundings	2	4.5	3	4.4	4	4.4	3	4.4	2	4.6
The exhibits in the visitor center	2	4.5	3	4.4	3	4.5	3	4.4	3	4.5
Opportunities to learn about LBJ Ranch operation	3	4.4	3	4.4	4	4.4	3	4.4	4	4.3
Nature trail walk	4	4.3	4	4.2	5	4.3	4	4.3	4	4.3
Motion picture of LBJ Ranch	4	4.3	6	4.1	4	4.4	4	4.3	5	4.2
Opportunities to view cattle and farm animals	4	4.3	5	4.3	5	4.3	4	4.3	5	4.2
Park literature available at information desk	5	4.2	4	4.2	5	4.3	4	4.3	5	4.2
Opportunities to find out about things here	5	4.2	4	4.2	6	4.2	4	4.3	5	4.2
People wearing historical looking clothing at Sauer-Beckman farm	6	4.1	8	3.9	5	4.3	5	4.1	5	4.2
Wild animal viewing area	7	4.0	7	4.0	7	4.1	6	4.0	6	3.9
Historical literature available	7	4.0	7	4.0	8	4.0	6	4.0	6	3.9
Opportunities to learn more about nature	7	4.0	8	3.9	9	3.9	7	3.9	6	3.9
Opportunities to learn more about the Political events	8	3.8	9	3.8	10	3.8	8	3.8	6	3.9
Historical items for purchase	9	3.6	10	3.6	12	3.6	9	3.7	7	3.6
Opportunities to learn about Germans and others who lived here	9	3.6	11	3.4	11	3.7	10	3.6	7	3.6

Five different programs and opportunities tied for second place quality rating for the overall sample. Each had a mean quality rating of 4.5, exactly mid-way between good and excellent on the rating scale, and this did not vary by more than one percentage point for any one of the four seasons of the year. These programs and opportunities were:

Helpfulness of ranger at information desk.
Quality of other tours/talks led by a ranger.
Opportunities to learn how LBJ lived when he was here.
Opportunities to take in the natural surroundings.
The exhibits in the visitor center.

With one exception all of the lower ranked programs and opportunities had average values which, rounded to the nearest whole number, would indicate a quality rating of good. The exception is the summer visitors' rating of opportunities to learn about Germans and others who lived here. The mean quality rating of 3.4 for this opportunity tends to indicate that the park is perceived to be doing only a fair job of providing for this.

INTEREST IN PRESENT PROGRAMS: Table 12 shows the percentage of visitors who indicated that they found the present programs and opportunities interesting. These percentages were calculated only for those visitors who actually saw or did these things. The program found interesting by the largest majority of visitors was the bus tour of the LBJ Ranch. Over 80% of visitors in all four visitor seasons indicated that they found this program interesting.

The thing found interesting by the next largest proportion of visitors across all four seasons was the opportunity to learn about how LBJ lived when he was here. Over two thirds of visitors in all seasons found this interesting.

TABLE 12
RANKINGS FOR INTEREST IN PRESENT PROGRAMS AND OPPORTUNITIES
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Present Programs and Opportunities	Rank	Total Sample % Interesting	Rank	Summer Sample % Interesting	Rank	Fall Sample % Interesting	Rank	Winter Sample % Interesting	Rank	Spring Sample % Interesting
Bus tour of LBJ Ranch	1	85%	1	83%	1	86%	1	85%	1	87%
Opportunities to learn about how LBJ lived when he was here	2	68%	2	67%	2	67%	2	70%	2	70%
The exhibits in the visitor center	3	63%	3	54%	3	64%	4	66%	3	67%
Opportunities to learn about LBJ Ranch operations	4	59%	5	52%	5	61%	3	67%	5	59%
Motion picture of LBJ Ranch	4	59%	4	53%	4	62%	5	60%	4	60%
Opportunities to view cattle and farm animals	5	52%	6	47%	4	62%	6	53%	8	49%
Opportunities to take in the natural surroundings	6	50%	9	40%	8	48%	7	48%	6	58%
Nature trail walk	7	48%	8	42%	11	40%	8	44%	7	56%
Wild animal viewing area	8	46%	7	43%	7	51%	9	43%	9	46%
Historical type items for purchase	9	42%	10	40%	9	47%	7	48%	12	37%
People wearing historical looking clothing at the Sauer-Beckman farm	10	40%	11	35%	6	54%	10	39%	13	34%
Opportunities to find out about things here	11	36%	13	28%	11	40%	12	34%	10	40%
Opportunities to learn about the political events that happened here	12	35%	12	32%	11	40%	11	36%	12	34%
Opportunities to learn about the Germans and other people who lived here	13	31%	15	21%	10	42%	13	32%	14	29%
Opportunities to learn more about nature	14	30%	14	24%	12	27%	16	22%	11	38%
The helpfulness of ranger at information desk	15	25%	16	18%	12	27%	14	26%	15	27%
Park literature available at information desk	16	20%	18	12%	14	23%	15	23%	17	22%
Historical type items for purchase	17	13%	19	10%	15	13%	17	16%	18	14%
Historical literature available	18	10%	17	13%	13	24%	15	23%	16	23%

Approximately two thirds of the fall, winter and spring visitors found the exhibits in the visitor center interesting, but only 54% of summer visitors reported such a reaction.

The two things which the lowest percentages of visitors in the total sample found interesting were historical type items for purchase (13%) and historical literature available (10%). For the summer sample, a similarly low percentage (12%) of visitors found park literature available at the information desk interesting.

IMPORTANCE/PERFORMANCE ANALYSIS

Importance/performance analysis refers to a form of analysis originally developed by market researchers as a method of simultaneously analyzing how consumers perceive a product's importance and performance (Martilla and James 1877). It was subsequently adapted for assessing citizen views of river recreation development (O'Leary and Adams 1981), and to assist the U.S. Army Corps of Engineers in making management decisions on whether to increase or decrease certain facilities and services at outdoor recreation areas in Arkansas (Mills and Snepenger 1983).

In the present study respondents were asked to indicate product importance (their preferences), and to also rate the performance of the LBJ National and State Historical Parks in terms of various interpretive program services and opportunities for different types of experiences. Results are analyzed in graphical two dimensional plots which can be divided into four quadrants in which each item can be located as a grid point. The location of the lines defining the four quadrants is somewhat arbitrary, and thus grid points falling close to these lines should not necessarily be assigned to the

quadrant they appear to be in. However, in general, the plotting of items into four different quadrants on this grid can be interpreted as follows:

UPPER RIGHT QUADRANT:

If both importance of the item (preference) and performance of the area (quality) for that item are rated high, the interpretation is "keep up the good work" (Martilla and James 1977).

UPPER LEFT QUADRANT:

If importance of the item (preference) is rated high but performance (quality) is rated low, the interpretation is "concentrate (your resources) here" (Martilla and James 1977).

LOWER LEFT QUADRANT:

If both importance of the item (preference) and performance (quality) are rated low, the interpretation is "low priority" (Martilla and James 1977). This probably indicates that relatively few resources are being allocated for this item, and this is appropriate because preference for it is low.

LOWER RIGHT QUADRANT:

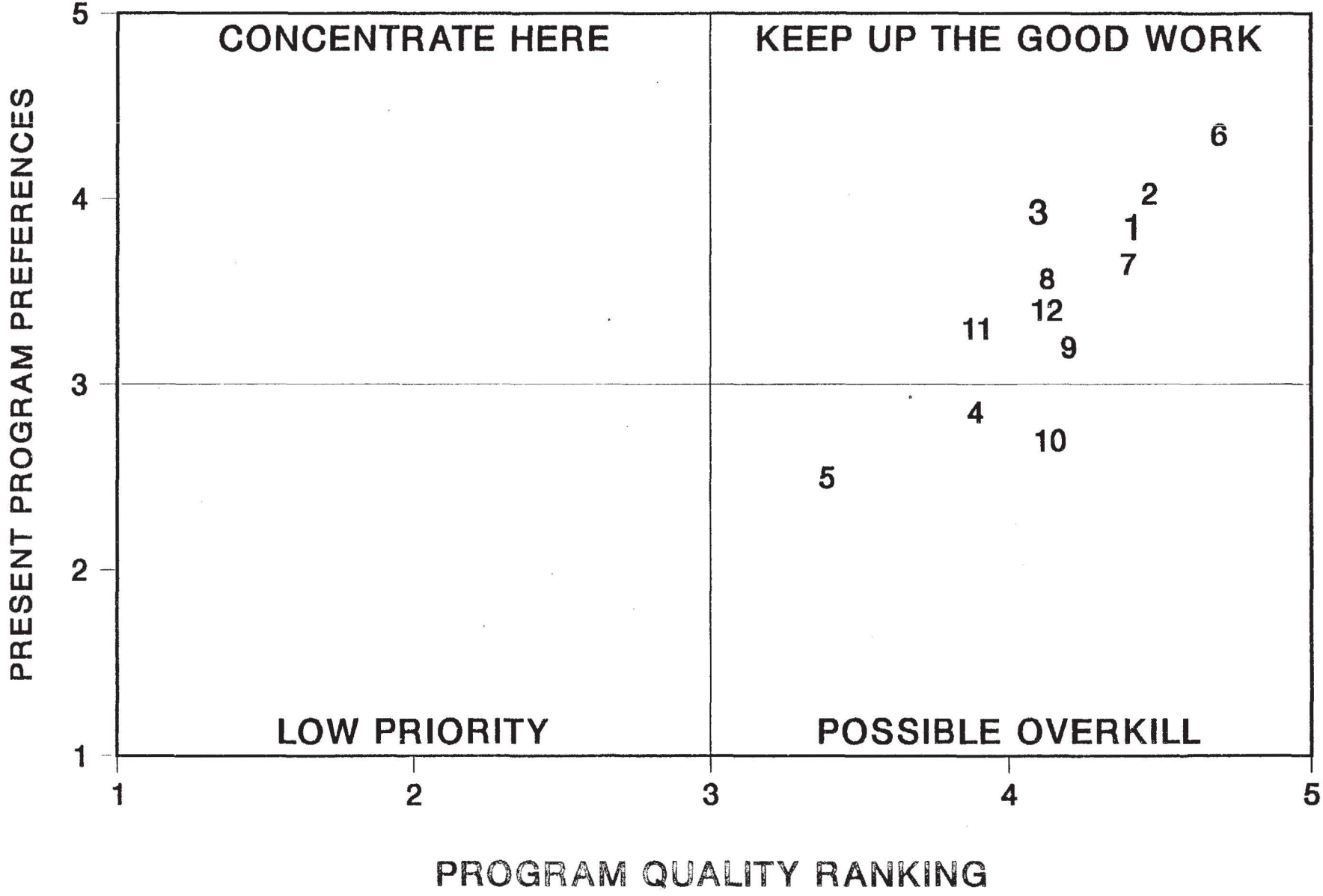
If importance of the item (preference) is rated low but performance (quality) is rated high, the interpretation is "possible overkill" (Martilla and James 1977). That is, it would probably not matter to most visitors if management reduced the amount of money allocated to providing the indicated facility, service, or experience opportunity.

Figure 2 portrays a grid plot of interpretive program services and facilities in terms of their importance/performance ratings. Figure 3 portrays a grid plot of the importance/performance ratings of different kinds of learning experience opportunities sought by park visitors. Data presented are for the total year sample.

INTERPRETIVE PROGRAM SERVICES AND FACILITIES

Looking first at Figure 2, mean preference (importance) scores were plotted against mean performance scores for each of the interpretive facility

FIGURE 2
Current Interpretive Program Opportunities at Lyndon B. Johnson State and National Historical Parks



and service items. The resulting plots allow evaluation of each of the 12 items from question number one of the questionnaire, in terms of both user preference and agency performance. Items are identified as follows by numbers representing the following item content from question one of the questionnaire:

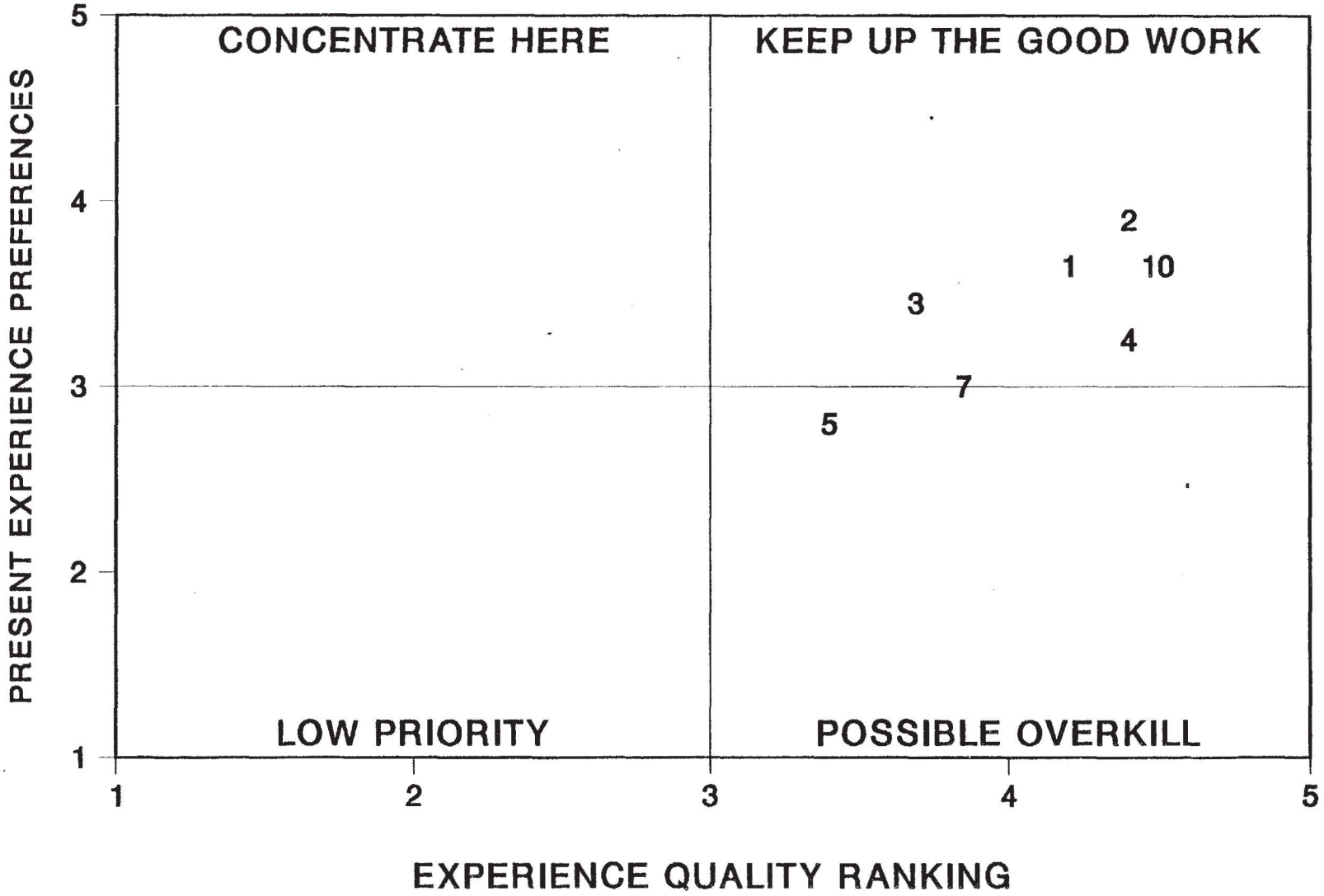
1. Exhibits inside visitor center.
2. Information desk attended by ranger.
3. Park literature given out at information desk.
4. Historical literature for purchase.
5. Authentic historical type items for purchase.
6. Bus tour/talks led by a ranger.
7. Other tours/talks led by a ranger.
8. Motion picture of LBJ ranch.
9. Nature trail.
10. People wearing historical looking clothing who give demonstrations.
11. Wild animal viewing area (deer, buffalo).
12. Cattle and farm animal viewing area.

Nine of the twelve present program opportunity items in Figure 2 are in the quadrant entitled "Keep Up the Good Work". They are the items defined above numbered 1, 2, 3, 6, 7, 8, 9, 11, 12. This result indicates that the National and State Historical Parks are doing both an effective and efficient job of providing visitors these program opportunities. Three of the items (4, 5, 10) are in the quadrant entitled "Possible Overkill". This indicates that the National and State Historical Parks are doing an effective job of providing these program opportunities, but could perhaps become somewhat more efficient by cutting back on the resources invested in them. These results were replicated for each of the four visitor seasons, with the exception of summer where item 4 was on the arbitrary line separating the "Keep Up the Good Work" quadrant from the "Possible Overkill" quadrant.

LEARNING OPPORTUNITIES SOUGHT BY PARK VISITORS

Figure 3 portrays a grid plot of importance/performance ratings of experience opportunities to satisfy educational reasons (motives) for park visits.

FIGURE 3
Experience Opportunities Motivating Visitors To Come to Lyndon B. Johnson State and National Historical Parks



These items are identified as follows:

1. Opportunities to find out about things here.
2. Opportunities to learn about how LBJ lived when he was here.
3. Opportunities to learn about the political events that happened here.
4. Opportunities to learn about LBJ ranch operations.
5. Opportunities to learn about the Germans and others who lived here.
7. Opportunities to learn more about nature.
10. Opportunities to take in the natural surroundings.

The opportunity items numbered 1, 2, 3, 4, and 10 are all plotted in the "Keep Up the Good Work" quadrant. This means the parks are doing both an effective and efficient job of providing these opportunities. Item 5, "Opportunities to learn about he Germans and others who lived here", is plotted in the "Possible Overkill" quadrant. This means the National and State parks could cut back somewhat on the resources invested in providing this opportunity and in so doing perhaps become more efficient. These results for items 1, 2, 3, 4, 5, and 10 were replicated for each of the four visitor seasons. Item 7, "Opportunities to learn more about nature," was plotted on the arbitrary line in Figure Three which separated the "Keep Up the Good Work" quadrant from the "Possible Overkill" quadrant. However, for spring, when many visitors are attracted to the park to view wildflowers, it was plotted well into the "Keep Up the Good Work" quadrant.

MARKET SEGMENTATION OF PARK VISITORS

The process of dividing a clientele into potential client groups is known as market segmentation. Market segmentation is based upon assumptions about the behavior of population subgroups and entails adjusting the marketing mix (the product, price, promotion, and distribution) to meet the needs and wants of the target segments (Stynes 1983). Not all markets can benefit from segmentation because in some cases consumer preferences may be fairly homogeneous, or the market may be too small to serve special sub-groups.

However, most markets, and most tourism organizations, will benefit from a segmentation strategy (Stynes 1983).

A variety of variables may be used to differentiate individuals from each other. These include socio-demographic, behavioral, and geographic characteristics. Another type of variable which may be used in market segmentation is the benefits sought by consumers from a product. This is known as benefit-based segmentation (Howard and Crompton 1980). Six benefit-based segments of visitors were identified for the LBJ State and National Historical Parks. They were identified by a cluster analysis of the visitors into groups based upon their ratings of four benefit factors.

MARKET SEGMENTATION ANALYSIS

The benefit-based segmentation of visitors set forth in the following sections was arrived at by first performing a factor analysis on the visitors' scores of the 18 benefit items listed on page two of the questionnaire. Factor loadings defined four types of benefit factors desired by visitors: Social Factor, Nature Factor, LBJ Learning Factor, and German Factor. Table 13 shows the items from question four in the questionnaire which defined each of these factors. A benefit factor "score" was then calculated for each person interviewed by adding the numbers they circled in response to the appropriate items in question four, and dividing by the number of items pertaining to each particular factor to get an average number. These are termed factor scale scores. They were calculated similarly for each benefit factor and found to be reliable measures in each case.

Next, a cluster analysis was performed that placed the visitors into six distinct segments based upon their ratings on the four previously mentioned benefit factors (see Table 14). Two statistical tests, analysis of variance

TABLE 13
FACTOR LOADINGS DEFINING FOUR
TYPES OF BENEFITS DESIRED BY VISITORS
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Benefits Desired by Visitors	LBJ Learning Factor	German Factor	Nature Factor	Social Factor
1. To find out about things here	High	--	--	--
2. To learn how LBJ lived when he was here	High	--	--	--
3. To learn about the political events that happened here	High	--	--	--
4. To learn about the LBJ Ranch operations	High	--	--	--
5. To learn about the Germans and other people who lived here	--	High	--	--
6. To learn about the German farm operation	--	High	--	--
7. To learn about nature	--	--	High	--
8. To learn about the plants of the area	--	--	High	--
9. To learn about the wild animals of the area	--	--	High	--
10. So I could take in the natural surroundings	--	--	High	--
11. So the family could spend some time together	--	--	--	High
12. To help others learn about things here	--	--	--	High
13. So I could do things with my companions	--	--	--	High
14. It would be a chance to meet new people	--	--	--	High
15. Because of personal spiritual values	--	--	--	High
16. To gain an experience I can look back on	High	--	--	--
17. To help release or reduce some built up tension	--	--	--	High
18. Because I thought the people here would be considerate	--	--	--	High

*Factor loadings of .40 or larger were considered "High" for purposes of defining the four factors with these questionnaire measures of desired benefits from the park visit.

TABLE 14
MARKET SEGMENTS DESCRIBED BY BENEFIT FACTORS
FOR VISITORS TO LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Market Segments	Social Factor	Nature Factor	LBJ Learning Factor	German Factor
Segment #1: Highly Interested and Social	High (4)	High (5)	High (4)	High (4)
Segment #2: Low Interest	Low (2)	Low (2)	Mod (3)	Low (1)
Segment #3: Moderate General Interest	Low (2)	Mod (3)	Mod (3)	Mod (3)
Segment #4: Nature First	Mod (3)	High (4)	Mod (3)	Low (2)
Segment #5: High General Interest	Mod (3)	High (4)	High (4)	High (4)
Segment #6: High LBJ Interest	Mod (3)	Mod (3)	High (4)	Mod (3)

* Average Factor scale scores rounded to the nearest whole number were used to define each of the benefit based market segments. The numbers correspond to the original item response categories in the questionnaire: 1 = Not Important, 2 = Slightly Important, 3 = Moderately Important, 4 = Very Important, 5 = Extremely Important. For simplicity in the above table, scores of 1 and 2 were termed "Low," scores of 3 were termed "Mod," and scores of 4 and 5 were termed "High".

and Chi-square, were then performed to test for significant differences. Differences found between factors on other variables served to further define these visitor market segments.

BENEFIT CHARACTERISTICS OF VISITOR SEGMENTS

Segment #1 was called "Highly Interested and Social" because the visitors comprising this segment were characterized by high average scores on all four of the benefit (motive) factors. All four were, on the average, either very important or extremely important reasons for coming to the LBJ National and State Historical Parks.

Segment #2 was called "Low Interest" because the visitors comprising this segment were characterized by relatively low average scores on all four of the benefit (motive) factors. Social and nature reasons were of low importance on the average, learning about LBJ was only a moderately important reason, and learning about the Germans was not important at all to these park visitors.

Segment #3 was called "Moderate General Interest" because the visitors comprising this segment attached only moderate importance to three out of the four benefit (motive) factors. Social and nature reasons were of low importance on the average, learning about LBJ was only a moderately important reason, and learning about the Germans was not important at all to these park visitors.

Segment #4 was called "Nature First" because that factor was given an average rating of very important as a reason for visiting the parks. Social reasons and learning about LBJ were only moderately important to these visitors, and learning about the Germans was of low importance to them.

Segment #5 was called "High General Interest" because all except social reasons for visiting the parks were, on the average, rated very important for coming. Social reasons were only of moderate importance.

Segment #6 was called "High LBJ Interest" because, on the average, these visitors rated learning about LBJ as very important, and the other three factors were only of moderate importance as reasons for visiting the parks.

DESCRIPTIVE AND BEHAVIORAL CHARACTERISTICS OF VISITOR SEGMENTS

Tables 15 describes statistically significant descriptive differences between visitor segments. Table 16 describes significant differences between visitor segments in terms of various behavioral characteristics tabulated with the questionnaire. With this descriptive and behavioral information it is possible to further describe the benefit-based market segments.

Segment #1 differs from other segments with respect to several descriptive and behavioral characteristics of visitors. In addition to being "Highly Interested and Social", visitors in this segment can be characterized as having a significantly smaller proportion with a college education and a larger proportion who are from Texas as compared to segment three. Behaviorally, the proportion of segment #1 visitors who had visited this park site before was significantly higher than the proportion in segment #2. Visitors in segment #1 were also more likely to have visited the Boyhood home than were visitors in segment #5. They were also more likely to visit the park in the future than visitors in segments #2, #3, and #6. The proportion in segment #1 who would probably not visit in the future was significantly lower than in segments #2 and #3. Significantly more segment #1 visitors would be willing to make a reservation for a future ranch house tour, as compared to visitors in segments #2, #3, and #4.

Segment #2, the "Low Interest" segment, is characterized by having a significantly smaller proportion of visitors in this segment as compared to segments #3 and #4 who said they had visited this park previously. Also, a significantly smaller proportion of segment #2 visitors compared to segment

TABLE 15
CHARACTERISTICS OF VISITORS SAMPLED
BY MARKET SEGMENTS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Visitor Characteristics[1]	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Education[2]						
Less than High School	23%	12%	10%	14%	12%	12%
Completed High School (12-15 yrs.)	57%	55%	49%	54%	61%	53%
Completed College (16 + yrs.)	20%	33%	41%	32%	27%	35%
	100%	100%	100%	100%	100%	100%
State of Origin[3]						
Texas	74%	57%	57%	67%	67%	61%
Other States	26%	43%	43%	33%	33%	39%
	100%	100%	100%	100%	100%	100%

[1] Chi square tests and subsequent tests for statistical differences in proportions of visitors in different market segments were conducted for each variable. Results are footnoted below where significant differences between market segments were found.

[2] Chi square is 28.92; D.F. = 10; $p<.002$ Tests for differences in proportions within education categories indicated the proportion of visitors who completed college in Segment three was significantly higher than in Segment one.

[3] Chi square statistic is 15.28; D.F. = 5; $p<.01$. The proportion of visitors who were from Texas was significantly higher in Segment one than in Segment three.

TABLE 16
BEHAVIORAL CHARACTERISTICS OF VISITORS BY MARKET SEGMENTS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Behavioral Characteristics	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Have Previously Visited						
This park site[1]	41%	18%	33%	36%	31%	29%
LBJ Library in Austin	37%	32%	37%	39%	39%	36%
LBJ Boyhood Home[2]	66%	58%	50%	66%	47%	66%
Johnson Pioneer Settlement[3]	40%	27%	29%	40%	29%	43%
Likelihood of a Future visit to This Park[4]						
Probably will	67%	33%	41%	52%	52%	48%
Perhaps will	24%	30%	34%	27%	29%	30%
Probably will not	9%	37%	25%	21%	19%	22%
Willing to Make Reservation For Ranch House tour[5]						
Yes	80%	55%	58%	63%	70%	64%
No	20%	45%	42%	37%	30%	36%

[1] Chi square = 25.52; D.F. = 5; p<.0001. Proportions of park repeat visitors in market segments one and four were significantly higher than the proportion in Segment two.

[2] Chi square = 22.16; D.F. = 5; p<.0005. Proportions of Boyhood Home repeat visitors in market segments one four, and six were significantly higher than in Segment five.

[3] Chi square statistic is 17.83; D.F. = 5; p<.004. The proportion of Pioneer Settlement visitors in market Segment six was significantly higher than in Segment two.

[4] Chi square statistic is 54.05; D.F. = 10; p<.0001. The proportion of park visitors who will probably visit again was significanlty higher in Segment one than in Segments two, three and six. The proportions in Segments four and five were significantly higher than the proportions in Segment two.
The proportion of park visitors who probably will not visit again was significantly lower in segment one than in Segments two and three. The proportion was significantly higher in Segment two than in Segments one, four, five, and six.

[5] Chi square statistic is 25.35; D.F. = 5; p<.0001. The proportion of visitors willing to make ranch house tour reservations was significantly higher in Segment one than in Segments two, three and four.

#6 visitors had visited the Johnson Pioneer settlement. A significantly smaller proportion in segment #2 as compared to segments #1, #4, and #5, said they probably will visit this park again in the future. The proportion of visitors in segment #2 who probably will not visit the park again was significantly higher than in segments #1, #4, #5, and #6. A significantly smaller proportion of visitors from segment #2, as compared to segment #1, said they would be willing to make a reservation for a future ranch house tour.

Segment #3, the "Moderate General Interest" segment, had a significantly higher proportion of college graduates and a significantly smaller proportion of visitors from Texas compared to segment #1. The proportion of segment #3 visitors who probably will visit the park again in the future was significantly lower than the proportion in segment #1. Conversely, the proportion of segment #3 visitors who probably will not visit the park again was significantly higher than the proportion for segment #1. Segment #3 also had a smaller proportion of visitors who would be willing to make a reservation for a future ranch house tour than did segment #1.

Segment #4 is the "Nature First" segment. It differs from segment #2 by having a larger proportion of visitors who had visited the park site previously. It also differs from segments #2 in having a larger proportion who probably will visit the park again in the future and a smaller proportion who probably will not. Segment #4 differs from segment #5 in having a larger proportion who had previously visited the Boyhood Home. Segment #4 had proportionately fewer visitors who would be willing to make a reservation for a ranch house tour compared to segment #1.

Segment #5, "High General Interest", was characterized by a smaller proportion of visitors than segments #1, #4, and #6 who had visited the Boyhood home. Segment #5 also had proportionately more visitors than segment

#2 who probably will visit the park in the future, and proportionately fewer who will not.

Segment #6 was the "High LBJ Interest" segment. A significantly larger proportion of visitors in this segment had visited the boyhood home as compared to segment #5. A larger proportion of segment #6 visitors as compared to segment #2 had also been to the pioneer settlement. Proportionately fewer segments #2, #3 and #6 visitors probably will visit the park again as compared to segment #1.

Differences among market segments are apparent when they are compared with respect to average ratings of present program expectations and preferences, present program quality ratings, and preferences for future program offerings. These comparisons are discussed below.

EXPECTATIONS FOR PRESENT PROGRAMS

Visitors comprising segment #1 ("Highly Interested and Social") had higher expectations than visitors in one or more other segments for six of the 12 program components listed in the first question of the questionnaire (see Table 17). These were program offerings of authentic historical type items for purchase, tours/talks led by a ranger, nature trail, people wearing historical looking clothes who give demonstrations, wild animal viewing area, and cattle and farm animal viewing area.

Segment #2 visitors ("Low Interest") did not have higher expectations than visitors in any of the other segments for any of the 12 program components included in the first question of the questionnaire.

Segment #3 visitors ("Moderate General Interest") also did not have significantly higher expectations than visitors in any of the other segments for any one of the 12 program components we asked about.

TABLE 17
EXPECTATIONS FOR PRESENT PROGRAM OFFERINGS
BY MARKET SEGMENTS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Present Offerings	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Exhibits inside visitor center	86%	92%	87%	87%	90%	92%
Information desk attended by ranger	90%	82%	84%	88%	85%	87%
Park literature given out at information desk	93%	90%	88%	95%	93%	96%
Historical literature to purchase	73%	67%	81%	74%	81%	79%
Authentic historical type items for purchase[1]	63%	44%	44%	46%	57%	43%
Bus tour of LBJ Ranch	86%	79%	79%	89%	82%	81%
Other tours/talks led by ranger[2]	80%	63%	60%	71%	65%	72%
Motion picture of LBJ Ranch	63%	50%	43%	57%	61%	50%
Nature trail[3]	72%	46%	50%	69%	66%	51%
People wearing historical looking clothes who give demonstrations[4]	44%	16%	16%	25%	28%	24%
Wild animal viewing area[5]	73%	37%	45%	56%	56%	45%
Cattle and farm animal viewing area[6]	83%	61%	56%	77%	74%	78%

[1] Chi square statistic was 20.62; D.F. = 5; p<.001. The proportion of visitors expecting to be able to purchase historical type items was significantly higher in Segment one than in Segments two and six.

[2] Chi square statistic was 17.16; D.F. = 5; p<.01. The proportion of visitors expecting other tours and talks led by a ranger was significantly higher in Segment one than in segments two and three.

[3] Chi square statistic was 42.47; D.F. = 5; p<.0001. The proportion of visitors expecting a nature trail was significantly higher in Segment one than in egments two, three, and six. It was also higher in Segment four than in Segments two, three, and six. The proportion in Segment five was also higher than the proportion in Segment two.

[4] Chi square statistic was 40.22; D.F. = 5; p<.0001. The proportion of visitors expecting demonstrations by people wearing historical looking clothes was significantly higher in Segment one than in Segments two, three, four, and six.

[5] Chi square statistic was 51.90; D.F. = 5; p<.0001. The proportion of visitors expecting a wild animal viewing area was higher in Segment one than in Segments two, three, and six. It was also higher in Segments four and five than in Segment two.

[6] Chi square statistic was 42.80; D.F. = 5; p<.0001. The proportion of visitors expecting a cattle and farm animal viewing area was significantly higher in Segments one, four, and six than in Segments two and three.

Segment #4 visitors ("Nature First") had significantly higher expectations than visitors in one or more of the other segments for three program components: nature trail, wild animal viewing area, and cattle and farm animal viewing area.

Segment #5 visitors ("High General Interest") had significantly higher expectations than visitors in one or more of the other segments for two program components: nature trail and a wild animal viewing area.

Segment #6 visitors ("High LBJ Interest") had significantly higher expectations for seeing cattle and the farm animal viewing area than did visitors in segments #2 and #3.

PROGRAM PREFERENCE CHARACTERISTICS OF SEGMENTS

Table 18 clearly shows the difference in program preferences for different segments. Segment #1 visitors have a stronger preference than segment #2 and #3 visitors, and in most cases stronger than visitors in segments #4, #5, and #6 as well, for all 12 program components listed in the first question of the questionnaire. Visitors in segments #5 and #6 also have a stronger preference of all 12 program components than do visitors in segments #2 and #3. Visitors in segment #4 have a stronger preference in 10 of the 12 program components than do visitors in segments #2 and #3. The fact that segments #2 and #3 have consistently lower preferences for existing program components is consistent with the benefit (motive) profiles used to define these segments. Their segment names are consistent with these preference results, "Low Interest" and "Moderate General Interest."

PROGRAM QUALITY RATINGS BY MARKET SEGMENTS

Table 19 shows that segment #1 visitors ("Highly Interested and Social") consistently rated 17 of the 19 program components and opportunities higher in

TABLE 18
IMPORTANCE MEANS FOR PRESENT PROGRAM OFFERINGS
BY MARKET SEGMENTS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS *

Present Offerings	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Exhibits inside visitor center	(4.2)	3.5	3.3	3.7	(3.8)	(3.9)
Information desk attended by ranger	(4.5)	3.5	3.4	(3.9)	(4.0)	(4.0)
Park literature given out at information desk	(4.2)	3.6	3.6	(4.0)	(3.9)	(3.9)
Historical literature for purchase	(3.4)	2.5	2.8	(2.9)	(3.2)	(3.0)
Authentic historical type items for purchase	(3.3)	2.1	2.3	2.4	(2.6)	(2.6)
Bus tour of LBJ Ranch	(4.7)	4.0	4.0	(4.4)	(4.4)	(4.5)
Other tours/talks led by a ranger	(4.3)	3.3	3.2	(3.7)	(3.8)	(3.9)
Motion picture of LBJ Ranch	(4.2)	3.0	3.0	(3.4)	(3.6)	(3.5)
Nature trail	(4.2)	2.5	2.8	(3.5)	(3.5)	(3.0)
People wearing historical looking clothing who give demonstrations	(3.6)	2.1	2.4	(2.7)	(2.9)	(2.7)
Wild animal viewing area	(4.3)	2.6	2.8	(3.6)	(3.7)	(3.1)
Cattle and farm animal viewing area	(4.4)	2.8	3.0	(3.5)	(3.7)	(3.3)

*Circled means are significantly larger than means for one or more other segments. Statistically significant differences were determined using one way analysis of variance and Scheffe's test; $p<.05$.

TABLE 19
IMPORTANCE MEANS FOR PRESENT PROGRAM QUALITY RATINGS
BY MARKET SEGMENTS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS *

Present Programs and Opportunities	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
The exhibits in the visitor center	(4.6)	4.4	4.4	4.5	4.5	4.5
Opportunities to learn about LBJ ranch operations	(4.6)	4.3	4.2	4.3	4.4	4.5
The helpfulness of the ranger at the information desk	(4.7)	4.4	4.4	4.5	4.6	4.5
Opportunities to learn how LBJ lived when he was here	(4.7)	4.4	4.3	4.5	(4.6)	4.5
Park literature available at information desk	(4.4)	4.1	4.1	4.2	(4.4)	4.3
Opportunities to learn about political events that happened here	(4.2)	3.6	3.7	3.9	3.9	3.8
Historical literature available	(4.3)	3.8	3.8	4.0	4.1	4.0
Opportunities to find out about things here	(4.5)	4.1	4.0	4.2	4.2	4.3
Historical type items for purchase	(4.0)	3.4	3.5	3.7	3.7	3.6
Opportunities to learn about Germans and other people who lived here	(3.9)	3.4	(3.8)	3.5	3.7	3.5
Bus tour of LBJ ranch	4.8	4.7	4.7	4.8	4.8	4.8
Quality of other tour(s)/talk(s) led by ranger	4.6	4.4	4.5	4.4	4.5	4.5
Opportunities to take in the natural surroundings	(4.7)	4.3	4.4	4.5	4.5	4.5
Motion picture of LBJ ranch	(4.6)	4.1	4.1	4.3	4.3	4.3
Nature trail walk	(4.6)	4.1	4.2	4.3	4.4	4.1
People wearing historical looking clothing at Sauer-Beckman Farm	(4.4)	3.8	4.1	4.1	4.3	4.1
Wild animal viewing area	(4.3)	3.8	3.8	3.9	4.1	4.0
Opportunities to view cattle and farm animals	(4.5)	4.1	4.1	4.2	4.3	4.3
Opportunities to learn more about nature	(4.4)	3.7	3.7	(4.0)	(4.0)	3.8

*Circled means are significantly larger than means for one or more other segments. Statistically significant differences were determined using one way analysis of variance and Scheffe's test; $p<.05$.

quality than did visitors in most of the other segments. Again none of the ratings by segment #2 ("Low Interest") visitors were significantly higher than for any of the other segments for any of the 19 items.

Segment #3 visitors ("Moderate General Interest") rated the opportunity to learn about Germans and other people who lived here higher than did some other visitors. Both segment #4 visitors ("Nature First") and segment #5 visitors ("High General Interest") rated opportunities to learn more about nature significantly higher than did visitors in segments #2, #3, and #4.

FUTURE PROGRAM REFERENCES BY MARKET SEGMENTS

Table 20 shows average visitor future program preferences for each market segment. Segment #1 visitors ("Highly Interested and Social") had significantly higher future program preferences than all other segments for bicycle access to the LBJ Ranch, for Park tour bus access to the LBJ Ranch, for personally led tours of major points of interest, for self-guided tours with signs, for an updated motion picture "tour" of the ranch, for a ranger narrated slide program, for a ranger led nature walk from the state park visitor center, for a ranger led tour of the ranch grounds and landscaping, and for authentic historical reproductions for purchase.

Table 20 shows that segment #4 ("Nature First") had significantly higher preference than segment #2 and #3 ("Low" and "Moderate" interest) for a ranger led nature walk from the state park visitor center. This was likewise true of segment #5 visitors ("High General Interest"). Segment #5 visitors also had significantly higher preferences than visitors in three other segments for a ranger led tour of ranch grounds and landscaping, and for authentic historical reproductions for purchase. Segment #5 visitors ("High LBJ Interest") had

TABLE 20
MEAN RANKINGS FOR FUTURE PROGRAMS FOR ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Future Programs	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Private motor vehicle access to LBJ Ranch	2.7	2.3	2.6	2.5	2.4	2.2
On foot access to LBJ Ranch	2.9	2.7	2.7	2.6	2.6	2.7
Bicycle access to LBJ Ranch	(2.6)	2.0	2.2	2.2	1.9	2.1
Park tour bus (tram)access to LBJ Ranch	(4.4)	4.0	3.9	4.2	4.2	4.3
Self-guided tour in your own private vehicle of the LBJ Ranch	2.6	2.3	2.5	2.4	2.3	2.2
Park led bus tour with 5 minute intervals	3.1	2.8	3.0	2.9	2.8	2.8
Park led bus tour with 15-30 minute intervals	3.2	3.2	3.2	3.2	3.5	3.5
Park led bus tour with 30-40 minute intervals	2.4	2.1	2.3	2.2	2.4	2.2
Personally led tours of major points of interest	(3.9)	3.1	3.1	3.3	3.5	3.5
Self-fuided tours with stationed rangers	3.5	3.1	3.1	3.1	3.3	2.9
Self-guided tours with tape recorded messages	3.1	2.7	2.8	2.7	2.8	2.7
Self-guided tours with park guide book or brochure	2.9	2.5	2.7	2.6	2.6	2.5
Self-guided tours with signs	(3.2)	2.6	2.8	2.7	2.8	2.7
Updated motion picture "tour" or ranch	(3.7)	3.2	3.2	3.3	3.4	3.4
Ranger narrated slide program	(3.4)	2.6	2.8	3.1	2.9	2.9
Ranger led nature walk from state park visitor center	(3.6)	2.6	2.5	(3.1)	(3.0)	2.8
Ranger led tour of ranch grounds and landscaping	(3.7)	2.8	2.7	3.2	(3.3)	3.1
Authentic historical reproductions for purchase	(3.0)	2.0	2.0	2.3	(2.6)	(2.6)

*Circled means are significantly larger than means for one or more other segments. Statistically significant differences were determined using one way analysis of variance and Scheffe's test; $p<.05$.

significantly higher preferences than three of the other segments for authentic historical reproductions for purchase.

Table 21 shows preference differences among market segments for future access to different parts of the ranch house complex. Here it is interesting to note that the strength of preference for access to different parts of the ranch house is just as strong for segment #6 visitors as for segment #1 visitors. Recall that segment #1 visitor preferences were consistently higher than most other segments in each of the preceding four tables. In fact, segment #6 visitors ("High LBJ Interest") have significantly higher preferences than two or more other segments for all of the ranch house parts listed in the questionnaire. Segment #1 visitors ("Highly Interested and Social") have significantly higher preferences than two or more other segments on only seven of the eight ranch house components listed. Again visitors in segments #2 and #3 ("Low" and "Moderate" Interest) did not have significantly higher preferences than visitors in any of the other segments to see any of the ranch house components. Both segment #4 ("Nature First") and segment #5 ("High General Interest") visitors had significantly higher preferences than segment #2 and #3 for seeing the airplane hanger. They did not differ from segments #2 and #3 with respect to preferences for the other ranch house components.

PLANNING AND MANAGEMENT IMPLICATIONS

The planning and management implications of the results can be discussed in reference to the objectives of the study. The first objective called for a description of the visitation market for LBJ National and State Historical Parks. Thus we will first discuss the planning and management implications with respect to the market segmentation analysis. Planning and

TABLE 21
IMPORTANCE MEANS FOR FUTURE
ACCESS TO DIFFERENT PARTS OF THE RANCH HOUSE COMPLEX
BY MARKET SEGMENTS FOR THE ENTIRE YEAR
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS*

Ranch House Complex	Segment 1	Segment 2	Segment 3	Segment 4	Segment 5	Segment 6
Airplane hanger	(3.0)	2.2	2.3	(2.7)	(2.7)	(2.7)
Secret Service command post	(3.5)	2.8	2.9	3.1	3.3	(3.3)
Working office	3.7	3.3	3.3	3.5	3.7	(3.9)
Living room	(3.9)	3.5	3.5	3.6	3.8	(4.0)
Sitting room	(3.9)	3.4	3.4	3.5	3.8	(3.9)
Kitchen	(3.9)	3.3	3.4	3.5	3.7	(3.9)
Bedrooms	(3.8)	3.2	3.3	3.4	3.6	(3.8)
Guest rooms	(3.8)	3.3	3.3	3.4	3.6	(3.8)

*Circled means are significantly larger than means for one or more other segments. Statistically significant differences were determined using one way analysis of variance and Scheffe's test; $p<.05$.

management implications will then be discussed with respect to objective Nos. 2, 3, 4, and 5, in that order.

PRESENT VISITOR MARKET IMPLICATIONS

Objective No. 1 of the study was to describe the present visitation market and compare different market segments of visitation to the LBJ National and State historical parks. When age characteristics of the overall sample were compared to census statistics for Texas and the rest of the nation it was apparent that visitors 17 years of age and under were underrepresented during the fall, winter and spring visitor seasons. This was unexpected because these are the times of the year when more Texas school groups would normally be expected to visit the LBJ National and State Historical Parks. The implication is that plans could be made to make Texas schools more aware of the educational opportunities available at this historical park site.

Comparison of the overall sample statistics to census statistics for Texas and the rest of the nation also showed interesting seasonal differences in the proportion of park visitors 60 years of age or older, as compared to state and national age statistics. This age group was underrepresented during the summer visitor season and overrepresented in the fall, winter, and spring seasons. Perhaps providing more air conditioned facilities would attract greater numbers of senior citizens during the hot Texas summer.

Table 22 shows the proportion of total park visitation contributed by each of the six market segments defined in this study, both for the year as a whole and for each of the visitor seasons. The highest proportion of visitors were in the "Low Interest" segment, 24% for the year and reaching 29% of total visitation in the winter season. As the name implies ("Low Interest"), these visitors are not particularly interested in what this Historical park site has

TABLE 22
MARKET SEGMENT SIZE DIFFERENCES BY SEASON
AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Segment	Total Sample %	Total Sample (n)	Summer %	Summer (n)	Fall %	Fall (n)	Winter %	Winter (n)	Spring %	Spring (n)
#1 Highly Interested and Social	13%	(135)	15%	(37)	11%	(29)	10%	(18)	14%	(51)
#2 Low Interest	24%	(249)	23%	(56)	26%	(68)	29%	(50)	20%	(75)
#3 Moderate General Interest	12%	(128)	11%	(26)	11%	(29)	14%	(25)	13%	(48)
#4 Nature First	19%	(199)	17%	(42)	19%	(48)	14%	(25)	23%	(84)
#5 High General Interest	15%	(159)	13%	(33)	18%	(46)	15%	(26)	15%	(54)
#6 High LBJ Interest	17%	(180)	21%	(52)	15%	(40)	18%	(31)	15%	(57)
	100%	(1,050)	100%	(246)	100%	(260)	100%	(175)	100%	(369)

to offer. They are also much less likely to be repeat visitors than is the case for visitors comprising most other market segments.

The market segment named "Highly Interested and Social" was the segment of park visitation most highly motivated, in all respects, to come to this Historical park site. Visitors in this segment had high expectations and preferences for most of the twelve interpretive program components listed in the first question of our questionnaire. They also gave high average quality ratings to most of these program components listed in the first question of our questionnaire.

Interpretive planners and park managers may want to cultivate the apparently highly supportive constituency which they have in this visitor segment. To do this it will be necessary to refer back to a previous section and review the descriptive and behavioral characteristics of this segment.

The "Moderate General Interest" segment of visitors was characterized by the highest proportion of college graduates as compared to the other segments. Finding historical literature for purchase at the parks is particularly important to visitors in this segment.

The "Nature First" segment was the second largest visitor segment, comprising 19% of annual visitation and reaching a high of 23% of visitation in the spring season. The segment is important to consider in park planning and management decisions, because in spring it appears to be an especially important visitor constituency for these parks--although in a very special way. They have higher expectations than visitors in several other segments only for the following program components: nature trail, people wearing historical looking clothes who give demonstrations, wild animal viewing area, and cattle and farm animal viewing area. The behavior of visitors in this segment demonstrates that they also place more importance on learning about LBJ than visitors in some other segments. Proportionately more of them had visited the

Boyhood Home and had previously visited this park site. Interpretive planning for this "Nature First" market segment should perhaps attempt to make the program elements they expect and the Johnson City components of the National Historical Park more accessible to them.

The "High General Interest" segment is similar to the "Highly Interested and Social" segment in terms of the motivations for coming to the parks, with the exception of social motives. They are highly motivated to learn about LBJ as well as to learn about nature and about the German settlers in the area. However, they are only moderately socially motivated and planning for this visitor group should take this into consideration. Planning for this visitor segment should also take note of high expectations for a nature trail, and for a wild animal viewing area.

The "High LBJ Interest Segment" was third largest in size for entire year, but second largest for summer visitation. In the summer visitor season this segment comprised 21% of total visitation, a greater proportion than any other segment except for "Low Interest". As their name implies, the most important motive these visitors had for coming to the parks was to learn about LBJ. Their behavior in terms of visiting the Johnson City components of the National Historical Park substantiates this. Proportionately more of these visitors had also visited the Boyhood Home and the Pioneer Settlement as compared to market segments five and two, respectively. This segment had stronger preferences for access to all components of the ranch house complex than did visitors in several other segments. The implication is that these visitors could react strongly if not allowed to visit the ranch house, particularly in the summer. Interpretive planners should take note of this.

VISITOR EXPECTATION/PREFERENCE IMPLICATIONS

Objective No. 2 of the study was to identify visitors' information expectations and preferences. Table Nos. 6 and 7 present this information. Of the 12 present program elements included in the first question of the questionnaire, four of them rank highest in terms of both visitor preferences and expectations. These are the bus tour of the ranch, park literature at the information desk, the information desk attended by a ranger, and the exhibits in the visitor center. The implication is that these four present program elements should be retained, and possibly expanded in future planning for interpretive services by the state and national historical parks.

The top ranking future program preference was for bus (tram) access to the LBJ Ranch. The preference ranking second most important was for personally led tours of major points of interest. This is what is currently done in conjunction with different stops on the bus tour, and the implication is that it should be continued in the future. Tying for third place ranking with motion picture tours of the ranch was a qualification of the bus tour preference. This was a preference for scheduling the tours at 15 to 30 minute intervals. This compares to a tenth place ranking for the option of a bus tour with 30 to 40 minutes interval scheduling. The implication of all this is that bus tours should be continued in the future, and every possible effort should be made to provide the preferred shorter scheduling intervals.

The third highest preference mean for future programs was for an updated motion picture "tour" of the ranch. The implication is that this action would be well received by visitors to the parks.

Preference mean rankings for access to different parts of the ranch house complex, in the event it is opened to the public, indicate that visitors consider it very important to see the living room, the sitting room, the

kitchen, the working office, the guest rooms, and the bedrooms. They consider it only moderately important to be able to see the secret service command post and the airplane hanger. The implication is that the six more preferred parts of the ranch house should be given priority consideration in planning for future visitor access. However, the level of preference expressed for the airplane hanger in this study may be misleading. Perhaps a more descriptive term could be used to convey the fact that this was really used by LBJ as more than an airplane hanger; a term like VIP hanger might be more appropriate.

ACCEPTABILITY OF FUTURE PROGRAM ALTERNATIVES

Objective No. 4 called for an exploration of the acceptability to visitors of future (interpretive) program alternatives for the LBJ National and State Historical Parks. Results of this study showed that bicycle and personal motor vehicle access to the LBJ Ranch are not preferred alternatives to the present bus (tram) tour (see Table 8). Self-guided tours with stationed rangers would be a fairly acceptable alternative to in-person tours where the ranger accompanies visitors. This type of self-guided tour alternative ranks fourth among future program preference means, and it ranks third for winter visitors. The alternatives of self-guided tours with recorded messages, self-guided tours with park guide book or brochure, and self-guided tours with signs would all be less acceptable than self-guided tours with a stationed ranger (see Table 8).

EFFICIENCY AND EFFECTIVENESS IMPLICATIONS

Objective No. 3 of this study was to identify ways to make present LBJ National and State Historical Park Interpretation program efforts more efficient. Objective No. 5 was to assess how effective visitors perceive the LBJ National and State Historical Parks are in meeting visitors' present

interpretation program expectations. Both of these objectives were addressed by importance/performance analysis and are discussed below.

Taking objective No. 5 first, the importance/performance analysis results showed that, rounding to the nearest whole number, the parks are doing an effective job (good or excellent) in providing present programs opportunities and opportunities for satisfying educational reasons for coming to the park. The management implication is not to make any changes in the way the present programs and opportunities are being provided.

With respect to objective No. 3, the importance/performance analysis revealed that somewhat greater efficiency might be attained by cutting back in the resources invested in providing historical literature for purchase, authentic historical items for purchase, living history programs, opportunities to learn about the Germans and others who lived here, and opportunities to learn about nature. The obvious management implication is to make such cutbacks. However, to be realistic, managers must also take into consideration the fact that for certain visitor market segments, each of these types of program offerings and opportunities could also plot in the "Keep Up the Good Work" quadrant of the importance/performance grid. For those particular market segments the parks are doing an efficient job in providing these things and no cutback would be warranted. For example, if policy is to disregard the lower preferences of the "Low Interest" visitor segment and concentrate on providing for what visitors such as those in the "Nature First" segment prefer, the implication would be not to cut back on opportunities to learn about nature.

IMPLICATIONS FOR TARGET MARKETING

The implications resulting from the market segmentation analysis relative to the interpretive plan for the LBJ National and State Historical Parks depend upon the marketing strategy adopted by park planners. A strategy often used is to "target" one or more market segments. More attention is then paid to the characteristics and preferences of visitors comprising other segments.

For example, suppose that a planning objective is to provide future program options which are in keeping with the purposes of this historical park and with the motivations of visitors. It is evident from Table 14 that visitors comprising market segments #2 and #3 did not, on average, rate any of the four benefit factors "High." Because they were not highly motivated to visit the park for any of these reasons it could be argued that these two market segments should not be targeted in the interpretive plan.

In contrast, visitors comprising segment #1 (Highly Interested and Social) probably should be targeted because they, on average, rated all four types of benefits "High" as reasons for their visit. However, this segment only constituted 13% of the sample annual visitation. Therefore, a decision might be made to also target additional segments which, on average, at least rated the "LBJ Learning" benefit "High" as a reason for the park visit. This would be desirable because learning about LBJ is a primary purpose of interpretation at this historical park.

The hypothetical marketing strategy suggested above would probably result in targeting the following three market segments: segment #1 (Highly Interested and Social), segment #5 (High General Interest), and segment #6 (High LBJ Interest). Table 23 summarizes and compares the visitation motives, segment sizes, selected visitor characteristics, and selected future program preferences of visitors comprising segments #1, #5, and #6. Only future

TABLE 23
SUMMARY TABLE OF MOTIVATIONS, SELECTED CHARACTERISTICS, AND SELECTED FUTURE PROGRAM PREFERENCES OF THREE MARKET SEGMENTS WHICH COULD BE TARGETED FOR INTERPRETIVE PLANNING PURPOSES AT LYNDON B. JOHNSON STATE AND NATIONAL HISTORICAL PARKS

Market Segment Characteristics	Segment #1 Highly Interested and Social	Segment #5 High General Interest	Segment #6 High LBJ Interest
Visitation Motivations			
Learning about LBJ	High	High	High
Learning about the German Settlers	High	High	Moderate
Learning about and Experiencing Nature	High	High	Moderate
Social and Personal Motives	High	Moderate	Moderate
Segment Size			
Percentage of Annual Visitation	13% of sample	15% of sample	17% of sample
Descriptive Characteristics			
Residence	74% Texans	67% Texans	61% Texans
Education	20% College Grads.	27% College Grads.	35% College Grads
Behavioral Characteristics			
Previously visited LBJ Historical Park	41% Yes	31% Yes	29% Yes
Likely to visit again in the future	67% Yes	52% Yes	48% Yes
Would make Ranch House Tour reservations	80% Yes	70% Yes	64% Yes

Table 23, continued.

Market Segment Characteristics	Segment #1 Highly Interested and Social	Segment #5 High General Interest	Segment #6 High LBJ Interest
Future Program Preferences			
Tour Bus Access to LBJ Ranch	High	High	High
Personally Led Tours of Major Points of Interest	High	High	High
Updated Motion Picture Tour of Ranch	High	Moderate	Moderate
Ranger Led Tour of Ranch Grounds and Landscaping	High	Moderate	Moderate
Ranger Led nature Walk from State Park Visitor Center	High	Moderate	Moderate
Ranger Narrated Slide Program	Moderate	Moderate	Moderate
Self Guided Tours with Signs	Moderate	Moderate	Moderate
Authentic Historical Reproductions for Purchase	Moderate	Moderate	Moderate
Bicycle Access to LBJ Ranch	Moderate	Low	Low
Future Ranch House Access Preferences			
Access to Living Room	High	High	High
Access to Sitting Room	High	High	High
Access to Kitchen	High	High	High
Access to Bedrooms	High	High	High
Access to Guest Rooms	High	High	High
Access to Working Office	High	High	High
Access to Secret Service Command Post	High	Moderate	Moderate
Access to Airplane Hanger	Moderate	Moderate	Moderate

program preferences are included in Table 23 because it is assumed that present program expectations, preferences, and quality ratings would not be of interest for a future oriented marketing strategy. If they were, the additional information could easily be summarized from the other tables and added to Table 23. The reader should also note that only those visitor characteristics and future preferences were included in Table 23 for which significant statistical differences were found between two or more market segments. The basic idea of targeting specific market segments implies finding and interpreting differences between these and other segments.

If planners were to target the above three segments, they would be concentrating upon the characteristics and future program preferences of 45% of the present annual visitation. This is a sizable proportion of present visitation, and it is likely that it would increase in size in the future if planners were to effectively provide for their preferences. For a minimum level of future programming, only those program components which were, on average, rated high by all visitors in all three segments would be provided. This would be tour bus access to the ranch, personally led tours of major points of interest, and access to six out of eight parts of the ranch house complex.

Planners could also choose to target other market segments depending upon what they considered to be the appropriate marketing strategy for their planning objectives. A summary table like Table 23 can be prepared for any one segment or combination of market segments. The necessary information is all included in other tables in this report.

Planners could also choose to target different segments for different seasons of the year. For example, the "Nature First" segment constitutes 23% of total visitation when wildflowers bloom in the park, and it could conceivably be targeted as most important for that season. In winter the "low

interest" segment reaches almost one third of total visitation (29%). It could be targeted then and/or at other times of the year if an interpretative planning objective was to stimulate more interest in the park among this large visitor cohort.

It should be kept in mind that this market segmentation study was conducted using only present visitation to the park. If application of these results in the interpretive plan assumes these data are a good approximation of potential future visitation, this may not be the case. It is likely, and probably desirable, that the composition of future visitation to this historical park site will change in some ways. However, it is not possible at this point to determine what changes would naturally occur, apart from changes which will likely occur due to recommendations made by planners and implemented by park managers as a result of this study.

OTHER PLANNING AND MANAGEMENT IMPLICATIONS

The major planning and management implications relating to study objectives have been summarized above. However, the authors acknowledge that park planners and managers could choose to interpret some study results differently. Data collected in a study such as this are always subject to more than one interpretation. In addition, unsolicited visitor comments were tabulated and included verbatim in the final study report (Mills and Wegner 1985). Often one such comment received from one visitor can have major implications. However, since these data are outside of the structured framework of the study only the planners and park managers who read the complete study report (Mills and Wegner 1985) can determine the implications of these comments.

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APPENDIX A

SURVEY QUESTIONNAIRE

PART I: ADMINISTERED BEFORE PARK VISIT

5. What is the Zip Code of your permanent place of residence? _____

6. Where did your trip/tour originate? City_____State_____

7. What was the last year of school you completed? (CIRCLE ONE NUMBER).

Grade School	High School	College/Technical	Graduate School
3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18 19 20 21+

8. Which of the following best describes the type of group you came here with (CIRCLE) the one number that best applies.)

1. You alone

2. Family

3. Friends

4. Family and Friends

5a. Organized Packaged Tour

5b. Convention Tour

5c. School Group

5d. Other Type of Tour

6. Other (please specify) _____

9. For each of the following age categories, please write the number of males and females in the group you are here with (including yourself).

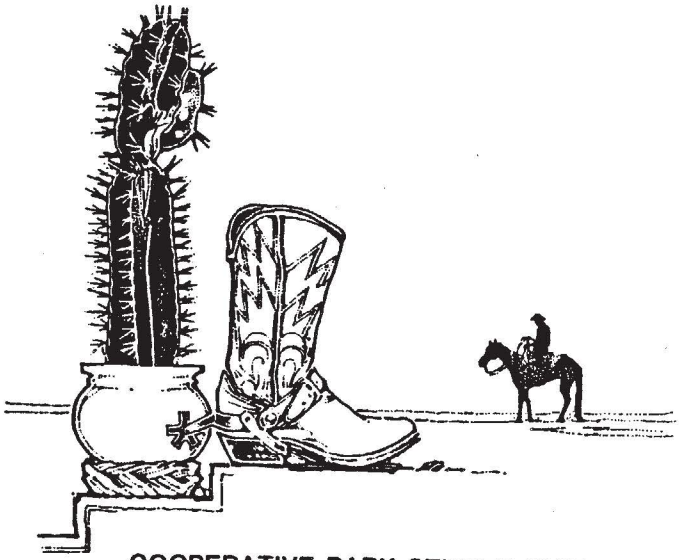
Number		Number	
_____	Males 12 years or less	_____	Females 12 years or less
_____	Males 13 to 24 years	_____	Females 13 to 24 years
_____	Males 25 to 36 years	_____	Females 25 to 36 years
_____	Males 37 to 48 years	_____	Females 37 to 48 years
_____	Males 49 to 60 years	_____	Females 49 to 60 years
_____	Males over 60 years	_____	Females over 60 years

10. Please Circle above the category in which you have included yourself.

Thank you for your help. Your input is necessary for planning for visitors like yourself. Please take the numbered sticker which matches the number on this survey. Please return to this table before you leave, so that we may get your evaluation of the services and facilities provided and your suggestions for future changes. Thank you again.

LBJ HISTORICAL PARK

s · u · r · v · e · y



COOPERATIVE PARK STUDIES UNIT
DEPARTMENT OF RECREATION AND PARKS
TEXAS A&M UNIVERSITY

First we would like to learn what facilities and services provided here are important to you.

1. This question has two parts. First, please circle "yes" or "no" to indicate whether or not you expected that each of the following services and facilities would be found here. Second, please circle a number from 1 to 5 indicating how important you feel it is for your visit here that each of these services and facilities are provided for you.

	Expected This?		HOW IMPORTANT IS THIS? (Not important / Slightly important / Moderately important / Very important / Extremely important)				
1. Exhibits inside visitor center	Yes	No	1	2	3	4	5
2. Information desk attended by ranger	Yes	No	1	2	3	4	5
3. Park literature given out at information desk	Yes	No	1	2	3	4	5
4. Historical literature for purchase	Yes	No	1	2	3	4	5
5. Authentic historical type items for purchase	Yes	No	1	2	3	4	5
6. Bus tour of LBJ Ranch	Yes	No	1	2	3	4	5
7. Other Tours/Talks led by a ranger	Yes	No	1	2	3	4	5
8. Motion picture of LBJ ranch	Yes	No	1	2	3	4	5
9. Nature trail	Yes	No	1	2	3	4	5
10. People wearing historical looking clothing who give demonstrations	Yes	No	1	2	3	4	5
11. Wild animal viewing area (deer, buffalo)	Yes	No	1	2	3	4	5
12. Cattle and farm animal viewing area	Yes	No	1	2	3	4	5

2. Did you expect to have automobile access to the Johnson Ranch? CIRCLE.

Yes No

3. Was there anything else you expected to find here that was not in the above list? (CIRCLE)

Yes No

If Yes, what? _____

_____

Now we would like to ask you some questions about your reasons for coming here to visit the LBJ State and National Historical Parks.

4. The following is a list of reasons visitors may have for coming here. On a scale of 1 to 5, please CIRCLE the number that indicates how important each reason is for your visit here.

	Not important	Slightly important	Moderately important	Very important	Extremely important
1. To find out about things here.	1	2	3	4	5
2. To learn how LBJ lived when he was here.	1	2	3	4	5
3. To learn about the political events that happened here.	1	2	3	4	5
4. To learn about the LBJ Ranch operations	1	2	3	4	5
5. To learn about the Germans and other people who lived here	1	2	3	4	5
6. To learn about the German farm operation	1	2	3	4	5
7. To learn more about nature	1	2	3	4	5
8. To learn about the plants of the area	1	2	3	4	5
9. To learn about the wild animals of the area	1	2	3	4	5
10. So I could take in the natural surroundings	1	2	3	4	5
11. So the family could spend some time together	1	2	3	4	5
12. To help others learn about things here	1	2	3	4	5
13. So I could do things with my companions	1	2	3	4	5
14. It would be a chance to meet new people	1	2	3	4	5
15. Because of personal spiritual values	1	2	3	4	5
16. To gain an experience I can look back on	1	2	3	4	5
17. To help release or reduce some built up tension	1	2	3	4	5
18. Because I thought the people here would be considerate	1	2	3	4	5

On the next page we would like to ask you some questions about yourself and your group to help us classify these answers.

APPENDIX B

SURVEY QUESTIONNAIRE

PART II: ADMINISTERED AFTER PARK VISIT

In the final section which follows we would like to ask you some questions about your experiences and background to help us classify your answers.

17. Have you visited: (Circle YES or NO for each).

1. The L.B.J. Presidential Library in Austin? YES NO
2. The L.B.J. Boyhood Home in Johnson City? YES NO
3. The Johnson Pioneer Settlement in Johnson City? YES NO

18. Not counting today, I have visited this park _____ times before in the last 5 years.

19. What is the likelihood you will return to this park for another visit in the future? (CIRCLE one number).

1. Probably will 2. Perhaps will 3. Probably will not

20. What is your racial/ethnic origin? (CIRCLE one).

1. Oriental/Asian
2. Black
3. Indian (Native American)
4. Hispanic
5. Caucasian
6. Other

21. What is your sex? (CIRCLE)

1. Male 2. Female

22. What was your age on your last birthday? _____

23. Do you have any disability which hindered you from fully participating in what this park had to offer? (CIRCLE) Yes No

If yes, please explain _____

24. If you have any additional comments or suggestions, please write them below. _____

_____

THANK YOU VERY MUCH FOR YOUR HELP!

LBJ HISTORICAL PARK

s · u · r · v · e · y

Part Two of Our Survey Begins With the Question Below:

11. Please circle how you rate this park area with respect to each of the following statements.

	EXCELLENT	GOOD	ONLY FAIR	POOR	FAILS	DID NOT SEE OR DO
1. The exhibits in the visitor center	A	B	C	D	F	X
2. Opportunities to learn about L.B.J. Ranch operations	A	B	C	D	F	X
3. The helpfulness of ranger at the information desk	A	B	C	D	F	X
4. Opportunities to learn about how L.B.J. lived when he was here	A	B	C	D	F	X
5. Park literature available at information desk	A	B	C	D	F	X
6. Opportunities to learn about the political events that happened here	A	B	C	D	F	X
7. Historical literature available	A	B	C	D	F	X
8. Opportunities to find out about things here	A	B	C	D	F	X
9. Historical type items for puchase	A	B	C	D	F	X
10. Opportunities to learn about the Germans and other people who lived here	A	B	C	D	F	X
11. Bus tour of L.B.J. ranch	A	B	C	D	F	X
12. Quality of other tour(s)/talk(s) led by a ranger	A	B	C	D	F	X
13. Opportunities to take in the natural surroundings	A	B	C	D	F	X
14. Motion picture of L.B.J. ranch	A	B	C	D	F	X
15. Nature trail walk	A	B	C	D	F	X
16. People wearing historical looking clothing at the Sauer-Beckman farm	A	B	C	D	F	X
17. Wild animal viewing area	A	B	C	D	F	X
18. Opportunities to view cattle & farm animals	A	B	C	D	F	X
19. Opportunities to learn more about nature	A	B	C	D	F	X

12. Now CIRCLE each of the above numbered items (1-19) that you found INTERESTING. (Do not circle the items you DID NOT find interesting).

13. What other interesting things, if any, did you find here?_____

Now we would like your opinions about developing new programs, activities and facilities.

14. In the future, the L.B.J. ranch may become more available to visitors. On a scale of 1 to 5, please CIRCLE how important each of the following changes would be for what you would prefer to see and do on a future visit here.

	Not important	Slightly important	Moderately important	Very important	Extremely important
1. Private motor vehicle access to the L.B.J. ranch	1	2	3	4	5
2. On foot access to the L.B.J. ranch	1	2	3	4	5
3. Bicycle access to the L.B.J. ranch	1	2	3	4	5
4. Park tour bus (tram) access to the L.B.J. ranch	1	2	3	4	5
5. Self guided tour in your own private vehicle of the L.B.J. ranch.	1	2	3	4	5
6. Park led bus tour of ranch, with no more than 5 minute stops at major points of interest. Passengers stay on same bus throughout entire tour.	1	2	3	4	5
7. Park led bus tour of ranch. Passengers may leave the tram at major points of interest and board later buses which will come at 15 to 30 minute intervals.	1	2	3	4	5
8. Park led bus tour of ranch. Passengers may leave the tram at major points of interest and board later buses which will come at 30 to 40 minute intervals.	1	2	3	4	5
9. Personally led tours of major points of interest at the ranch (School, Birthplace, Ranch House Complex, Show Barn Area).	1	2	3	4	5
10. Self-guided tours of major points of interest, with park rangers stationed at key locations to answer questions.	1	2	3	4	5
11. Self guided tours of major points of interest with tape recorded messages about each place.	1	2	3	4	5
12. Self guided tours of major points of interest with park guide book or brochure about each place.	1	2	3	4	5
13. Self guided tours of major points of interest with signs at key locations providing information at each place.	1	2	3	4	5
14. Updated motion picture "tour" of ranch at State Park Visitor Center.	1	2	3	4	5
15. Ranger narrated slide program at State Park Visitor Center.	1	2	3	4	5
16. Ranger led nature walk from State Park Visitor Center.	1	2	3	4	5
17. Ranger led tour of ranch grounds and landscaping	1	2	3	4	5
18. Authentic historical reproductions for purchase.	1	2	3	4	5

15. How important would it be for you to see the following things in the Ranch House Complex? CIRCLE the appropriate number.

	Not important	Slightly important	Moderately important	Very important	Extremely important
1. Airplane Hanger	1	2	3	4	5
2. Secret Service Command Post	1	2	3	4	5
3. Working Office	1	2	3	4	5
4. Living Room	1	2	3	4	5
5. Sitting Room	1	2	3	4	5
6. Kitchen	1	2	3	4	5
7. Bedrooms	1	2	3	4	5
8. Guest Rooms	1	2	3	4	5

16. Would you be willing to make a reservation for a tour of the Ranch House Complex? CIRCLE

YES NO