Longitudinal Monitoring of Public Reactions to the U.S. Forest Service Recreation Fee Program

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Abstract: Natural resource managers need to better understand the impact of fees on outdoor recreationists. The debate about recreation fees involves both operational issues such as revenue use and social issues such as justice and fairness. The recreation fee program of the US Forest Service is over ten years old and it is now possible to gauge some of the longitudinal effects of fees and fee communication programs. This paper presents ongoing research to provide monitoring of the recreation fee program in the Pacific Northwest region of the United States. Surveys of residents in Washington and Oregon were conducted in 1999, 2001, and 2003. This paper highlights findings that describe public perceptions about the fee program over a six year period. The key issues are: Shifts in public attitudes about fees, perceptions about the balance between taxes and fees, equity and implementation concerns, and revenue uses. Results suggest that public attitudes have remained relatively stable and that in some important ways negative reactions have been reduced. The paper concludes with some implications from these results, notably the practicality and relevance to managers of using user assessments.

Zusammenfassung: Für Manager natürlicher Ressourcen ist es wichtig, die Auswirkungen von Gebühren auf Erholungssuchende besser zu verstehen. Die Debatte über Gebühren für Serviceleistungen/ Angebote im Erholungsbereich beinhaltet zwei Aspekte: einen betriebswirtschaftlichen, etwa hinsichtlich der Verwendung der Einnahmen, und einen sozialen, wie Gerechtigkeits- und Fairnessfragen bei ihrer Erhebung. Das Gebührenprogramm des US Forest Service existiert seit über 10 Jahren. Dieser Zeitraum erlaubt eine Zwischenbilanz über die Langzeitwirkungen von Gebühren auf Erholungssuchende und der begleitenden Kommunikationsprogramme zu ziehen. Dieser Bericht beschreibt aktuelle Forschungsaktivitäten über erholungsrelevante Gebührenprogramme im pazifischen Nordwesten der Vereinigten Staaten. Für einen Zeitraum von sechs Jahren wird dargestellt, wie solche Gebührenprogramme öffentlich wahrgenommen werden. Befragungen von Einwohnern der Staaten Washington und Oregon wurden in den Jahren 1999, 2001 und 2003 durchgeführt. Schlüsselthemen waren: Wandel der öffentlichen Einstellung gegenüber Gebühren, Wahrnehmung eines Gleichgewichts zwischen Steuern und Gebühren, Gleichheits- und Implementierungsaspekte sowie Fragen über die Verwendung der Einnahmen. Die Ergebnisse deuten darauf hin, dass die Einstellung der Bevölkerung zu Gebührenprogrammen im Erholungsbereich über die Zeit relativ stabil blieb und negative Reaktionen durch Kommunikationsprogramme vermindert werden konnten. Abschliessend wird auf die Relevanz und Praktikabilität solcher Meinungsumfragen für Ressourcen-Manager hingewiesen.

INTRODUCTION

Charging fees for recreational access is not entirely a new idea. Places such as National Parks have charged entrance fees for almost a hundred years. Various other agencies have instituted fees for a range of services such as parking, site entry or use permits, especially for developed sites such as campgrounds, beaches, boating access and at times less developed areas such as wilderness areas. Some of these are not "recreation fees" per se, but often the public does not make distinctions among the categories and rationales agencies use to justify fees and other charges for recreational use. Our focus here is on the access fees implemented by the US Forest Service (USFS) in the Pacific Northwest. Initially this was part of a three year pilot "fee demonstration" program legislatively established in 1996. After several extensions, it was made a permanent authority under the Federal Lands Recreation Enhancement Act (FREA) in 2004 (Public Law 108-447). The dual purposes of this Act were to improve the situation on the ground through the use of revenues to reduce maintenance backlogs, especially for infrastructure such as roads, toilets, etc., and to establish a balance between free provision of recreation opportunities and a system where those who directly benefit pay some of the cost of provision. This program attempts to strike a balance between a pure public lands doctrine that includes free access and a more business-oriented model that emphasizes the exchange of goods or services. This has not been without controversy. Some have argued that fees are a necessary part of modern land management systems (McCarville 1995; Warren & Rea 1998) while others have seen them as simply antithetical to agency purposes (Dustin *et al.* 2000; Bengston & Fan 2001). There have been other controversial aspects as well, notably surrounding questions of equity in public services provision (Nyaupane 2004; More & Stevens 2000), how taxes and fees should be balanced and used (Vaske *et al.* 1999; USGAO 2003), public response to a shift in managerial emphasis (Schneider & Budruk 1999), and whether managers incorporate public monitoring or evaluation such as we present in this paper (Absher *et al.* 1997). There is much more literature available on these topics and the reader is directed to more comprehensive reviews for greater detail (Nyaupane 2004; USGAO 1998; Rey 2005)

The US Forest Service authority to charge recreation fees has been in place for over ten years, although some places were added or deleted in the early years as the program grew. New fees were initiated at many sites in 1997 or slightly later as decisions about how to implement the authority were made. Some sites, e.g. scenic overlooks, were deleted from the program over time as the criteria for implementation evolved. Recreation fees are charged for a variety of uses, such as parking at trail heads, camping at developed camp sites, or launching a boat at a developed ramp. Typically, daily fees range between $5 for parking or using a launch, to a higher and more variable fee (e.g., $8 to $20) for camping that depends on the level of development at a specific campground or campsite. As the fee program developed it has generated substantial revenue that has been used locally to improve the recreation infrastructure and reduce maintenance backlogs (USDA 2006). However, some of the controversial aspects may still remain as concerns in the minds of the users and little research has been done to better understand preferences in relation to recreation fees over time.

The purpose of this investigation is to determine the extent to which the public recognizes and supports USFS efforts to establish a recreation fee program. In particular, we want to know if support and preferences for the USFS fee program have changed over the first six years of implementation in one USFS region, the Pacific Northwest. Because fees involve social issues related to taxation, fairness, management options, revenue use, and equity, we address the following six issues:

1. General acceptability of recreation fees,
2. The role of user fees in relation to general appropriations, i.e., fees versus taxes,
3. General preferences for management under budget constraints,
4. Equity of access concerns, especially for low income groups,

5. Management (implementation) options to ensure fairness,
6. Preferences for fee revenue use (environment, facilities, etc.).

METHODS

One key aim of this research was to enable longitudinal evaluation of the recreation fee program. Accordingly, some survey questions were replicated in each wave of the survey in order to track changes in the public's attitudes. The data are from three independent telephone surveys. Each survey was conducted in the fall and spaced two years apart. Adults from the general population in the states of Washington (WA) and Oregon (OR) were targeted. Random digit dialing was conducted each time by professionally trained survey staff, who were monitored for consistency and compliance to accepted phone survey sampling protocol (Dillman 2000). Adult residents were screened for an interest in outdoor recreation and visitation to public lands (parks or forests) in the past 12 months. For the purposes of this study, the response rate was defined as the number of completed or useable interviews divided by the number of eligible reporting units in the sample. Accordingly, the response rate for the 1999 survey was 52% (3199 households contacted, 1676 useable), the response rate for the 2001 study was 53% (3775 households contacted, 2005 completed interviews, 1989 useable), and the response rate for the 2003 survey was 32% (2200 contacted, 847 completed telephone interviews, 710 useable). Fewer were targeted in the final wave due to budget constraints and the inclusion of another state, which lowered the number of respondents for WA and OR. Thus the entire database has 4,375 respondents. Because the analysis below keeps each wave separate, and each sample was internally consistent and representative of the target population, there was no need to use case weights.

RESULTS

First we report on the general socio-demographic breakout of the samples (Table 1). The samples do have some differences; notably, the respondents were older in the 2003 survey and more evenly balanced in gender in the 1999 sample. In all years the ethnic makeup of the sample was dominated by White/Caucasian. This profile is similar to the adult population in the states of WA and OR, but cannot be directly compared because of the screening questions that focused on only those with an interest in and use of public lands. No attempt was made to adjust the results to account for the effect of these differences on the variables of interest.

Table 1: Socio-demographic comparison by survey year, in percent.

	1999	2001	2003
Age (>40)	54.4	61.1	66.3
Gender (M)	51.3	57.1	56.3
White/Caucasian	84.7	88.5	86.4

Next we present results on overall fee acceptability and revenue use (Table 2). The items were worded: "There is nothing wrong with charging fees to recreate on National Forests" and "Charging fees helps the Forest Service to protect the land and provide recreation opportunities". Each employed a five-point Likert type scale that ranged from strongly disagree (1) to strongly agree (5). The first question measures the acceptability of charging fees for recreation activities (Fees OK?). The results were generally consistent between the three surveys. Means ranged from 3.05 to 3.31, and although the differences are statistically significant (p<.05), the initial measurement of 3.16 dropped to 3.05 then rose to 3.31, suggesting the public opinion has stayed in the middle, or slightly positive range throughout. Also in TABLE 2 is the general attitude toward the idea that fees are helpful to manage recreation sites (Fees help). Here there has been a steady increase over the years, with a total increase of a quarter of a scale point. This pattern of differences is statistically significant (p<.01) and may in part be attributed to increasing public acceptance of the fee program. Although the difference is real, it is rather small, suggesting the public remains in a moderately positive, stable position and that support is increasing slowly.

	1999	2001	2003	ANOVA test of means
Fees OK?	3.16	3.05	3.31	F=5.90, p<.05
Fees help	3.54	3.66	3.79	F=4.98, p<.01

TABLE 2: Acceptance of fees and general attitude toward their usefulness.

Next we report on a second major issue: the public's opinion about the "proper balance between taxes and user fees" for operating recreation areas (TABLE 3). The dominant response in all years was equal support from taxes and user fees (43.6 to 47.9 percent) with a noticeable rise in support for taxes in 2001. Although there was a slight trend in 2001 and 2003 towards increasing the proportion derived from taxes and a lower proportion who support a purely user fee source in 2003, the general pattern suggests that a balanced approach is desired with some emphasis on taxes as contributing the larger share.

Fees versus taxes	1999	2001	2003
Entirely from taxes	10.3	9.7	10.2
Mostly from taxes	20.7	29.2	26.2
Equally from taxes and user fees	47.9	43.6	47.1
Mostly from user fees	15.1	11.8	13.7
Entirely from user fees	6.0	5.8	2.9
TOTAL	100.0	100.1	100.1

Chi square = 41.8, p< .001

TABLE 3: Preference for fees or taxes as revenue source, in percent.

Third, we looked at site management options. Using the same 5-point response scale as before respondents were asked about the consequences of budget tightening, namely if money is not available should the managers close a site or keep it open and/or accept some site deterioration (TABLE 4a). There are low ratings for either option, with means ranging from 1.69 to 2.12, which correspond to disagree to somewhat strongly disagree. The level of disagreement does diminish with time and, although each series is statistically very significant, this is not a large change in practical terms. Closing a site is slightly more acceptable than letting it deteriorate, but the lack of support for either is consistent and obvious.

	1999	2001	2003	ANOVA test of means
a. Site options				
Close site?	1.84	2.12	2.10	F=21.62, p< .001
Let deteriorate	1.69	1.83	1.77	F=6.40, p< .001
b. Equity issues				
Only rich?	3.89	2.59	2.58	F=32.9, p<.001
Should not use	1.96	1.87	1.91	F=1.66, p = ns

TABLE 4: Agreement with site options, equity issues, management issues and revenue use questions.

c. Management options				
No fee sites?	4.18	4.17	4.03	F=6.39, p= ns
Free day?	3.82	3.86	3.84	F=1.15, p=ns
Developed only?	3.37	3.58	3.54	F=11.24, p< .001
d. Revenue use				
Natural Environment	4.59	4.38	4.43	F=13.617, p< .001
Restrooms	4.25	4.35	4.33	F=2.892, p= ns
Trails	4.04	4.08	4.11	F=0.675, p= ns
Universal access	3.55	4.06	3.89	F=58.665, p< .001
Recreation information	3.40	3.70	3.61	F=21.357, p< .001

Fourth, we report on equity issues. From the above discussion it seems obvious that most people felt that charging some fees is acceptable and helps the Forest Service do a better job of protecting the land and providing recreational opportunities. However, as a public agency there are social equity considerations to incorporate as well. The next section of results (TABLE 4b) shows the responses to two aspects of this issue, namely whether charging fees makes it so that some people cannot use the public lands and whether people who cannot pay the fees should not use the forest. Question wording was: "Charging fees on National Forests will make it so that only the rich can use the best areas" (Only rich?) and "If someone cannot afford to pay the fee, they should not use the National Forest" (Should not use). The second question remains stable over time with moderately strong disagreement in all three surveys (means of 1.87 to 1.96, differences not statistically significant). The other question shows a large, significant shift. Initially respondents mainly agreed that fees would have such an exclusionary effect (mean= 3.89) but this has dropped precipitously to 2.58 and remained there. Thus it seems that most people would now disagree that charging fees will make it so only the rich can use the National Forests. A combination of personal experiences and information effects has likely contributed to this shift.

Fifth, there are three questions that look at management options to ameliorate equity and access issues (TABLE 4c). First we asked if some sites should always be free, i.e., "Set aside some areas of the National Forest where no fees are charged" (No fee sites?). Strong and continuing agreement (means from 4.18 to 4.03) was evident for this idea. Secondly respondents were asked if some days should be free: "Make one day a month free" (Free day?). Here there was moderately strong and consistent agreement (3.82 to 3.86). And finally we asked if fees should be restricted to developed sites only: "Do not charge fees for use of National Forest lands, except for activities like camping at developed sites" (Developed only?). Again positive and consistent agreement (3.37 to 3.58) was recorded. The pattern is not statistically significant for the first two and highly significant for the third item. Thus the public opinion seems to be that some accommodation to equity and access is important and should be part of the fee management scheme, especially the principle that it is appropriate to charge for sites that include infrastructure developments.

The sixth and final bank of questions focused on residents' priorities on how fee revenue should be spent (TABLE 4d). These were purposely diverse, covering natural resource management "Maintain the quality of the natural environment" (Natural environment), restroom maintenance (Restrooms), trail maintenance (Trails), improvements for the disabled, i.e., "Provide assistance to ensure universal access" (Universal access), and providing recreation information (Recreation information). All were agreed to, and very strongly at times, with significant differences over the years. Maintaining the quality of the natural environment was the top rated priority, followed closely by maintaining restrooms and trails. Support for universal access improvements and recreation information has been more volatile, and overall has increased slightly over the years. In the end the mean scores seem to be converging slightly with a smaller range (3.61 to 4.43 in 2003 versus

3.40 to 4.59 in 1999). Although the strongest support is for spending on natural resource management projects and the weakest of these five is for information campaigns, all five options are moderately to strongly endorsed, with means always above 3.4. This suggests that providing multiple uses for the revenue would be a successful management strategy.

Summary of Results

In general, residents agree that fees are both acceptable and useful, and they strongly preferred imposing fees to closing sites or allowing them to deteriorate (when funds were inadequate). They do expect some balance between fees and taxes, and in all three surveys, supported a variety of implementation options designed to enhance the fairness of the fee program, such as setting aside some areas where no fees are charged or making certain days free of charge. The initial concerns about recreation fees being regressive and making the forest only accessible to the rich have been mollified substantially. Finally they had no problems with a broad use of fee revenue to support resource, facility and communication aspects of forest recreation management.

CONCLUSIONS

Results of the fee monitoring surveys suggest that public support for Forest Service recreation fees has been rather stable. There is some evidence of changes in opinions, and generally these have been in the positive direction. This implies that the recreation fee program has been successful at communicating the reasons behind the program and the benefits that have come from the program. Overall, changes have been slow, yet steadily positive. If this experience holds up elsewhere in the US, or perhaps internationally, managers cannot expect fast or dramatic changes in acceptance.

RECOMMENDATIONS FOR PRACTICE

Repeatedly obtaining data from affected users is important for fee program managers because it provides empirical evidence supporting the overall program direction with respect to public acceptance and preferences and leads to better informed decisions. The results above were used to fine tune the USFS fee program during the demonstration period and influenced the ultimate decision to legislatively make the pilot program permanent in late 2004. For example, this legislation specified which types of fees could be used and the types of areas at which fees could be charged, based on the public's response to the tested fee programs.

One limitation is that these results are based on population level data. Managers may need to distinguish the general population served from known fee paying groups. Comparisons of those who actually purchased a pass against those who support the idea but may not have actually paid a fee recently would add substantially to the discussion over user fees. Both perspectives are needed to make a complete assessment of market conditions and practical effects.

Another limitation is that this data applies to the USFS region. While it may be that these results are the same for other places we cannot conclude that with certainty. Other USFS regions, and especially managers in other countries, may find different social mechanisms that affect support, acceptance and rates of change.

Overall, the repeated waves of surveys have provided valuable information that was used to track public reactions and make important improvements to the fee program. We encourage program managers to pursue longitudinal surveys with an applied focus to not only provide administratively needed benchmarking and performance measures, but also to play an active role in generating positive outcomes for agency programs that rely on public interaction, acceptance, and compliance.

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