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CAMPERS IN RUSTIC CAMPGROUNDS: CHARACTERISTICS OF NON-SENIOR SUPPORTERS AND OPPONENTS OF DIFFERENTIAL AND HIGHER FEES

By

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ABSTRACT

CAMPERS IN RUSTIC CAMPGROUNDS: CHARACTERISTICS OF NON-SENIOR SUPPORTERS AND OPPONENTS OF DIFFERENTIAL AND HIGHER FEES

By

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Since 1979, the Michigan state forest campground (SFCG) system has increasingly relied on user fees and less on Michigan's general fund for financial support. Campground managers are considering (1) a differential campsite fee system, and (2) a $1 increase in the nightly camping fee to provide needed operations revenue. Managers desire to make these user fee policy decisions with an understanding of the characteristics of campers who support or oppose the proposals.

To gather this information, self-administered questionnaires were distributed to a sample of summer 1995 SFCG campers. Campers rated their support of selected fee proposals. Additionally, campground attributes were rated, demographic profiles and information concerning their camping background was collected. Statistical tests examined whether characteristics of fee proposal supporters and opponents differed.

Opponents to the waterfront fee differential camp more nights in SFCGs than supporters. Supporters as compared to opponents of the $1 fee increase proposal camp fewer nights in SFCGs and spend a greater proportion of developed camping nights in developed campgrounds other than those of the Michigan SFCG system.

DEDICATION

To everyone that assisted in this process by supporting me, providing invaluable advice, listening, being patient, being a friend, providing much needed distractions and by just being there. Especially my major professor Dr. Charles Nelson, other committee members Dr. Dan Stynes and Dr. McDonough. I would also like to thank my parents Mark and Marilyn Johnson, my grandparents Dr. Glenn and Sandy Johnson, and Ralph and Trixie Moulton. My good friends also deserve much appreciation including Andrea Behling, Ray Wagester, Chris Hand, Chris Fink, Emiko Kobayashi, Dave Schleissman, Ken and Amy Elwert, Joel Lynch, Robert Allan and Pastor David Dressel.

Thank you and God Bless,

Paul R. Johnson

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Differential campsite fees – higher fees for waterfront campsites and lower fees for non-waterfront campsites.

Rustic campgrounds – developed campgrounds which are characterized by their lack of modern improvements. Facilities provided include: hand pumps for water, outhouses, picnic tables and level tent pads.

CHAPTER 1

INTRODUCTION

The proportion of public recreation facilities charging user fees and the importance of these fees in agency budgets is increasing (Harris and Driver 1987; Manning, Callinan, Echelberger, Koenemann and Douglas 1984; Nelson 1995b; Nelson, Holecek and Feltus 1984; White 1993; White, Cobus, Manning, Seffel and More 1995). Due to political concerns and a widespread view by managers that public recreation should be free or nearly free, decisions on charging user fees are challenging for many public recreation agencies (Manning and Baker 1981; Manning et al. 1984; White 1993). Even after an agency is accustomed to the practice of charging a user fee, difficult decisions arise when it becomes necessary to increase or change its structure. One potential fee structure is the differential fee system. In this system, managers charge higher or lower fees based on facility or individual site attributes.

When managers are making decisions concerning increased or differential user fees, it is beneficial to understand the characteristics of fee supporters and opponents. A significant amount of research has been conducted to study the effects of increased and differential user fees on campsite use and users. However, little research has been carried

out which studies the characteristics of supporters and opponents of differential and higher fees.

Introduction to the Michigan State Forest Campground System

The Michigan state forest campground (SFCG) system has been in operation since 1929. It is administered by the Michigan Department of Natural Resources (DNR), Forest Management Division (FMD). For the majority of the SFCGs history, its programs have been funded entirely by general fund monies from the State of Michigan. This funding relationship began to shift in 1972, when nightly camping fees were initiated at some of the campgrounds. By 1980, all campgrounds charged fees. However, as campground users were charged new and increased fees from 1980 on, the services provided to them have been decreased. Understandably, campground use declined by more than 50% from 1979 to 1981 (Nelson, Holecek, Feltus, and Sandell 1984).

The mandatory nightly camping fees are collected by the honor system. Campground managers are not present at the campgrounds on a regular basis. Campers are asked to deposit their payments into locked depositories (McTavish 1995) commonly known as the "fee pipe" or "iron ranger". These depositories are rarely checked for camper compliance. A 1984 study found that during weekend days 83.3% of occupied campsites in unhosted campgrounds were registered properly with fees paid (Nelson, Holecek, Feltus and Sandell 1984).

In 1990, the DNR proposed the closure of nearly one-third of the SFCGs as a way to cut costs and consolidate services. In response to widespread public concern about the

proposed loss of recreation opportunities, the Michigan legislature created the Michigan State Forest Recreation Advisory Committee (MSFRAC) in 1990. MSFRAC was established to review this closure recommendation and develop a strategic plan for recreation within the Michigan state forest system.

MSFRAC's review showed that the Michigan state forest recreation system is the largest state forest system of its kind. This system provides numerous recreation, financial and ecological benefits to the people of Michigan. However, the inherent values of the system are not reflected by an appropriate level of stable financial support. As a result, the system's campgrounds and pathways are deteriorating. Data and information collection related to forest recreation facilities, use and the preferences of forest recreationists is only carried out on a sporadic basis. This entire situation was deemed by MSFRAC to be inappropriate (Michigan State Forest Recreation Advisory Committee [MSFRAC] 1995).

In order to remedy the situation, MSFRAC developed a strategic plan entitled "Forest Recreation 2000". The plan includes many 'action elements'. Among them is the call for a funding partnership of users paying fees and the people of the state of Michigan contributing to forest recreation programs through a constitutionally established and protected Forest Recreation Endowment Fund. Users were to pay their 'fair share'. The plan also calls for regular monitoring of state forest recreationists to support marketing initiatives (MSFRAC 1995).

In order to fulfill Forest Recreation 2000's goals, managers were particularly interested in (1) a $1 increase in the nightly camping fee to increase revenue, and (2) a differential fee system where those benefiting from waterfront sites pay more than those

camping away from the lake or river. Direct information from SFCG campers concerning these management proposals was lacking. No marketing information concerning SFCG campers had been gathered since 1987.

In 1993, the Michigan Agricultural Experiment Station (MAES) initiated the Status and Potential of Michigan Natural Resources (SAPMNR) project. SAPMNR's goal was to establish baseline information concerning the status and potential of Michigan's natural resources. Furthermore, it proposed a research agenda which would enhance appropriate resource uses, while safeguarding their productive capability for current and future generations (Bralts and Keisling 1995). In order to facilitate key research proposals, MAES and Michigan State University (MSU) made funding available through a competitive grant process.

Through the SAPMNR project, Drs. Charles Nelson, Daniel Ferguson and Daniel Stynes from the MSU Department of Park, Recreation and Tourism Resources submitted a proposal to study forest recreationists including state forest campground campers. They were successful in receiving funds. In addition, the FMD provided financial, logistical, housing and transportation support.

Problem Statement

Since fiscal year 1980-81, the Michigan state forest campground system has undergone many significant changes with its funding system. Users have had to support a greater amount and percentage of the operations budget. At the same time, campground staffing and services have been reduced (Nelson et al. 1984). Currently, managers are in

the process of focusing on the quality rather than the quantity of campgrounds (Nelson et al. 1994).

Campers in the Michigan SFCG system are partners with the people of the State of Michigan in its financial support. Managers desire to assess the opinions of SFCG campers concerning selected user fee proposals so that they can make policy decisions with the aid of user input.

Objectives

The overall objective of this study is to identify the characteristics of supporters and opponents of differential pricing and increased user fees. Hypotheses will be created and tested to identify which characteristics are associated with this support and opposition. Test results will be analyzed in order to determine their significance to the Michigan SFCG system and for other rustic campground systems. As a result of this research, a series of management recommendations concerning pricing will be developed. Additionally, suggestions for future pricing and marketing research will be provided.

Hypotheses

The initial research hypothesis states that differences exist between Michigan SFCG campers who support and who oppose either a differential fee or an across the board increased campground fee. Additional hypotheses, describing potential differences, were created after a review of related literature. If related literature did not provide guidance in potential relationships, the author's personal knowledge and reasoning concerning Michigan SFCG campers were used. Logical explanations for each hypothesis are provided.

DIFFERENTIAL CAMPSITE FEES

The majority of differential campsite fee literature concerns campsite choice selection under differential campsite fee policies. Even though this study does not investigate campsite choice selection; the literature which will be discussed in the following sections has proved useful in developing testable hypotheses. Those who support differential fees will be designated as "D_S", opponents will be designated as "D_O".

Camper ratings of campground attributes

(1) Respondents who rate the natural setting of the campground higher will be associated with support for the fee proposal.

(2) Respondents who rate the cleanliness of the campsites higher will be associated with support for the fee proposal.

(3) Respondents who rate the cleanliness of the restrooms higher will be associated with support for the fee proposals.

(4) Respondents who rate their sense of safety and security higher will be associated with support for the fee proposals.

In lieu of previous research investigating a camper's rating of campground attributes and their opinions concerning differential campsite pricing policies, it is felt that a camper who is more satisfied with the management of campgrounds will be more supportive of proposed management actions.

Demographics

(5) Current age of respondent: $\bar{D}_S = \bar{D}_O$

Previous research (Manning et al. 1984) concerning campsite selection with differential fee proposals indicates that a camper's age is not a factor with differentially priced campsites.

(6) *Respondents in higher income categories will be associated with support for differential pricing.*

Bamford et al. (1988) found that campers with lower incomes were less favorably inclined toward the concept of fee differentials.

(7) *Gender of the respondents will not be associated with support for the fee proposal.*

Previous research does not provide any indication concerning relationships between support or opposition of differential campsite pricing policies and gender; the author is unable to provide any rationale for a hypothesized association.

Camping behavior

(8) *Number of nights spent in SFCGs during the previous year:* $\bar{D}_S > \bar{D}_O$.

Research within the Vermont State Park system (Bamford et al. 1988) indicates that there is a positive relationship between a campers willingness to pay the premium prices for prime campsites and the number of days annually camped in the type of campground where surveyed.

(9) *Number of nights spent in non–SFCGs during the previous year:* $\bar{D}_S > \bar{D}_O$.

Previous research is unavailable describing the relationship concerning a camper's support or opposition of a differential campsite pricing policy and the number of nights camped in other types of campgrounds. However, it is felt that those who camp more in non-SFCGs will be more apt to support differential pricing policies due to a higher likelihood of becoming acquainted with the differential fee systems which are charged at many other developed public and private camping venues.

(10) Percentage of nights during the previous year spent in SFCGs versus non-SFCGs: $\bar{D}_S < \bar{D}_O$.

Previous research investigating the relationship between a camper's support for differential fees and the percentage of nights they spend in a particular type of campground was unable to be located. However, the previous hypothesis states that $D_S > \bar{D}_O$ for the number of nights spent in non-SFCGs during the previous year. It is believed that campers who spend a greater proportion of their camping nights in non-SFCGs will be more apt to come in contact and therefore become accustomed to differential fee systems.

(11) Number of nights camped where surveyed this trip: $\bar{D}_S > \bar{D}_O$.

Previous research by Bamford et al. (1988) and Manning et al. (1984) found a positive relationship between higher priced campsite selection and length of stay.

(12) Age first camped in a campground: $\bar{D}_S = \bar{D}_O$.

Manning et al. (1984) found no relationship between the number of years camping experience and campsite selection with fee differentials.

(13) Campers with self-contained sleeping equipment, as compared to tents, will be associated with support for differentially priced campsites.

Bamford et al. (1988) found that campers with lower incomes were less favorably inclined toward the concept of fee differentials. The more expensive self-contained camping equipment may indicate a higher level of investment in camping and a camper's higher level of disposable income. Hence, campers with self-contained camping equipment may be associated with support for differentially priced campsites.

A ONE DOLLAR INCREASE IN CAMPING FEES AT ALL STATE FOREST CAMPGROUNDS TO IMPROVE CAMPGROUND MAINTENANCE

Literature on which to directly base hypotheses concerning user opinions of fee increases is limited. Those who support a one dollar increase in camping fees at all SFCGs will be designated as "I_S", opponents will be designated as "I_O"

Camper ratings of campground attributes

(14) Respondents who rate the natural setting of the campground higher will be associated with support for the fee proposal.

Previous literature does not address how a camper's rating of campgrounds natural setting is related to their support or opposition to increased fees. While this information is lacking, it is thought that campers who rate the natural setting of the campground higher will be more willing to pay an increased fee than those who respond with a lower rating.

(15) Respondents who rate the cleanliness of the campsites higher will be associated with support for the fee proposal.

(16) Respondents who rate the cleanliness of the restrooms higher will be associated with support for the fee proposals.

White et al. (1995) contend that in order to build customer support for fees managers need to provide services which are most desired, i.e. clean bathrooms. Therefore, those who rate the cleanliness of the campsites and restrooms higher may be more likely to support an increase in the nightly fee than those who rate the cleanliness lower.

(17) Respondents who rate their sense of safety and security higher will be associated with support for the fee proposals.

Research by Driver (1984) and Fletcher (1984) tends to suggest that a visitor's sense of safety and security may increase when user fees are charged. However, it should be noted that literature is unavailable which investigates whether campers who feel safer and more secure are willing to pay increased user fees.

Demographics

(18) Current age of respondent: $\bar{I}_S < \bar{I}_O$

The National Park Service [NPS] (1986) nationwide survey indicates that an inverse relationship exists between the amount a camper is willing to pay for a nights camping and their age. Survey results from Feltus et al. (1983) indicate that campers who are younger and older are willing to pay more for a nights camping than those who are middle aged.

(19) Respondents in the higher income categories will be associated with support for the fee proposal.

The nationwide National Park Service survey (NPS 1986) indicates that the maximum price campers are willing to pay has a positive relationship with their income.

(20) The gender of the respondents will not be associated with support for the fee proposal.

Previous research does not provide an indication concerning relationships between support for or opposition to differential campsite pricing policies and gender.

Camping behavior

(21) Number of nights spent in SFCGs during the previous year: $\bar{I}_S < \bar{I}_O$.

It is believed that the users who annually camp more nights within the SFCG system will be less supportive of an increase in the nightly camping fee. By following a demand curve it is expected that those campers who want to camp more nights will be willing to pay less for each individual nights camping.

(22) Number of nights spent in non–SFCGs during the previous year: $\bar{I}_S > \bar{I}_O$.

By following a demand curve it is expected that those campers who want to camp fewer nights within the SFCG system will be willing to pay more for each individual nights camping.

(23) Percentage of nights during the previous year spent in SFCGs versus campgrounds other than SFCGs: $\bar{I}_S < \bar{I}_O$

It is hypothesized that campers who camp more nights annually in SFCGs will be more likely to oppose increased fees; and those who camp more nights annually in non-SFCGs will be more likely to support a $1 increase in the nightly camping fee. Also, all other state and federal public systems in Michigan are more expensive than the SFCGs.

(24) Number of nights camped where surveyed this trip: $\bar{I}_S < \bar{I}_O$.

McCurdy's (1970) study of user groups of the Crab Orchard National Wildlife Refuge found that the more people camp the more nights in a particulthey will withhold their support for increased nightly camping fees.

(25) Age first camped in a campground: $\bar{I}_S < \bar{I}_O$.

Previous literature does not reveal any indication of how the age at which a camper first camped in a campground affects his or her support of or opposition to a proposed fee increase. In the absence of this information, it is felt that those campers

who began their camping experience at earlier ages will be more likely to support a fee increase due to their desire to see the campgrounds well maintained.

(26) *Campers with self-contained sleeping equipment, as compared to tents, will be associated with support for a one dollar increase in the user fee.*

The National Park Service 1982-83 survey indicates that the maximum price campers are willing to pay tends to increase with income (NPS 1986). Since the expensive self-contained camping equipment may be indicative of a camper's disposable income it is believed that a camper's use of this equipment may be associated with their support for a one dollar increase in the nightly camping fee.

Statistical Tests

An alpha level of .05 will be used for all statistical tests. The .05 alpha level is being used due to its use in the vast majority of research that was reviewed for this study. In order to compare the findings of this study with previous studies, it is beneficial to use a similar level of significance.

Data used in this study are being analyzed with three statistical tests: the two-independent samples t-test, lambda test of association and Somer's D measure of association.

For the independent variables which are of ratio or interval levels of measurement, the two-independent samples t-test is used. The two-independent samples t-test is designed to examine whether the means from the two independent populations under investigation are significantly different, based on the observed results.

For independent variables which are of the nominal level of measurement, the lambda measure of association is used. The lambda measure is a proportional reduction

in error method (PRE). PRE methods investigate how much better a dependent variable can be predicted when the values of the independent variable are known. Unlike chi-square based statistical procedures, PRE methods can be compared to other methods by observing the statistical level and significance. PRE methods are capable of describing a relationship between two variables from –1 to +1. A statistical level of –1 describes a perfectly inverse linear relationship, while a statistical rating of +1 describes a perfectly positive linear relationship. A statistical rating of 0 shows that the variables have no linear relationship (Norusis 1993).

For the independent variables which are of the ordinal level of measurement, the Somer's D measure of association is used. Somer's D is interpreted using the same methods as the lambda measure of association.

CHAPTER 2

LITERATURE REVIEW

Introduction to the Michigan SFCG System

The Michigan SFCG system currently provides rustic camping experiences at 148 campgrounds. They are located in the mostly rural, northern two-thirds of Michigan. The average SFCG has 22 sites (Johnson and Nelson 1996b). This is relatively small, when compared to the average Michigan campground which has 72 sites (Nelson 1995b). All Michigan SFCGs are located adjacent to an inland lake, Great Lake or river. Annual visitation is approximately 125,000 camp nights (1 party camped on 1 site for 1 night) (Johnson and Nelson 1996b), and 500,000 camper nights (1 camper camped on 1 site for 1 night) (MSFRAC 1995).

MICHIGAN SFCG SYSTEM 1929 TO 1989

The first Michigan SFCG was created in 1929 at Spring Lake (Sandell 1996). From this the system grew to a peak of 180 operating campgrounds in 1979 (MSFRAC 1995). Campgrounds were primarily established at locations where informal camping was already a traditional use of the land (Nelson, Holecek, Feltus, and Sandell 1984). The initial rationale for campground construction was the prevention of wildfires

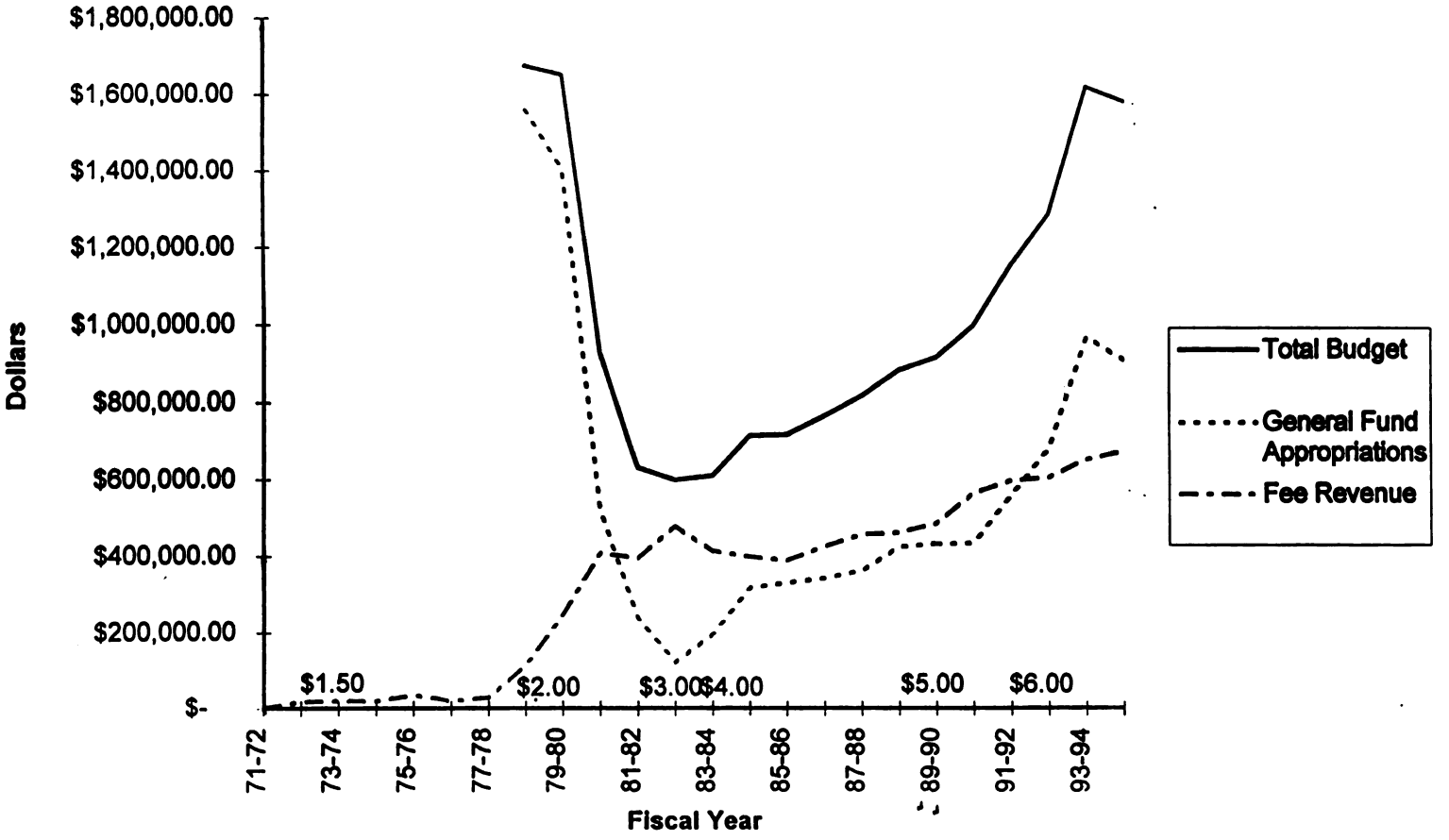
resulting from camping. These campgrounds were not located with the guidance of a systematic plan. Today, the system has environmental, managerial, social, and financial difficulties as a partial result of this inadequate planning and direction.

From 1929 until 1972, those camping at Michigan SFCGs could do so free of charge. All operating and maintenance costs were covered by general fund appropriations. In 1972, a nightly camping fee of $1.50 was introduced at the four busiest campgrounds. In effect, this was a differential user fee based on historical campground use. This fee provided 1% of the fiscal year (FY) 1971-72 $1.4 million operations budget. FY 1976-77 was the peak year for general fund support (Nelson, Holecek, Feltus, and Sandell 1984). From then until 1990 general fund appropriations decreased (Nelson 1995b). As general fund appropriations decreased, user fees were raised and campground staffing was reduced from fifty-four full time equivalent positions to eleven (MSFRAC 1995). Please see Figure 1 for further details concerning the funding history of the Michigan SFCG system.

MICHIGAN SFCG SYSTEM 1990 TO THE PRESENT

In 1990, MSFRAC was created by statute. It was established to provide input to the Michigan DNR and the Michigan legislature concerning forest recreation matters. The specific impetus behind MSFRAC's creation was a budgetary crisis with SFCGs. As a result of this budgetary crisis, the FMD considered closing 1/3 of its campgrounds. The public reacted negatively to this proposal.

Michigan State Forest Campground System Funding History: 1971-72 to 1994-95



(a) Source: Michigan Department of Natural Resources, Forest Management Division
(b) Total budget and non-user funding information is unavailable for FY 1971-72 Through FY 1977-78.

MSFRAC worked successfully with the Michigan legislature to increase general fund appropriations, while retaining all fee revenue and decreasing the size of the campground system by 12%. This action permitted the managers to focus on the quality of the existing system (Nelson et al. 1994). The public responded positively as state forest camping nights increased the following year, in spite of a reduction in the number of sites available.

In 1995, MSFRAC completed its strategic plan for forest recreation on state forest lands. This plan is entitled "Forest Recreation 2000". Of the plan's five elements for action, one focused on the need for

> A commitment by the voters, the Legislature, the Executive office, the DNR and the forest recreationists to provide appropriate stable funding to operate the system. The funding would be from a partnership of users paying fees and the people of the state of Michigan through a constitutionally established and protected Forest Recreation Endowment Fund. (MSFRAC 1995 p. 1)

In FY 1995-96, $1.7 million was available to the forest recreation program (Figure 1). The general fund provided 52% of the funding. Camper fees, which were raised to $6.00 per night in 1991, provide 48% (Forest Management Division 1996). When adjusted for inflation, this funding represents approximately 2/3 of the total dollars available in 1979. Funds provided through the general fund were less than 1/3 of those appropriated in 1979. FY 1994-95 funding supported 22 full time equivalent positions, 40% of those in 1979 (MSFRAC 1995).

Review of Recreation Facility User Fee Studies

Available literature suggests that campers are willing to pay at least a portion of costs associated with managing the recreation facilities that they use (Driver 1984; Feltus

et al. 1983; Godin 1984; NPS 1986). In addition, those who have traditionally paid fees for particular services are more supportive of fees than those who haven't (Driver 1984; Harris and Driver 1987). Information programs appear to help increase the acceptability of user fees among users (McCarville et al. 1993; McCurdy 1970; Reiling et al. 1988). In particular, if the revenues from fees are being directed towards making quality improvements, it is important to communicate this to users (Driver 1984; Laarman and Gregerson 1994; Williams and Forbes 1939). Additionally, making large or irregular increases in user fees may have a detrimental effect on the number of users visiting the particular site. Therefore, it is advantageous to make small, regular fee increases so that users become accustomed to the fee structures and use levels do not decrease (Driver 1984; Laarman and Gregerson 1994; Reiling et al. 1995).

ARGUMENTS PRO AND CON CONCERNING USER FEES

The debate concerning whether or not user fees are desirable, the extent to which they should be utilized, and the amount that should charged has been the topic of many papers. The following is a review of arguments which support and oppose the existence of user fees. This is intended to provide some rationale as to why this topic of debate is worthy of study.

Arguments Pro

There are four main categories of arguments that support the policy of user fees at public recreation sites:

(1) user fees provide financial support for public land management that would not be available otherwise

(2) user fees help to reduce congestion and control vandalism

(3) those who directly benefit from the resources and facilities pay for their use while those who do not receive direct benefits from the resources and facilities do not have to contribute as much to their management and operations.

financial support

In Michigan, support from general tax dollars for forest recreation is decreasing (Nelson 1995b). User fees can be utilized to help recover at least a portion of lost revenue by charging fees (Harris and Driver 1987; Manning et al. 1984; White et al. 1995). Indeed, general fund dollars available to the Michigan SFCG system declined precipitously during the steep recession of 1980-83 (Figure 1). Without user fees, layoffs and campground closures in the forest recreation program would have been more severe.

crowding and vandalism

Crowding may be reduced by implementing or raising user fees for a recreation facility. This can occur when the demand curve for a recreation experience is elastic (Clawson and Knetsch 1966). The act of raising the user fee may reduce the demand for a facility; thereby helping to control negative impacts associated with crowds and overuse (Harris and Driver 1987; Manning and Baker 1982; White et al. 1995) which may lead to environmental damage (Manning et al. 1984).

equity

In some cases user fees have had positive impacts on site users. User fees can create a sense of ownership in the users (White et al. 1995; Williams and Forbes 1939).

In addition, if the collected revenues are invested into the management and operations of the recreation facilities, the users can benefit from improved management practices. These may include litter pick-up, facility cleaning and the removal of hazard trees (Binkley and Mendelsohn 1987; Harris and Driver 1987; Manning and Baker 1981). Where the implementation of user fees has resulted in an increased presence of management personnel, a reduction in vandalism and other depreciative behaviors by facility users has been noted (Driver 1984; Fletcher 1984). In addition, a significant amount of literature is available which indicates that reasonable user fees do not discriminate against those who are poor or are members of minority groups (Clawson and Knetsch 1966; Harris and Driver 1987; Manning et al. 1984; Reiling et al. 1992).

It has been noted that user fees can have positive impacts on those who don't even use the facilities for which a user fee is being charged. Many public recreation providers are supported by general fund tax revenues. These facilities are able to price their goods and services at a level which is substantially lower than the private sector. This creates an environment of unfair competition. By raising user fees so that the prices charged are comparable to those of similar commercial recreation providers, a more competitive situation may exist between the public and private sector (Binkley and Mendelsohn 1987; Harris and Driver 1987; Manning et al. 1984; White et al. 1995). As public recreation providers raise user fees their reliance on tax supported general funds may decrease. This may reduce potential discriminations against tax payers who don't use the facilities which they have been supporting (Congressional Budget Office [CBO] 1993; Driver 1984; LaPage 1968).

Arguments Con

It has been argued that charging user fees for public recreation programs is inequitable, has negative influences on society and that managerial and political support may be lacking.

inequity

Charging user fees for tax supported programs is asserted to be unfair because it may result in double taxation. Users financially support the program when they pay their taxes and again when they pay to use the facility (Williams and Forbes 1939; Harris and Driver 1987; White et al. 1995).

Charging user fees for tax supported programs may be inequitable because it has the potential to discriminate against those who cannot afford to pay the fees. Potential visitors who lack the financial resources to pay the entrance fee will be excluded from the area which is covered by that fee (CBO 1993; Harris and Driver 1987; Reiling et al. 1992).

negative influence on society

Many people feel that the social benefits which result from outdoor recreation opportunities are enough to outweigh any inequities that might arise from using general fund tax revenues for the programs (Clawson and Knetsch 1966). Frederick Law Olmstead felt that public recreation has positive influences on society, including social cohesion and an increased ability of society to self govern (Harris and Driver 1987). The charging of a user fee is often associated with an increase in management personnel and

entrance restrictions which are designed to increase compliance to the user fee system. These actions may create an authoritarian and intrusive atmosphere that is incongruous with the ideal of freedom during leisure (Cockrell and Wellman 1985; Driver 1984; White et al. 1995).

lack of support

Even though user fees for public recreation facilities are an obvious source of revenue, many park and recreation professionals view user fees with ambivalence (Manning and Baker 1981). This ambivalence may be due to additional administrative demands associated with fee collection activities (White et al. 1995). These demands may increase the cost of fee collection to the point of exceeding revenue collections (Manning et al. 1984). In addition, reliance on fees for partial support makes securing tax based funding more difficult (Brademas and Readnour 1989; Reiling et al. 1988; Williams and Forbes 1939) because legislators may feel that the programs are already provided for. There is also a high level of political resistance to charging fees for goods and services that have traditionally been provided free of charge (Laarman and Gregerson 1994).

Willingness to Pay – Contingent Valuation

The contingent valuation method for studying the value which recreationists place on their activities has proven useful to managers and researchers. This method is implemented by asking survey respondents how much they would be willing to pay for a specified unit of recreation. The results are used to construct a demand curve by which

managers can estimate the number of users and the amount of fees which will be collected when they charge a specific user fee.

During the summer of 1982 Feltus et al. (1983) conducted approximately 800 personal interviews of systematically selected Michigan SFCG registered campers. A key component of the study was a contingent valuation / willingness to pay study of registered campers. At the time of the study, the current nightly camping fee was $3. Respondents were given a set of questions exploring their willingness to pay nightly fees from $4 to $10. A realistic bidding environment was created for the respondents. They were informed that if they overbid their willingness to pay, a higher fee than they are willing to pay might be charged. On the other hand, if respondents under bid their willingness to pay, the campgrounds the might be closed. A registered camper's mean willingness to pay was $4.85; with nearly 90% of respondents indicating that they would be willing to pay at least $4 per night. It was predicted that if the FMD increased its camping fee from $3 to $4 per night, a 19% increase in gross campground receipts was to be expected while at $5 a decrease of 3% and at $6 a decrease of 59% was to be expected (Feltus et al. 1983). Based on these conclusions FMD raised the nightly camping fee to $4 in 1983. Revenues increased 21.7% from the previous year (Nelson, Holecek, Feltus, and Sandell 1984). This suggests that modest increases in user fees may be met with favorable reactions from program users.

REFERENCE PRICE

McCarville et al. (1993) experimented with different messages that might alter the amount that people may be willing to pay for a given recreational program. Results indicate that this amount can be influenced by the information that is supplied to the user.

It appears that the most effective messages was to describe the program and how much it costs per participant to operate. This suggests that an agency's efforts to raise user fees may be strengthened by communicating how much it costs to manage the program. Examples of these efforts may include the distribution of interpretive materials describing how much it costs to maintain the current program and the source of the funding.

LITERATURE RELATING INDEPENDENT VARIABLES TO DIFFERENTIAL FEE STRUCTURES

It has been well established that the use of recreation facilities are highly uneven over space and time (Johnson and Nelson 1996a; Manning et al. 1984; Stynes 1978). These uneven use patterns may lead to an inefficient use of resources, needless crowding and negative environmental impacts (Clawson and Knetsch 1966; Manning et al. 1984). For these reasons, the practice of differential campsite pricing has been developed. Managers charge a higher rate for certain campsites, often based on historical campsite use or site quality. These sites are often associated with their proximity to water. This practice has been shown to redistribute campsite use patterns so that they are more efficient and result in fewer negative social and environmental impacts (Bamford et al. 1988; Canavan 1973; Driver 1984; Manning et al. 1984).

However, redistribution is not guaranteed by differential pricing. Differential pricing in the New Hampshire State Parks did not alter campsite use patterns; however, it was credited with raising total revenue 61% (LaPage et al. 1984). Differential pricing studies within the Vermont State Park system resulted in a more even distribution of campsite use and a small increase in revenue (Manning et al. 1984).

LaPage et al (1975) investigated differential campsite pricing within the New Hampshire State Parks. By using existing campground permit data before and after the start of differential campsite pricing, LaPage investigated the influences of a differential campsite pricing system on the camper's length of visit, camper origin, and the occupancy rate of waterfront and non-waterfront sites. The 1982 Manning et al. (1984) study served as a pilot project studying the effects of a small price differential on a campsite user fee system. This was accomplished by close observation on campsite selection and a user survey in the Vermont State Parks. This study was expanded in 1988 by Bamford et al. (1988) to include additional parks and an increased range of differential prices. The results from these research efforts will be discussed in the following sections.

Most research on user fee differentials has concentrated on the effects of differential campsite user fee policies. Little research is available concerning the support or opposition of campers to these policies. However, available research is presented here in order to provide some insight into available differential user fee research.

Camper ratings of campground attributes

A review of the above and other literature did not locate previous research investigating relationships between camper ratings of campground attributes and their opinions concerning differential campsite pricing policies.

Demographics

current age of respondent

Manning et al. (1984) found that age was not a factor in campsite selection with differential fees. However, it appears that Manning et al. did not have a preexisting

differential fee system based on age (senior citizen discount in SFCGs) to cope with. Research investigating camper opinions of differential fees as related to age was not available.

respondents income category

Manning et al. (1984) found that when relatively minor fee differentials were used, income was not a factor in campsite choice selection. The 1988 Bamford et al. (1988) study found that campers with lower incomes were less favorably inclined to support the concept of user fee differentials. Consequently, lower income campers had a slightly higher tendency to select lower priced campsites than higher income campers.

gender of the respondents

Available literature concerning the relationships between a camper's gender and their opinions concerning differential campsite pricing policies was not available.

Camping behavior

number of nights in campground of focus during the previous year

Within the Vermont State Park system Bamford et al. (1988) found a positive relationship between prime campsite choice and the number of days annually camped in a Vermont State Park.

number of nights in spent in campgrounds other than the focus campground during the previous year

A review of available literature was unable to locate previous research investigating relationships between the number of nights a camper spent in campgrounds

other than the type that was the focus for a particular study and their opinions concerning differential campsite pricing policies.

percentage of nights spent in campgrounds other than the focus campground during the previous year

Research was unavailable describing the percentage of nights spent in campgrounds systems other than the focus campground and camper opinions concerning differential campsite pricing policies.

number of nights camped where surveyed this trip

Bamford et al. (1988) and Manning et al. (1984) found that higher priced campsites were selected at a significantly higher rate by visitors spending three or more nights at the park.

age first camped in a campground

Manning et al. (1984) found no relationship between the number of years camping experience and campsite selection with fee differentials.

LITERATURE RELATING INDEPENDENT VARIABLES TO FEE INCREASES

A significant amount of research has been performed related to the reactions and perceptions of users to fee increases within public camping facilities (Driver 1984; Feltus et al. 1983; Fletcher 1984; Laarman and Gregerson 1994; NPS 1986; Nelson et al. 1996; White et al. 1995; McCarville et al. 1993; McCurdy 1970; Williams and Forbes 1939). The majority of these research efforts concern equity issues (who has been impacted by an increased fee and how). Other research efforts concentrate on a camper's willingness

to pay. Research concerning a camper's support of or opposition to increased user fees, before they have been increased, is in limited supply.

In general, campers are more likely to support new/increased user fees if they perceive that improvements are being made with the increased revenues (Laarman and Gregerson 1994; Nelson et al. 1996; White et al. 1995; McCurdy 1970; Williams and Forbes 1939).

Camper ratings of campground attributes

the natural setting of the campground.

A review of available literature was unable to locate previous research which investigates the relationships between a camper's perception of the campgrounds natural setting and their opinions concerning an increase in the camping fee.

campground cleanliness

As a result of an extensive review of past outdoor recreation fee literature. White et al. (1995) contend that in order to build customer support for fees, managers need to provide services that users desire the most, such as clean bathrooms.

sense of safety and security.

Research by Driver (1984) and Fletcher (1984) suggests that visitors experienced an enhanced sense of safety and security and that there was a reduction in depreciative behaviors with the initiation of user fees. However, they state that this may be due to an increased presence of fee collection personnel and the conversion of parks with uncontrolled access to controlled access. While it appears that the visitor's sense of

safety and security may increase when user fees are charged, research which investigates whether campers who feel safer and more secure are willing to pay increased user fees is unavailable.

Demographics

current age of respondent

In 1982-1983, the National Park Service conducted a nationwide recreation survey (NPS 1986). Survey results indicate that the maximum price campers are willing to pay for a nights camping declines with age.

Michigan SFCG campers were the subject of a 1982 willingness to pay study (Feltus et al. 1983). This study found that those 65 and over were less willing to pay higher fees than those under 65. It should be noted that those campers aged 65 and over already had a senior citizen discount and paid less than those under the age of 65. Thus, campers aged 65 and over are already accustomed to paying less than those younger than 65. Therefore it is assumed that they are less willing to pay higher fees when compared to campers under 65.

income of the respondents

The National Park Service 1982–1983 survey indicates that the maximum price campers are willing to pay tends to increases with income (NPS 1986).

gender of the respondents

A review of available literature was unable to locate previous research investigating the relationships between the gender of a camper and their opinions concerning an increase in the camping fee.

Camper behavior

number of nights spent in campground of focus during the previous year

McCurdy (1970) in a study of 283 camper parties found that the users who had been visiting Crab Orchard National Wildlife refuge in southern Illinois for less than five years were more likely to support fees than those who have been visiting for more than five years. These findings are similar to McCarville et al. (1993) who found that respondents who participate more often in an activity have a lower willingness to pay fees than those who participate less often.

other camper behavior studies

A review of available literature did not reveal previous research which investigates the relationships between the following variables and a camper's opinions concerning an increase in the camping fee: number of nights spent in campground other than the focus campground during the previous year; percentage of nights spent in campgrounds other than the focus campground during the previous year; the number of nights camped where surveyed this trip; age first camped in a campground.

CHAPTER 3

DATA COLLECTION

The data for this study were collected as a part of a summer 1995 study of Michigan SFCG campers. Data were not collected for the specific purpose of this investigation; however it was designed to address the specific questions which are being investigated in this study.

The Questionnaire

A self-administered 29-item, 78-variable questionnaire was used to gather data from registered campers (Nelson 1995a; Appendix). A registered camper is defined as the individual on a campsite who has completed the written registration for that site. The questionnaire was designed to collect data concerning the respondents camping history and their current trip characteristics. It was also designed to explore camper preferences for a number of alternative courses of management action, including (1) support for increased fees (2) support for differential fees for selected facilities and services, (3) visitor security issues and (4) issues related to the Americans with Disabilities Act. Additionally, certain demographic information about the respondent and their camping party was collected.

The questionnaire was designed to address current management concerns and permit the investigation of trends by asking selected demographic, trip activity, and spending questions which have appeared on previous studies of Michigan SFCG campers. These studies took place in 1982, 1983 and 1987.

Sampling Procedures

Sampling was performed in 24 geographically stratified campgrounds, with 12 in the Upper Peninsula and 12 in the Lower Peninsula of Michigan (Figure 2). Survey administrators distributed the survey to a maximum of 7 registered campers (if that many sites were occupied and the registered camper were present). Registered campers were systematically selected with a random start. Sampling of campers was undertaken during lunch or dinner times, when campers were most likely to be present and available.

After a brief introduction to the research project, the data collector would leave the questionnaire with a pencil and a promise to return to collect the completed questionnaire. Typically, respondents reported the survey took about 20 minutes to complete (Nelson et al. 1996). After distributing questionnaires to the remaining sample for that campground, the researcher would return to collect the completed instrument, check it for omissions, clarify any points on which the camper was unsure and receive any comments. Those sampled who had not completed the questionnaire were given the option to place it, when completed, in the campground fee pipe.

When compared to previous studies of Michigan SFCG campers, the methods described above are considered to be an improvement from the personal interview methods used in 1982, 1983, and 1987. Compared to these studies, one-fourth the

number of survey administrators were able to complete twice as many surveys (pers. comm. Charles Nelson).

Data Processing

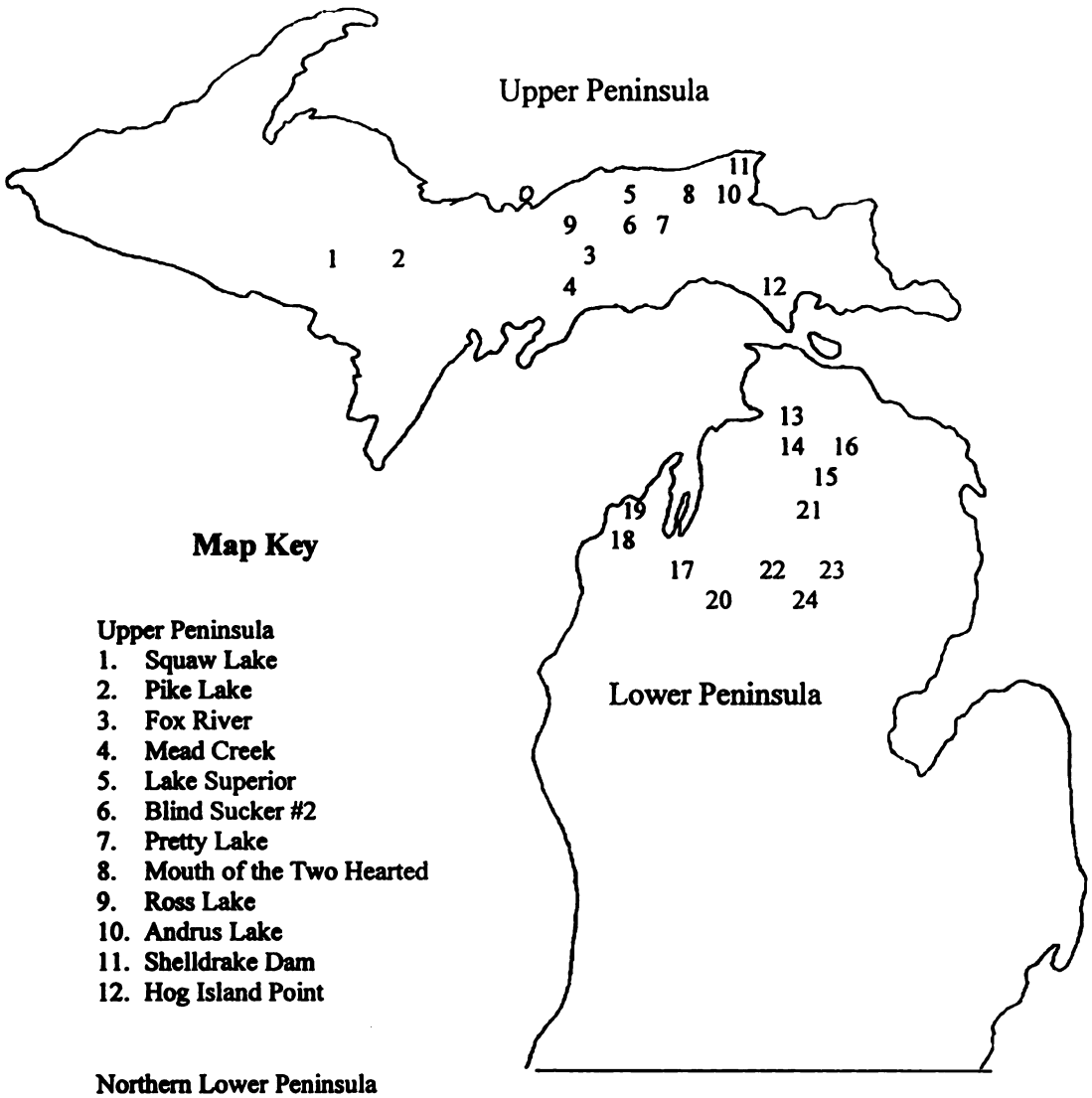
Data were entered onto diskette and analyzed using the Statistical Package for Social Sciences version 7.5. The data were weighted to correct for two potential biases. The first bias was campground/forest use bias. There were sizeable variations among the number of camp nights (1 party camped for 1 night on 1 site) in the respective campgrounds and forests. Large, busy campgrounds often were proportionally

Table 1

Survey schedule for the 1995 Michigan SFCG camper study.

Survey Route (a)	Number of Weekdays Surveyed	Number of Weekend Days Surveyed	Total Days
Cluster 1 (b)	7	7	14
Cluster 2 (c)	5	5	10
Cluster 3 (d)	6	6	12
Cluster 4 (e)	6	6	12
Total	24	24	48

(a) Upper and Lower Peninsula campgrounds were surveyed by different survey administrators.
(b) Cluster 1
Upper Peninsula: Squaw Lake; Pike Lake; Ross Lake
Lower Peninsula: Arbutus #4; Garey Lake; Platte River
(c) Cluster 2
Upper Peninsula: Mead Creek; Hog Is. Point; Fox River
Lower Peninsula: Goose Lake; Lake Margrethe; Houghton Lake
(d) Cluster 3
Upper Peninsula: Lake Superior; Blind Sucker #2; Pretty Lake
Lower Peninsula: Bear Lake; Canoe Harbor; Shupac Lake
(e) Cluster 4
Upper Peninsula: Mouth of the Two Hearted; Andrus Lake; Shelldrake Dam
Lower Peninsula: Haakwood; Pigeon River; Town Corner



Map Key

Upper Peninsula
1. Squaw Lake
2. Pike Lake
3. Fox River
4. Mead Creek
5. Lake Superior
6. Blind Sucker #2
7. Pretty Lake
8. Mouth of the Two Hearted
9. Ross Lake
10. Andrus Lake
11. Shelldrake Dam
12. Hog Island Point

Northern Lower Peninsula
13. Haakwood
14. Pigeon River
15. Big Bear Lake
16. Town Corner
17. Arbutus #4
18. Platte River
19. Garey Lake Trail Camp
20. Goose Lake
21. Shupac Lake
22. Lake Margrethe
23. Canoe Harbor
24. Houghton Lake

Figure 2. Michigan state forest campgrounds sampled in summer 1995

Undersampled due to the upper limit on the number of registered campers sampled in a given day while lesser used campgrounds could be oversampled. To correct for this bias, responses were weighted by the proportion of camp nights in each campground, forest and the system as a whole, using FMD fee receipt data to estimate campground use. This was done by multiplying the percentage of FY 1994-95 camp nights the sample campground accounted for when aggregated with other sampled campgrounds in the forest (district) times the number of survey respondents in the forest (district). The product was divided by the number of survey respondents for that sample campground. Hence, a respondent from a campground with a high percentage of the camp nights among the sample campgrounds in a district and a lower percentage of responses for the district, would have the weight of their responses increased. Conversely, a respondent from a little used campground that had a higher proportion of the total responses that would have been expected based on the number of camp nights would have the weight of their responses decreased.

A second bias related to the number of state forest campground nights camped by the respondent. To use a "one person, one vote" rule in reporting the responses of campers, it is necessary to consider one's possibility of being sampled. A registered camper who camps one nights in a state forest campground annually, versus one who camps many nights, has a much smaller chance of being sampled. Hence, the responses of frequent registered campers dominate the data without a correction for this bial.

This frequency of visit bias is corrected by weighting the responses of each camper by the reciprocal of the number of nights camped in state forest campgrounds the previous year (1994). This assumes their camping behavior in the year sampled (1995)

was similar to that of the previous year. If the person did not camp in a state forest campground the previous year, the length of stay on the current visit was used as the measure of use. So, the responses of the person with one night camped in 1994 would be weighted 1/1, while a person who camped 5 nights would be weighted 1/5, because they had a 5 times greater chance of being sampled.

CHAPTER 4

RESULTS AND ANALYSIS

The results and analysis of the data are divided into two distinct parts. First, basic descriptive data from the 1995 Michigan state forest camper survey are presented; specifically data describing the camping history of SFCG campers, their current trip characteristics, demographics, ratings of selected attributes, and their opinions concerning selected SFCG policy proposals.

In the second major section, campers are categorized independently by their support or opposition to the two user fee policy proposals: (1) a one dollar fee increase in camping fees at all SFCGs to improve campground maintenance; (2) a differential campsite fee policy. Statistical tests are carried out in order to determine if the characteristics of supporters and opponents are statistically significant, and how.

Response Rate

During the time period that respondents had an opportunity to record their opinions concerning the selected user fee policy proposals, a total of 988 self-administered questionnaires were distributed. Of the 988 distributed questionnaires 796 (80.5%) completed questionnaires were returned (Table 2).

While 19.5% of the sample did not respond, the author is not greatly concerned by the potential for a non-response bias. It is felt that the majority of nonrespondents were surveyed at a time when they could not immediately complete the survey and chose to deposit it into the fee pipe (as requested). Many logistical difficulties existed in the collection of these surveys. It is not felt that these campers are significantly different from those who successfully responded to the questionnaire. However, data is unavailable by which this can be tested.

Table 2

Response rate for the 1995 Michigan SFCG camper study.

Survey Region (a)	Questionnaires Distributed	Number of Responses	Percent Responding
Upper Peninsula	542	451	83%
Northern Lower Peninsula	446	345	77%
Total	988	796	80.5%

(a) The Upper and Lower Peninsula campgrounds were surveyed by different survey administrators

Description of 1995 Registered Michigan State Forest Campground Campers

The following are highlights of the 1995 Michigan SFCG camper study. Please refer to Nelson et al. (1996) for a more detailed description of the 1995 Michigan SFCG camper population. These include all respondents including senior campers (those 62 and over) who are not included in hypothesis testing as will be later discussed.

CHARACTERISTICS OF REGISTERED CAMPERS

Registered campers tended to be male (60%), with a mean age of 42 years and the vast majority (98%)were white. Of the registered campers 11% were senior campers. The most common non-white campers were Native Americans. Nearly 40% of registered campers had 1994 household incomes within the $20,000 to $39,999 category.

Registered SFCG campers averaged 16.1 nights of camping during 1994, with 11.1 nights in Michigan and 5 nights out-of-state. Registered campers camped an average of 3.8 of their 11.1 Michigan nights in Michigan at SFCGs. State parks and "other" camping opportunities (e.g. private land, on public land not in a designated campground, etc.) were also frequently used by respondents. Commercial campgrounds and other public campgrounds (e.g. national forest, local public, national park) were used to a lesser extent.

CHARACTERISTICS OF REGISTERED CAMPER ON SAMPLE VISIT

While the majority of respondents had previously visited the campground where they were sampled, 1/3 were on their first visit to that site. The SFCG where the

respondent was surveyed was the primary destination for 4 of 5 respondents. The mean length of stay was just over 3 nights.

Over 90% of the respondents originated in Michigan. The majority originating in Michigan (64%) live in the southern Lower Peninsula, while 30% live in the northern Lower Peninsula and 6% live in the Upper Peninsula. Residents of the Upper Peninsula and the northern Lower Peninsula were proportionally more likely to camp in SFCGs than those from the southern Lower Peninsula. At least 4/5 of Michigan's population lives in the Southern Lower Peninsula, while slightly less than 2/3 of the Michigan resident SFCG campers originate there (Nelson, et al. 1996).

CHARACTERISTICS OF REGISTERED CAMPING PARTY ON SAMPLE VISIT

The mean camping party size was 3.8. The most common camping party size was 2. About 4% of the parties had one or more members qualifying as disabled under the American's with Disabilities Act. The percentage of parties with one or more members qualifying for a handicapper vehicle permit is slightly lower than for those citing a disability.

Over a third of all camping parties included one or more children under 18 years of age. Over 10% contain an adult 62 years of age or over, thus making them eligible for the 50% senior citizen discount rate of $3 per night.

Tents were the single most common sleeping shelter (Table 3). Almost 6 in 10 parties used a tent. Travel trailers, 5th wheels and motor homes provided shelter for approximately 25% of the camping parties. Approximately 11% of camping parties used more than one form of shelter on their site for sleeping.

Table 3

Camping equipment used by registered summer 1995 Michigan SFCG camping.

Percent						
Tent	Tent trailer	Pickup camper	Travel trailer	5th wheel	Motor home	Other
59.2	12.1	10.0	9.7	3.2	12.4	5.3

Respondents reported that swimming was the most commonly performed activity while staying in the campground (Table 4). When considered as a group, water based recreation activities (eg. swimming, fishing and boating) were the most commonly reported activities. Trail recreation activities were engaged in by 2/3 of the reporting parties. Social activities were the least common activity group.

REGISTERED CAMPER RATING OF CURRENT MANAGEMENT

Respondents rated campground attributes from very poor to very good (Table 5). Most respondents rated campground attributes very good or good. The most highly rated attributes for the system were the natural setting of the campgrounds, first impression of the registered camper with the campground and the registered camper's sense of security. Ratings were lowest for cleanliness of the rest rooms.

REGISTERED CAMPER OPINIONS OF KEY CAMPGROUND AND FOREST RECREATION INITIATIVES

When asked if they supported selected campground and forest recreation policy initiatives, the opinions of registered campers were divided (Table 6). Campers were most supportive of granting limited law enforcement authority and the needed

Table 4

Participation in selected recreation activities and activity groups by registered summer 1995 Michigan SFCG camping parties during their current visit.

Activity groups		Activity	
	Percent		Percent
Water	93.3	Swimming	72.0
		Fishing	66.1
		Boating	44.6
Looking	82.8	Nature observation	69.1
		Visit historic site	13.3
		Sightseeing	57.1
		Pick berries/mushrooms	15.8
Trail	67.0	Biking	22.2
		ORV use	3.7
		Hike/walk	60.6
Socializing	41.5	Visit friends/relatives	27.0
		Visit other campers	27.2

Table 5

Percentage of respondents who rated the quality of selected SFCG attributes as very poor, poor, average, good or very good during summer 1995.

Attributes	Very Poor	Poor	Average	Good	Very Good
First impression of campground	0.3%	.8%	13%	43%	43%
Natural setting of campground	0.2%	.6%	6%	32%	61%
Cleanliness of campsite	0.1%	3%	17%	38%	41%
Sense of safety and security	0.7%	3%	14%	38%	45%
Others obeying the rules	0.3%	0.3%	18%	40%	36%
Helpfulness of employees	3%	4%	22%	33%	36%
Restroom cleanliness	3%	9%	27%	31%	30%
Overall performance	0.8%	0.8%	11%	47%	41%

training to campground managers. They also supported raising the minimum age for the senior citizen camping fee discount from age 62 to 65. Campers were least supportive of pricing proposals that would create differential pricing for SFCGs on an inter or intra campground basis.

Opposition was lowest for the limited law enforcement proposal. Only for differential pricing among and within campgrounds were the majority of respondents opposed. The ratio of those supporting versus opposing a given proposal was greater than 1:1 for establishing limited law enforcement authority for FMD employees, raising the senior

Table 6

Percentage of registered summer 1995 Michigan SFCG campers supporting selected policy initiatives.

Policy initiatives	Percent (a)		
	Support	Undecided	Oppose
Limited law enforcement training/authority for FMD managers	69.9	15.6	14.5
Half price senior citizen discount for registered campers ≥ 65	60.9	5.6	33.6
One dollar increase in nightly camping fee	51.3	6.7	36.6
Camping fee for non-designated site camping	44.8	13.6	41.6
Pathway user annual fee	33.0	17.2	49.8
Intercampground differential pricing based in campground use level	27.4	10.0	62.6
Intracampground differential pricing based on waterfront site	19.1	9.2	66.7

(a) Percents in rows may not add up to 100% due to rounding.

citizen discount minimum age, increasing the nightly camping fee across the system by $1 and initiating a camping fee for non-designated site camping.

Comparison of Respondents Who Support or Oppose the Policy Proposals

The main purpose of this study is to determine differences between supporters and opponents of the waterfront fee differential and the one dollar fee increase proposals. While analyzing the results, it was determined that those respondents who are eligible for the half price senior discount on the nightly camping fee represent a distinct group within the SFCG camper population. Seniors are currently charged $3 per night, and non-seniors are charged $6. If the fees for each group are increased by $1 this represents a 33% increase for seniors while it is only a 17% increase for non-seniors. Due to these differences, the hypothesis testing will only include the non-senior respondents. This does not mean that seniors are an unimportant part of the SFCG system. However, due different implications of the fee increase for them and their relatively small proportion of the sample (11%), they are not included in further analysis.

WATERFRONT FEE DIFFERENTIAL

A series of two independent sample t-tests, Somer's D measures of association and the lambda measure of association tests were conducted on the data set. An alpha level of .05 was used in all tests in order to measure association and to determine if significant differences exist between those who support and those who oppose the waterfront fee differential proposal. Table 7 presents the results from the two independent sample t-tests. Table 8 presents the results from the Somer's D and the lambda measure of association tests.

Of the six interval variables being tested for associative relationships (Table 7) three have statistically significant differences. Supporters of differential fees were more likely than opponents to have a shorter stay at the campground on their current trip and a smaller proportion of their Michigan camping nights in SFCGs compared to other developed campgrounds.

Some of the results coincide with the stated hypotheses, while others were contrary to them. As hypothesized, on an annual basis supporters spent proportionately fewer nights in SFCGs, than other developed Michigan campgrounds. However, the relationships concerning the number of nights respondents spent on their current trip and on an annual basis were contrary to the hypothesized relationships.

Hypothesis testing of ordinal and nominal variables (Table 8) showed only one statistically significant relationship at the .05 level. Those who rated their sense of safety and security higher were slightly more likely to oppose the waterfront differential. As hypothesized, the gender of the respondent appears to have no influence on their support or opposition to the waterfront differential proposal.

In total, the independent variables tested were not very useful in explaining differences between differential fee supporters and opponents. Furthermore, in the variables where statistically significant differences were found, the relationships were weak. This suggests that factors other than those examined are influencing support or opposition for differential fees in Michigan SFCGs.

ONE DOLLAR FEE INCREASE

As with the waterfront campsite fee differential, a series of two-independent sample t-tests, Somer's D measures of association and the lambda measure of associationtests were conducted on the data set. An alpha level of .05 was used in all tests in order to measure association and to determine if significant differences exist between those who support and those who oppose the waterfront fee differential proposal. Table 9 presents the results from the interval level data. Table 10 presents the results for the nominal and ordinal level data.

Hypothesis testing of ordinal and nominal level variables (Table 9) indicates statistically significant relationships between supporters and opponents of the $1 increase in the camping fee in five of the six variables. As hypothesized, supporters of the $1 fee increase camped fewer nights in the campground during their current trip. Annually, supporters spent more nights in developed Michigan campgrounds other than SFCGs, and fewer in the SFCG system. They also spent a greater proportion of their Michigan developed campground nights outside the SFCG system. Finally, supporters of the $1 fee increase were slightly younger than opponents.

Hypothesis testing of ordinal and nominal variables (Table 10) showed only two statistically significant differences at the .05 level. Those with higher annual incomes were slightly more likely to support the $1 fee increase proposal.. Also, those who rated the cleanliness of the restrooms higher

Table 7

Two independent sample t-tests of non-senior supporters and opponents of a waterfront differential in camping fees at all Michigan SFCGs to improve campground maintenance.

Independent Variable	Supporters N=114 (a)	H_1 (b)	Opponents N=448 (a)	Significance <.05 (c)	Hypothesis Confirmed
	Mean		Mean		
Age first camped	13.2	=	12.7		Yes
# nights in SFCGs	2.7	>	3.9	*	No (d)
# nights in non-SFCGs (e)	5.7	>	4.9		No
% of nights in SFCGs	36%	<	46%	*	Yes
Total # of nights spent trip	2.8	>	3.5	*	No (d)
Current age	38.2	=	38.9		No

(a) The sample size may vary with respect to the individual variables due to the different number of nonresponses to individual questions.

(b) Hypothesized relationship is that supporters would be greater than (>), less than (<), or equal to (=) those who oppose the waterfront differential in camping fee

(c) significance level is <.05

(d) Hypothesis not confirmed, but relationship is significant.

(e) Number of nights is developed campground in Michigan other than SFCGs.

were less likely to support the $1 fee increase proposal. This may be because the respondents who were satisfied with restroom cleanliness may see less need to increase the fees for maintenance purposes. As with the differential campsite fee proposal, gender appears to have no relationship to the support or opposition to the $1 increase proposal

In summary, the independent variables tested were helpful in explaining the differences between fee supporters and opponents. This was especially true of the variables which describe a respondent's camping behavior and demographics. Supporters of the proposed fee increase are slightly younger and have higher incomes

Table 8

Measures of association between supporters and opponents of differential campsite fees at all Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their support as compared to opposition to the proposal.

Independent Variable (d)	Support N= 114 (a)		Oppose N= 448 (a) (f)		Value	Significance	H_1 (b)	Hypothesis Confirmed
Rating of natural setting (f)	Poor	11	Poor	31	-.064	.36	+	No
	Good	102	Good	414				
Rating of cleanliness of campsites (f)	Poor	28	Poor	88	-.048	.27	+	No
	Good	85	Good	355				
Rating of cleanliness of restrooms (f)	Poor	39	Poor	181	.041	.23	+	No
	Good	70	Good	250				
Rating of sense of safety and security (f)	Poor	27	Poor	59	-.129	.02	+	No (g)
	Good	86	Good	380				
Rating of overall performance (f)	Poor	12	Poor	44	-.010	.77	+	No
	Good	98	Good	399				
Gender of respondent	Male	62	Male	264	.000	.99	=	Yes
	Female	48	Female	181				
Sleeping shelter (e)	Uncontained	63	Uncontained	242	.000	.99	+	No
	Contained	48	Contained	189				
Household income	Less than $20	21	Less than $20	77	.022	.46	+	No
	$20 - $39	29	$20 - $39	119				
	$40 - $59	37	$40 - $59	85				
	$60 - $79	4	$60 - $79	32				
	$80 or more	6	$80 or more	16				

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable.

(b) Hypothesized relationship is positive (+), negative (-), or none (=).

(c) A .05 level of significance is being used.

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

(g) Hypothesis not confirmed but relationship is statistically significant.

TABLE 9

Two independent sample t-tests of supporters and opponents of a $1 increase in camping fees at all Michigan SFCGs to improve campground maintenance.

Independent Variable	Supporters N=340 (a)	H_1 (b)	Opponents N=232 (a)	Significance <.05 (c)	Hypothesis Confirmed
	Mean		Mean		
Age first camped	12.2	<	13.5		No
# nights in SFCGs	3.1	<	4.4	*	Yes
# nights in non-SFCGs (e)	5.3	>	3.6	*	Yes
% of nights in SFCGs	39%	>	51%	*	No (d)
Total # of nights spent trip	3.2	<	3.8	*	Yes
Current age	37.4	<	39.7	*	Yes

(a) The sample size may vary with respect to the individual variables due to the different number of nonresponses to individual questions

(b) Hypothesized relationship is that supporters would be greater than (>), less than (<), or equal to (=) those who oppose the waterfront differential in camping fees.

(c) * significance level is <.05

(d) Hypothesis not confirmed but relationship is statistically significant

(e) Number of nights in a developed campground in Michigan other than SFCGs

than opponents. Additionally, supports spend fewer nights in SFCGs during their current trip and on an annual basis than opponents. Satisfaction with restroom cleanliness is somewhat positively associated with opposition to the $1 increase fee proposal.

Comparison of Respondents Who are Undecided Versus Those Who Either Support or Oppose the Policy Proposals

An important group of campers to characterize in relationship to supporters and opponents are those who are undecided on these proposals. No hypotheses are presented as no literature was found concerning those undecided on fee support or opposition to fee proposals. As with the testing between supporters and opponents, a series of

TABLE 10

Measures of association between supporters and opponents of a $1 increase in camping fees at all Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their support as compared to opposition to the proposal.

Independent Variable (d)	Support N= 340 (a)		Oppose N= 232 (a) (f)		Value	Significance	H_1 (b)	Hypothesis Confirmed (c)
Rating of natural setting (f)	Poor	22	Poor	18	.049	.55	+	No
	Good	315	Good	211				
Rating of cleanliness of campsites (f)	Poor	68	Poor	54	.048	.35	+	No
	Good	269	Good	175				
Rating of cleanliness of restrooms (f)	Poor	154	Poor	75	-.134	.001	+	No (g)
	Good	174	Good	149				
Rating of sense of safety and security (f)	Poor	51	Poor	35	-.007	.90	+	No
	Good	285	Good	190				
Rating of overall performance (f)	Poor	38	Poor	18	-.094	.16	+	No
	Good	296	Good	210				
Gender of respondent	Male	202	Male	137	.000	.99	=	Yes
	Female	134	Female	93				
Sleeping shelter (e)	Uncontained	214	Uncontained	100	.000	.99	+	No
	Contained	120	Contained	117				
Household income	Less than $20	52	Less than $20	47	.117	.001	+	Yes
	$20 - $39	91	$20 - $39	62				
	$40 - $59	80	$40 - $59	46				
	$60 - $79	31	$60 - $79	5				
	$80 or more	18	$80 or more	6				

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable

(b) Hypothesized relationship is positive (+), negative (-), or none (=)

(c) A .05 level of significance is being used

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

(g) Hypothesis not confirmed but relationship is statistically significant

two-independent sample t-tests, Somer's D and the lambda measures of association were used to determine it differences exist between those who are undecided concerning the user fee policy proposals versus those who either support or oppose them.

WATERFRONT FEE DIFFERENTIAL

Similar to the testing between supporters and opponents to the waterfront fee differential, the independent variables tested were not especially useful in explaining differences between those who were undecided and those who either supported or opposed the proposal (Tables 11, 12 and 13). However, a few interesting results were found. In Table 11, undecideds reported that they first camped in a campground at a younger age than those who support and those who oppose the differential fee proposal. Second, those who are undecided camp fewer nights annually in Michigan developed campgrounds outside the SFCG system than supporters and opponents. They also spend a higher proportion of their annual camping nights in SFCGs than those who support the fee differential. In Tables 12 and 13 the only nominal or ordinal independent variable to have a statistically significant result was that those who rated the cleanliness of the campsites as good were slightly more likely to be opposed to the fee differential than to be undecided towards it.

ONE DOLLAR FEE INCREASE

Undecided campers were likely to be older than opponents or supporters of the $1 fee increase (Table 14). They were also statistically different than opponents in that they camper more Michigan nights in developed campgrounds other than SFCGs and were on a shorter stay when sampled. The only nominal or ordinal variables to show statistically

significant differences were related to facility cleanliness (Tables 15 and 16). When comparing those who are undecided to supporters and opponents of the fee increase, those who were undecided were significantly more likely to rate the restrooms as cleaner.

TABLE 11

Two independent sample t-tests comparing characteristics of undecided respondents to supporters and opponents of a differential campsite fee proposal at Michigan SFCGs during summer 1995.

Independent Variable	Undecided N=57 (a)	Supporters N=114 (a)	Significance <.05 (b)	Opponents N=448	Significance <.05 (b)
	Mean	Mean			
Age first camped	9.5	13.2	*	12.7	*
# nights in SFCGs	2.7	3.1		3.9	
# nights in non-SFCGs (c)	2.9	5.7	*	4.9	*
% of nights in SFCGs	53%	36%	*	46%	
Total # of nights spent trip	3.0	2.8		3.5	
Current age	38.1	38.2		38.9	

(a) The sample size may vary with respect to the individual variables due to the different number of nonresponses to individual questions
(b) * significance level is <.05
(c) Number of nights in developed campgrounds in Michigan other than Micichigan SFCGs

Table 12

Measures of association between supporters and those who are undecided concerning a the differential campsite fee proposal at Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their undecidedness as compared to support for the proposal.

Independent Variable (d)	Support N= 114 (a)		Undecided N= 57 (a) (f)		Value	Significance <.05 (c)
Rating of natural setting (f)	Poor	11	Poor	3	.119	
	Good	102	Good	51		
Rating of cleanliness of campsites (f)	Poor	28	Poor	18	-.094	
	Good	85	Good	36		
Rating of cleanliness of restrooms (f)	Poor	39	Poor	18	.018	
	Good	70	Good	35		
Rating of sense of safety and security (f)	Poor	27	Poor	13	.003	
	Good	86	Good	42		
Rating of overall performance (f)	Poor	12	Poor	4	.088	
	Good	98	Good	50		
Gender of respondent	Male	62	Male	42	.000	
	Female	48	Female	15		
Sleeping shelter (e)	Uncontained	63	Uncontained	30	.000	
	Contained	48	Contained	27		
Household income	Less than $20	21	Less than $20	7	-.023	
	$20 - $39	29	$20 - $39	26		
	$40 - $59	37	$40 - $59	11		
	$60 - $79	4	$60 - $79	5		
	$80 or more	6	$80 or more	2		

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable

(b) Hypothesized relationship is positive (+), negative (-), or none (=)

(c) * significance level is <.05

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

Table 13

Measures of association between opponents and those who are undecided concerning a the differential campsite fee proposal at Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their undecidedness as compared to opposition to the proposal.

Independent Variable (d)	Opponents N= 448 (a)		Undecided N= 57 (a) (f)		Value	Significance <.05 (c)
Rating of natural setting (f)	Poor	31	Poor	3	.021	
	Good	414	Good	51		
Rating of cleanliness of campsites (f)	Poor	88	Poor	18	-.078	*
	Good	355	Good	36		
Rating of cleanliness of restrooms (f)	Poor	181	Poor	18	.032	
	Good	250	Good	35		
Rating of sense of safety and security (f)	Poor	59	Poor	13	-.081	
	Good	380	Good	42		
Rating of overall performance (f)	Poor	44	Poor	4	.028	
	Good	399	Good	50		
Gender of respondent	Male	264	Male	42	.000	
	Female	181	Female	15		
Sleeping shelter (e)	Uncontained	242	Uncontained	30	.000	
	Contained	189	Contained	27		
Household income	Less than $20	77	Less than $20	7	.007	
	$20 - $39	119	$20 - $39	26		
	$40 - $59	85	$40 - $59	11		
	$60 - $79	32	$60 - $79	5		
	$80 or more	16	$80 or more	2		

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable

(b) Hypothesized relationship is positive (+), negative (-), or none (=)

(c) * significance level is <.05

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

TABLE 14

Two independent sample t-tests comparing characteristics of undecided respondents to supporters and opponents of a proposed $1 increase in the nightly camping fee at all Michigan SFCGs during summer 1995.

Independent Variable	Undecided N=46 (a)	Supporters N=340 (a)	Significance <.05 (b)	Opponents N=291	Significance <.05 (b)
	Mean	Mean			
Age first camped	11.1	12.2		13.5	
# nights in SFCGs	3.4	3.1		4.4	
# nights in non-SFCGs	8.0	5.3		3.6	*
% of nights in SFCGs	54%	39%		51%	
Total # of nights spent trip	2.6	3.2		3.8	*
Current age	43.0	37.4	*	39.7	*

(a) The sample size may vary with respect to the individual variables due to the different number of nonresponses to individual questions

(b) * significance level is <.05

Table 15

Measures of association between supporters and those who are undecided concerning a proposed $1 increase in the nightly camping fee at all Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their undecidedness as compared to support for the proposal.

Independent Variable (d)	Support N= 340 (a)		Undecided N= 46 (a) (f)		Value	Significance <.05 (c)
Rating of natural setting (f)	Poor	22	Poor	2	.032	
	Good	315	Good	41		
Rating of cleanliness of campsites (f)	Poor	68	Poor	12	-.049	
	Good	268	Good	30		
Rating of cleanliness of restrooms (f)	Poor	154	Poor	7	.112	*
	Good	174	Good	32		
Rating of sense of safety and security (f)	Poor	51	Poor	12	-.095	
	Good	285	Good	30		
Rating of overall performance (f)	Poor	38	Poor	4	.021	
	Good	296	Good	39		
Gender of respondent	Male	202	Male	28	.000	
	Female	134	Female	17		
Sleeping shelter (e)	Uncontained	214	Uncontained	21	.000	
	Contained	120	Contained	25		
Household income	Less than $20	52	Less than $20	3	-.007	
	$20 - $39	91	$20 - $39	19		
	$40 - $59	80	$40 - $59	7		
	$60 - $79	31	$60 - $79	6		
	$80 or more	18	$80 or more	0		

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable

(b) Hypothesized relationship is positive (+), negative (-), or none (=)

(c) * significance level is <.05

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

Table 16

Measures of association between opponents and those who are undecided concerning a proposed $1 increase in the nightly camping fee at all Michigan SFCGs during summer 1995.

The value (positive or negative) signifies the relationship between a respondents higher rating of the independent variable and their undecidedness as compared to opposition to the proposal.

Independent Variable (d)	Opponents N= 232 (a)		Undecided N= 46 (a) (f)		Value	Significance <.05 (c)
Rating of natural setting (f)	Poor	18	Poor	2	.063	
	Good	211	Good	41		
Rating of cleanliness of campsites (f)	Poor	54	Poor	12	-.035	
	Good	175	Good	30		
Rating of cleanliness of restrooms (f)	Poor	75	Poor	7	.091	*
	Good	149	Good	32		
Rating of sense of safety and security (f)	Poor	35	Poor	12	-.119	
	Good	190	Good	30		
Rating of overall performance (f)	Poor	18	Poor	4	-.025	
	Good	210	Good	39		
Gender of respondent	Male	137	Male	28	.000	
	Female	93	Female	17		
Sleeping shelter (e)	Uncontained	100	Uncontained	21	.000	
	Contained	117	Contained	25		
Household income	Less than $20	47	Less than $20	3	.073	
	$20 - $39	62	$20 - $39	19		
	$40 - $59	46	$40 - $59	7		
	$60 - $79	5	$60 - $79	6		
	$80 or more	6	$80 or more	0		

(a) Response to a $1 increase in camping fees at all Michigan SFCGs is treated as the dependent variable

(b) Hypothesized relationship is positive (+), negative (-), or none (=)

(c) A .05 level of significance is being used

(d) Somer's D measure of association is used for: the respondents rating of (natural setting; cleanliness of campsites; cleanliness of restrooms; sense of safety and security; and household income). Lambda measure of association is used for the gender of the respondent and for their sleeping shelter.

(e) Contained shelter include motorhomes, travel trailers and 5th wheelers Uncontained shelters include tents.

(f) Due to the low numbers of very poor and poor ratings those who responded as very poor, poor and average were grouped into the "poor" category; those responding as good or very good were grouped into the "good" category.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study has been to examine potential differences and hypothesize reasons for these differences between supporters and opponents of a one dollar increase in SFCG camping and differential fees for waterfront sites. These results are intended to aid managers in developing fee policies and in campground marketing efforts. Recommendations concerning future research of differential user fee policies and increased user fees will also be presented.

Conclusions

WATERFRONT FEE DIFFERENTIAL

Only 20% of respondents reported that they support the waterfront campsite fee differential proposal. The purpose of this study has been to identify distinguishing characteristics between opponents and supporters of a waterfront campsite fee differential. Of the independent variables which were tested, several were significantly different. However, these significant differences are slight.

Supporters of the differential fee policy camp slightly fewer nights in SFCGs on an annual basis, were on shorter stays during the trip when sampled and spent a smaller

proportion of their Michigan developed camping time in SFCGs than opponents. In Vermont, Bamford et al. (1988) found a positive relationship between choosing more expensive waterfront campsites and the number of days camped in a Vermont State Park per year. It appears that even though campers who utilize a system more may be willing to spend more for the prime campsites, they may be less supportive of establishing such a differential fee structure.

It was hypothesized that a camper's rating of campground attributes (essentially a rating of how the managers are performing) would influence their support or opposition to the proposal. For the majority of campground attributes, this was not found to be the case. However, a respondent's rating of restroom cleanliness was found to have a weak yet positive relationship with their support for differential fees. This implies that for the majority of campground attributes, efforts spent on their improvement are not likely to improve camper support for differential fees. However, as most respondents rated the campground attributes positively, little discrimination was available in the sample population between supporters and opponents.

There are a number of reasons why respondents may not be in favor of a differential campsite fee structure. First, the campgrounds in question are relatively small and uncrowded. The highly desirable waterfront sites are often readily available. This results in a situation where campers have little incentive to support a differential fee structure to obtain desirable sites. In addition, users are accustomed to paying the same price for all campsites. The results might have been different had the survey presented information explaining how a differential campsite pricing policy would help the SFCG system in terms of potential improvements.

As seen in New Hampshire (LaPage 1975) and Vermont (Bamford et al. 1988; Manning et al. 1984) campers will pay differential fees based on campsite attractiveness. However, those who do so may not support the policy that requires it. In New Hampshire and Vermont, increase revenues resulted from the implementation of differential fees. (LaPage et al. 1984; Manning et al. 1984). However, differential fees may not distribute SFCG campsite use away from the premium waterfront sites towards the underutilized non-waterfront sites if occupancy rates remain low.

If managers desire to increase the level of support for the differential fee policy, it may be useful for SFCG managers to provide information to campers concerning the prices at other campgrounds. This may be in the form of an informational bulletin entitled "Area camping options if this campground is full". The bulletin may provide locations and price structures of nearby campgrounds. These prices will typically be higher and will illustrate the differential fee structure prevalent elsewhere.

ONE DOLLAR FEE INCREASE FOR CAMPGROUND MAINTENANCE

Fifty-four percent of the respondents support a $1 increase in camping fees at all SFCGs to improve campground maintenance.

Independent variables concerning a camper's experience and behavior were very helpful in understanding the differences which exist between supporters, opponents and those who are undecided concerning the $1 fee increase proposal. Generally, those non-seniors who support the proposal annually camp fewer nights in the SFCG system and spend a smaller proportion of their Michigan developed camping nights at SFCGs than opponents.

There were few statistically significant differences between supporter and opponents. The exception to this was a camper's rating of restroom cleanliness. Respondents who rated the cleanliness of the restroom higher were more likely to be opposed to the $1 fee increase. This may be due to a feeling that there is little need to improve maintenance if the restrooms are already clean. Further, those who were undecided rated restrooms cleaner than opponents or supporters. In conclusion, these results indicate that stressing additional attention to restrooms as a use for new revenue may improve support for the proposal.

Recommendations

The purpose of this study has been to examine potential differences between supporters and opponents of selected Michigan SFCG user fee proposals. Future studies should be based on the results of this and other studies which examine differential and increased user fees.

First, it is recommended that managers develop an information program as they raise or change the fee structure at their campgrounds. Previous studies have shown that information programs help to increase the acceptability of different or increased user fees (McCarville et al. 1984; Reiling et al. 1988). McCarville et al. demonstrated that the types of information included in such a program can affect the price users expect to pay for a program. It would be particularly effective for managers to provide a description of management costs associated with the campground and how the increased/differential fee would improve the campers' experience in the future. While conducting the interviews for this study, many of the respondents anecdotally stated that they believed that expenses incurred by the managers were less than the amount recovered from fee collection. As

shown in Figure 1 (page 16), this is not the case. Additionally, managers may want to include in their information program a description of nearby campgrounds, especially their price structures. This may increase support for the one dollar increase and the waterfront fee differential, by showing campers what substitute offerings are available and how inexpensive the SFCGs are in comparison to other systems.

It is also advised that when fee increases are implemented, they should be small and occur on a regular basis (Driver 1984; Laarman and Gregerson 1994; Reiling et al. 1992). From a practical standpoint, the ease at which prices may be changed depends on where the legal authority rests to set prices. In the legislative arena, especially during an election year, enacting a fee increase is often problematic. In Michigan, the legislature has delegated the responsibility for setting SFCG fees to the Natural Resource Commission. This provides a better opportunity to make the case to individuals who may be somewhat less politically motivated.

Another challenge that public rustic camping programs face is the use of camping fees for purposes other than to support the camping programs. In order to meet this challenge, the camping fees may be placed in restricted or earmarked accounts that are mandated by law to be used only within the campground program. This action may allay people's fears that money they thought would support their program might be used for other purposes.

It is also recommended that future researchers conduct an importance / performance study concerning the campground attributes rated in 1995. This would permit researchers to determine the importance of each campground attribute, and how

managers are performing. A two dimensional representation with four quadrants would be created. These quadrants inform the manager whether a campground attribute is:

- important and they are performing well (keep up the good work)
- unimportant and they are performing well (pay less attention to this)
- important and performance is poor (most additional attention is needed here)
- unimportant and performance is poor (least need to improve)

This information that may aid managers in the design and implementation of information and maintenance programs.

Researchers could combine this importance / performance study with a complete willingness to pay study. This willingness to pay study would examine how much campers would be willing to pay for all sites, waterfront sites and non-waterfront sites. By combining these studies a three dimensional representation of how importance / performance varies with a camper's willingness to pay a selected fee can be constructed. This would give managers an indication of the type of facilities and the quality of management necessary at selected fee levels for their current clientele.

This research was limited in a number of ways. It was not a study of how much campers were willing to pay for a nights camping. Instead, respondents were only asked whether they supported specific fee proposals. Additionally, respondents were not asked if they would still be willing to visit the SFCGs if the proposals were adopted. Finally, seniors were asked the same questions as non-seniors about fees, even though their current fee structure is different. This did not allow an appropriate comparison of seniors and non-seniors.

The purpose of this research effort has been to investigate the ways in which Michigan SFCG campers who support, oppose or are undecided concerning the differential and higher user fees are different from each other. This is useful for planning a focused marketing effort which has the purpose increasing the using publics acceptability toward these user fee proposals. The differences which were found to be statistically significant were slight. In general, campgrounds such as those in the Michigan SFCG system cater to a fairly homogeneous user group. This indicates that managers should undertake marketing programs whose efforts are aimed at the range of campers, not just select groups, since there appear to be few sizeable differences between those who support, oppose or are undecided concerning the user fee proposals. These marketing plans should focus on informing campers of the reasons and benefits of higher and differential user fees. It is believed that if the fee structures makes sense to the users they will be more likely to support them.

In conclusion, the implementation of fee increases is necessary for the continued management of the SFCG system and the many positive impacts that it has on it's users. First, fee increases are needed to safeguard the resources. The management of the campgrounds is expensive, it costs money to clean the campsites and restrooms, check the quality of the drinking water, repair and replace roads, picnic tables, fire rings etc. Additionally, personnel have to be continually trained for the effective and efficient management of these campgrounds. Due to budget cuts, many of these operations have been delayed and are in need of attention.

The fact that differential fees or across the board fee increases may not be popular with all SFCG campers does not mean the they should not be implemented. The

managers are not in a popularity contest, they are there to manage the campgrounds in an effective manner. This means that when a change in the fee structure is needed it should be done in a way that is acceptable to the users so that they continue to make use of the SFCG system, while providing financial support.

APPENDIX

APPENDIX

2. Approximately how many nights did you camp **in** Michigan in 1994? _____

3. Approximately how many nights did you camp **out of** Michigan in 1994? _____

4. How many nights you camped **in** Michigan in 1994 were spent in each type of camping area?

SFCGs #_____

State parks #_____

Other public campgrounds #_____

Commercial campgrounds #_____

Camped on public land with no formal campground #_____

Other (please explain _____) #_____

SECTION II. QUESTIONS ABOUT THIS CAMPGROUND AND THIS TRIP

5. Is this **YOUR FIRST** visit to this campground?____ Yes ____ No (If no, go to Ques. 7)

6. If it is your first visit, check the most important sources of information that prompted it?

___Commercial camping directory ___Michigan Travel Bureau ___Highway Welcome Center

___Family/Friends ___Road sign ___DNR Camping Brochure

___Other (please list_____)

7. Is this area your primary destination this trip? ___ Yes ___No

8. How many nights have you camped here this trip NOT INCLUDING TONIGHT? #____

9. How many more nights, INCLUDING TONIGHT, will you stay here this trip? #____

10. What type of camping equipment is being used *for sleeping* at this campsite? Please check ALL that are being used.

_____ Tent _____ Truck Camper/Cover

_____ Tent Camper _____ 5th Wheeler

_____ Motor Home _____ Travel trailer

_____ Other (please explain_____)

11. Which ONE of the following best describe the people on this campsite?

APPENDIX

11. Which ONE of the following best describe the people on this campsite?

___ All Family ___ All Friends ___ Friends and Family

___ Camping Alone ___ Organized Group (Group name_____)

12. Including **YOURSELF**, how many people camped on your site are in each of the following age and gender groups?

AGE CATEGORY	MALES	FEMALES
Number less than 13 years old	#_____	#_____
Number 13 to 17 years old	#_____	#_____
Number 18 to 29 years old	#_____	#_____
Number 30 to 39 years old	#_____	#_____
Number 40 to 49 years old	#_____	#_____
Number 50 to 59 years old	#_____	#_____
Number 60 to 64 years old	#_____	#_____
Number 65 and older	#_____	#_____

13. Does anyone camped here have a physical impairment that seriously limits at least one major life activity?

____ Yes ____ No ____ Not sure

14. If yes or not sure, please describe their disability.

_____

15. Does anyone on your site have or qualify for a handicapper vehicle permit or license plate?

____ Yes ____ No

16. In which of the following activities did or will **YOU OR ANY PERSON FROM YOUR CAMPSITE** participate during your stay? Check **ALL** that apply.

_____ Fishing from a boat	_____ Swimming	_____ Non-food shopping
_____ Boating	_____ Fishing from shore/wading	_____ Visit other campers
_____ Hiking	_____ Nature observation	_____ Visit historic site
_____ Mountain biking	_____ Visit friends or relatives	_____ Off road vehicle use
_____ Road biking	_____ Canoeing	_____ Eat in a restaurant
_____ Scout/bait for hunting	_____ Picking mushrooms/berries	_____ Sightseeing

17. How much did you and those camped at your site spend **during the last 24 hours in and within 20 miles of this campground**? Please do not leave any blank spaces, write "0" to indicate no spending for any category.

Vehicle related (gas, oil, trip related repair, etc.)	$_____
Restaurant and bar meals and drinks	$_____
Grocery or convenience store food, drink, or ice	$_____
Sporting goods (bait, camping gear, etc.)	$_____
Lodging fees (camping fees, motel if you stayed nearby)	$_____
Recreation activities (golf, canoe rental, etc.)	$_____
All other items (film, souvenirs, clothing, etc.)	$_____
TOTAL	$_____

18. Please rate your experience with **THIS CAMPGROUND, THIS VISIT** on the following factors. A 5 is very good, a 4 is good, a 3 is average, a 2 is poor, and a 1 is very poor. Please **CIRCLE** your rating for EACH factor.

	RATING				
	VERY POOR	POOR	AVERAGE	GOOD	VERY GOOD
First Impression of campground	1	2	3	4	5
Natural setting	1	2	3	4	5
Cleanliness of campsites	1	2	3	4	5
Cleanliness of restrooms	1	2	3	4	5
Sense of safety and security	1	2	3	4	5
Others obeying the rules	1	2	3	4	5
Helpfulness of employees	1	2	3	4	5
Your overall rating	1	2	3	4	5

19. Would you recommend camping her to others? ____ Yes ____ No ____ Maybe

20. What could campground managers do to improve your experience at this campground?

_____

APPENDIX

SECTION III. YOUR OPINIONS ABOUT CAMPGROUND MANAGEMENT ISSUES

21. Currently, only conservation officers have the authority to enforce state forest recreation rules such as nighttime quiet hours, payment of fees, restrictions on vandalism and littering, etc. in campgrounds. These officers typically number 2 per county. They also have other duties including natural resource , fish and game and environmental law enforcement on all lands.

The State Forest Recreation Advisory Committee, a citizens advisory group required by law, has recommended that selected SFCG managers be trained and certified as rangers (similar to Michigan State Park rangers) with legal authority to enforce state forest recreation rules as well as maintain the campgrounds. The committee's rationale is to increase efficiency and public service. Campground managers would not be involved in natural resource, fish and game and environmental law enforcement. Conservation officers would still enforce state forest recreation rules as their other duties permitted.

Do you support this proposal? ____ Yes ____ No ____ Undecided

22. The Americans with Disabilities Act requires that public facilities like campgrounds provide reasonable accommodation for those with disabilities. However, funds to do this are very limited. All needs cannot be met for many years. Managers have two basic options. Please check the one you prefer.

____ Renovate entire selected campgrounds so the range of facilities (bathroom, well, boat launch, campsites, road system, etc.) are all accessible in that location while doing nothing in other campgrounds

____ Regularly replace facilities in any campground as they wear out with new, accessible facilities whether the rest of the campground or the topography is accessible.

23. Currently, camping fees provide more than half of the budget for SFCGs. Other funds come from the gasoline tax on boat fuel that helps maintain the water access sites in the campgrounds and general tax monies (i.e. State income taxes). The sighed, groomed, maintained non-motorized pathways in state forests that serve mountain bikers, hikers, horse back riders and others are currently paid for by campground fees, volunteers and general taxes and no fees are assessed of pathway users. Those who camp in state forests away from campgrounds also pay no fees. Costs of clean up litter, repair environmental damage, etc. caused by this camping are paid by campground campers and general tax dollars.

The amount of general tax money for campgrounds, pathways, and state forest management in general is likely to be stable or shrink over the next few years. The State Forest Recreation Advisory Committee has recommended that a fee be charged to those using groomed, signed and managed non-motorized pathways and those camped in state forests away from campgrounds. All

monies collected would be delegated to the management of these sites and activities and to reduce the cost to the campground budget. Do you support:

An annual fee for pathway users over 16 to help maintain pathways? ____Yes ____No ____Undecided

A fee for camping outside of campgrounds in state forests to help maintain this open land. ____Yes ____No ____Undecided

The DNR would also like you opinion on nightly campground fees for SFCGs like the one you're in today. Do you support:

A $1 increase in camping fees at all SFCGs to improve campground maintenance? ____Yes ____No ____Undecided

The 50% camping fee discount for registered campers 65 and over? ____Yes ____No ____Undecided

Higher fees for waterfront sites and lower fees for non-waterfront sites? ____Yes ____No ____Undecided

Higher fees for heavily used campgrounds and lower fees for lightly used campgrounds? ____Yes ____No ____Undecided

SECTION IV. QUESTIONS ABOUT YOU, THE REGISTERED CAMPER

24. Where is your principal home? _____County_____State____Zip_____

25. Are YOU: ____Female ____Male

26. How old are you? ____Years Old

27. Are YOU: ____White ____Black ____Asian ____Native American ____Hispanic ____Multi-racial

28. Which ONE best describes YOUR outside of the home employment status?:
____Employed Full Time ____Employed Part Time _____Unemployed ____Retired

29. In 1994, what was your **TOTAL HOUSEHOLD INCOME** (before taxes)?

____Less than $20,000	____$60,000 - $79,000
____$20,000 - $39,000	____$80,000 or more
____$40,000 - $59,000	____Choose not to answer

Thank you. Your responses will help shape the direction of the Michigan SFCG system. If you have any further comments for me, please write them below. They will become part of the information passed on to the DNR and will not be connected with your name.

If you wish to comment directly to the campground managers please write you comments below, detach at the dotted line and mail them or call:

DNR Forest Management Division

Forest Recreation Section

P.O. 30452

Lansing, MI 48909-7952

(517) 373-1275

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