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Support for Wilderness Recreation Fees: The Influence of Fee Purpose and Day versus Overnight Use

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ABSTRACT: This paper examines public support for new user fees established at the Desolation Wilderness in California as part of the Fee Demonstration Program. Traditional approaches to fee policy evaluations have typically focused on economic or revenue issues and equity impacts of various pricing strategies. Support for fees has been shown to vary by users in terms of attitudes toward fees, nature of usage or behaviors, and demographics. Fee support may also vary by the type of recreation or resource area, especially in the case of dispersed recreation areas such as wilderness or other sites, which have historically been provided by tax dollars. To evaluate the role of new fees on public support for spending revenues, this paper compares ratings of support for the use of fees for 19 different management activities, assuming two different rationales across two user group samples. One rationale asks about support for fees to improve upon the current level of service, while the other asks about support for fees to provide the current level of service. A split sample was used to test for effects associated with the two rationales. The list of management activities was developed jointly by managers and researchers to gather input on spending priorities. Data came from a 1997-98 study which surveyed campers and day users. The results suggest general support for wilderness use fees, with strongest support for restoration of human damaged sites, litter removal, and related information provision. Unlike most customers, the wilderness users surveyed in this study, particularly campers, gave more support for using fees to maintain or provide the current level of service rather than to improve service. Differences between campers and day users for both rationales on particular management activities are presented, as well as a rank order of management activities. Managers can use these results to determine the platform or positioning of spending new revenues. The results show wilderness users prefer a maintenance spending program to restore wilderness conditions over a development and new services spending program. Managers can also begin to match the agencies' project priorities with customers' needs and desires. Overall, this paper provides a case study of customer involvement in fiscal policy.

KEYWORDS: Recreation fees, pricing, wilderness, service levels, multiple user groups.

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Introduction

The U.S. Congress has directed federal land management agencies to examine the feasibility of using recreation use fees to recover a greater proportion of the costs of operating and maintaining recreation programs. This legislation authorizes fees for recreation on developed and undeveloped lands, such as Congressionally designated wilderness areas. This represents a significant departure from past fee collection practices, which have generally applied fees only to developed sites where there are significant investments in facilities and infrastructure. Wilderness areas, by contrast, contain little in the way of facilities and infrastructure and lack a history of recreation use fees. In response to the new policy, the U.S. Forest Service in the summer of 1997 established Desolation Wilderness Area in northern California as a demonstration site in order to evaluate public responses to wilderness use fees. The purpose of this paper is to report on some of the findings of that evaluation effort.

From a business or marketing approach, the evaluation of pricing strategies typically focuses on the impact to revenue. As a result, the major consideration in pricing is the degree to which consumers will accept higher prices (McCarville, 1996a; Becker, Berrier, & Barker, 1985; Fesenmaier & Schroeder, 1983). However, as a matter of public policy, any departure from the well-established history of subsidized federal recreation programs is likely to raise questions among the public regarding the rationale and purpose for the introduction or increase of fees (McCarville, Reiling, & White, 1996; McCarville, 1995; Walsh, Peterson, & McKean, 1989; McCarville & Crompton, 1987). This is especially likely when fees are applied to previously unpriced services such as access to relatively undeveloped sites like wilderness.

One public reaction to the promulgation of fees for wilderness access is concern about fairness. Fairness has received comparably little attention in either economics or marketing (McCarville et al., 1996; Kahneman, Knetsch, & Thaler, 1986). Distinct from the equity of price increases (e.g., the impact to economically disadvantaged groups—an important subject in its own right, but not the subject of this study), fairness has to do with consumers' perceptions of the reasons or justification for price increases. For example, during the oil crisis of the 1970s, the public thought the increase in gasoline prices was an unfair attempt by oil companies to exploit the embargo by OPEC. Though consumers are inclined to judge prices on the basis of fairness, the concept of fairness has had essentially no role in standard economic models of the efficient, profit-maximizing organization. As Kahneman et al. (1986) put it: "The economic agent is assumed to be law-abiding but not fair—if fairness implies that some legal opportunities for gain are not exploited" (p. 102). They conclude that perceptions of fairness are strongly influenced by how the issue of the price increase is framed. For example, with respect to housing rental prices, they found demand-induced price increases, not resulting from an increase in costs, tend to be judged as unfair. If consumers are inclined to hold private firms

to standards of fairness, then it seems reasonable to expect them to hold public service organizations to at least as high a standard. Besides fairness, many other factors influence how providers set prices such as cost recovery, surplus maximization, competition, and manufacturer-suggested price (Crompton & Lamb, 1986).

In the past ten years, studies have examined public and consumer perceptions of new or increased fees and the rationale for price adjustments. These studies suggest recreationists' reactions to price increases are complicated by a history of subsidized prices. For example, McCarville and Crompton (1987) make a distinction between willingness-to-pay (a measure of consumer demand) and reference price (what consumers expect to pay), with the latter strongly influenced by pricing history. They found that providing information to the public about delivery costs and the price of substitutes could increase the reference price because it draws attention to the "true" cost of delivering the recreation service. Similarly, McCarville (1996) found that the price last paid serves as an anchor or reference point influencing current price expectations. In other words, it appears that public acceptance of price increases are contingent on both pricing history and the justification of the increase.

Aside from perceived fairness, a second factor which may influence public reaction to wilderness fees is the nature and meaning of wilderness. The public value and purpose of wilderness is not just associated with its operation and maintenance as a recreation site, but pertains to broader goals of preservation and protection of nature (McCloskey, 1990). The question naturally arises as to how the fees might advance or detract from these preservation goals. In addition, the recreational value of wilderness is strongly associated with the "primitive" character of wilderness. Consequently, wilderness users may also be inclined to question how the money will be used in terms of maintaining or improving the wilderness experience. Based on the studies by McCarville and associates (McCarville et al., 1996; McCarville, 1996b; McCarville, 1995; McCarville & Crompton, 1987) suggesting people need a rationale for fee increases, one would expect that fee support will be related to the perception of getting more value for the money. That is, support should be greater if the money raised is seen as helping to improve service, to return a resource to a prior state of condition, or to cover unfunded expenses for operating the site. For wilderness, however, this may not be the case. Wilderness users who value primitiveness may not want "more" services and facilities. As a consequence, they may be less supportive of fees when the rationale given is the need for additional facilities and services that they consider unnecessary for a wilderness experience.

To evaluate public support for the new fee policy, particularly in an area managed for wilderness qualities, this paper examined wilderness users' support for using fee revenues for various purposes (e.g., providing information, staff training, ranger patrols, trail maintenance, litter removal). Specifically, this paper compares how day users and campers

evaluate uses of fee revenue under two alternative assumptions of service levels. One level is to "improve service" and the other is to "maintain the provision of existing services." The results will allow public recreation managers to consider fiscal decision making from the consumers' perspective.

Study Design

The Fee Policy and Desolation Wilderness

In response to the Fee Demonstration legislation, the Forest Service selected the Desolation Wilderness as one of the test sites and launched a comprehensive yearlong visitor survey to evaluate the public's response to the new fees. Established in 1969, the Desolation Wilderness is a 63,469-acre area located in the Sierra Nevada mountain range just west of the Lake Tahoe Basin in California. Lake Tahoe is a popular tourist and seasonal home resort area which is accessible to large urban populations in California (particularly people residing in the Sacramento Valley and the San Francisco Bay Area) and western Nevada (particularly Reno). Desolation's proximity to Lake Tahoe produces high proportions of tourist-oriented day users who make spontaneous decisions to visit the wilderness. It also produces a large local resident user group with well-established traditions of use. Many of the locals see the Desolation as their backyard playland or escape. The popularity and accessibility of Desolation to both local residents and more distant tourists were significant factors in its selection as a fee demonstration area. Also significant from a research standpoint, Desolation Wilderness has been the site of several previous studies which provide good historical data on use and user characteristics. Also facilitating the study, the area has a well-established permit system with high compliance, providing a convenient sampling method. Campers at Desolation have been required to obtain a permit since 1972, and limits on the number of permits available were established in 1978. Up to 50 percent of available permits are issued through a reservation system and there is a $5.00 fee for the reservation, justified by the extra administrative expense. The remaining permits are issued on a first-come, first-serve basis at no charge. In addition, day users are also required to get permits, although there are no limits on the number of day use permits issued. Day-use permit stations are located at main trailheads and near parking lots and are self-serve.

In response to the Fee Demonstration Program, the Forest Service established the following fee schedule at the beginning of the 1997 summer season:

$5.00 to reserve a permit (as before)
$5.00/night/person
$10.00/person/2 or more nights
$100/group maximum
$30 for an annual camping pass
$3/day (day use only) parking permit at the Eagle Falls trailhead.

The decision to use the Desolation Wilderness as a fee demonstration site received considerable local publicity. At the time the overnight camping fee policy was established, there was also some discussion of establishing a day-use fee. The decision on the day-use fee was postponed, but based on coverage in local newspapers and radio and direct public feedback given to Forest Service personnel, there appeared to be considerable local resistance to the proposal. Since the day-use fee was a policy alternative being considered, questions about day-use fees were included in the questionnaire.

Sampling Design

Following procedures established in a 1990 user study, overnight campers were sampled from the overnight permits issued at Forest Service offices of the Eldorado National Forest and the Lake Tahoe Basin Management Unit. Questionnaires were mailed to the individuals who requested a permit for an overnight Desolation visit to take place between June 1, 1997, and May 31, 1998. A similar sample of day-use permits was also drawn between July 1, 1997 and June 30, 1998. Surveys were mailed throughout the year shortly after the trip associated with the permit was to have been completed. Three follow-up mailings were employed. A postcard reminder was sent one week after the initial mailing. A second and even a third questionnaire were mailed two and four weeks later as needed.

The initial target sample size for day-use and overnight permits was 667 for each user group and each form based on the assumption a 75 percent response rate would be achieved (the 1990 study produced an 83 percent response rate). Given the annual average number of permits issued for the Desolation over the previous five years, permits were sampled using a constant interval of nine with a random start between one and nine (a different random start was used for each form). Due mostly to a smaller number of permits being issued than expected, the resulting sample sizes were lower than expected, but still quite adequate for statistical analysis. For campers, the sample size for Form A was 320 useable returned questionnaires out of 448 sent, for a response rate of 71 percent overall return rate. For campers using Form B, 314 useable questionnaires were returned out of 450 sent, for an overall response rate of 70 percent. For day use, the sample size for Form A was 632 surveys mailed with 382 returned (65%). For day-use Form B, 632 surveys were mailed with 407 returned (67%).

Variable Measurement and Data Analysis

Support for the wilderness fee was evaluated using a set of interval-scaled questions about 19 possible uses of the new fees. A five-point scale was used where "1" equals strongly support and "5" equals strongly opposed. The fee use list was developed during a team meeting with researchers and Forest Service managers and staff. Both groups were interested in how spending to either maintain current levels or to improve on current levels would be received by campers and day users. The number of possible spending categories precluded us from asking all 19 items twice

(i.e., maintain condition, improve condition), so a split-sample or two survey instruments was adopted. One-half of the day users and overnight campers were asked to respond to "improve upon the current level of the following services, facilities, and Desolation management/protection activities." The other half of the day users and overnight campers were asked to respond to "provide the current level or maintain conditions." In total, four forms of the questionnaire were developed (two forms for day use and two forms for overnight use). Figure 1 displays the two user groups, two conditions, and four samples or sub datasets. Group CA are campers who responded to improving conditions with the spending of fees, Group CB are campers who responded to maintaining conditions, Group DA are day users who responded to improving conditions, and Group DB are day users who responded to maintaining conditions. All groups are independent of each other.

Figure 1
Matrix of Respondent Groups

	Fee Purpose	
Recreation Users	Improve Current Conditions (Survey Form A)	Maintain Current Conditions (Survey Form B)
Campers	Group CA, n=448	Group CB, n=314
Day Users	Group DA, n=382	Group DB, n=407

In a design that used various forms of the questionnaire to test the effects of different word phrasing (i.e., improve, maintain), we were concerned the groups might be different in terms of demographics and/or there might be an overall impact of the form on responses. To evaluate the impact of the condition or word phrasing on responses, we compared campers and then day users on a set of questions that were the same on both forms. Most of these questions were asked of both recreation groups and were found before the questions where the condition was manipulated.

Specifically, overnight users only were asked to rate their feelings on the statement "Overall, the Desolation camping fees are a good thing" using a five-point strongly agree/strongly disagree Likert scale. Attitudes toward the amount of the camping fee on a five-point scale where "1" equals way too high, "3" equals about right, and "5" equals way too low, was asked just with the overnight sample. Day users were asked questions more appropriate to their visit and assessed fees. They were asked about whether the daily parking fee was too high, about right, or too low, as well as how the fees affected their enjoyment with the recreation experience on a scale where "1" equals greatly reduced enjoyment and "9" equals greatly increased enjoyment. Finally, all respondents were asked to rate their

acceptance of camping and day-use fees on a scale ranging from -2 to +2 (completely unacceptable to completely acceptable).

As shown in Table 1, we found no form effect to exist (i.e., no significant differences on conditions) for either sample (campers or day users). This allowed for the assumption that the form and/or a slight alteration of the question order did not cause statistical differences between the two subsamples within campers and day users. This meant we could be fairly confident the two factors we evaluated, that is, user group and fee purpose, were causing changes in ratings of management actions and not some influence brought on by the split sample design.

Table 1
Test of Form Effect, Desolation Wilderness Users, 1997-1998

	Campers			Day Users		
Items to test form effect:	Improve Group CA (N=320)	Maintain Group CB (N=314)	Independent sample T-test with significance	Improve Group DA (N=382)	Maintain Group DB (N=407)	Independent sample T-test with significance
Overall the fees are good thing [a]	2.41	2.39	n/s	n/a	n/a	–
Camping fee amount [b]	2.54	2.55	n/s	n/a	n/a	–
Daily parking fee amount [b]	n/a	n/a	–	2.79	2.74	n/s
Effect of parking fee on enjoyment [c]	n/a	n/a	–	4.68	4.72	n/s
Acceptance of wilderness camping fees [d,e]	.84	.79	n/s	.69	.66	n/s
Acceptance of wilderness day-use fee [d,f]	-.09	.03	n/s	.31	.15	n/s

n/s=no significant group differences

n/a=question not asked of that sample

[a] Scale is "1" equals strongly agree and "5" equals strongly disagree.

[b] Scale is "1" equals way too high, "3" equals about right, and "5" equals way too low.

[c] Scale is "1" equals greatly reduced enjoyment and "9" equals greatly increased enjoyment.

[d] Scale is "-2" equals completely unacceptable and "2" equals completely acceptable.

[e] ANOVA test across four groups $F(3,1169)=1.1, p=.34$, no group differences were significant.

[f] ANOVA test across four groups $F(3,1170)=3.6, p=.014$, groups CA and DA were different at $p=.012$ level; however, no differences between campers or day users.

Table 2
Demographic Characteristics, Desolation Wilderness, 1997-1998

	Campers	Day Users
Gender:[a]		
Men	75%	63%
Women	25%	37%
Age (mean)[b]	39 yrs. old	43 yrs. old
Education (mean)	16 yrs.	16yrs.
Income (in thousands, mode)	$50-$75 (24%)	$50-75(27%)
Ethnicity:[c]		
White	91%	92%
Asian	2	3
Hispanic	2	2
Residential proximity:[d]		
Local	14%	18%
Regional	25	23
Out-of-area	61	59

[a] $X^2=24.4$, $p<.001$
[b] $t=5.8$, $p<.001$
[c] Other race/ethnicity groups with fewer people are not shown.
[d] Locals had zip codes from the Tahoe Basin area and Sierra Nevada mountain counties immediately adjacent to the California side of Lake Tahoe. Regions were from the Reno-Carson-Minden area of Nevada, or the foothills and central valley areas (e.g., Sacramento) on the California side of the Sierra Nevada mountain range. Out-of-area were all remaining respondents.

In addition to form effects tests, demographic profiles using descriptive statistics were created to further understand whether these groups we were comparing were relatively the same. Table 2 describes the respondents in demographic terms. Men were more likely to be respondents in the study with men making up a greater proportion in the camper sample than the day user sample ($X^2=24.4$, $p<.001$). The average age of the respondent was 39 years old in the camper sample and 43 years old in the day-use sample ($t=5.8$, $p<.001$). Both groups were represented by an average education level of a college degree (16 years) and a modal income category of $50,000 to $75,000. The largest racial group was white. Both samples were predominantly from out-of-the-area (farther than Reno, Sacramento, or other nearby surrounding areas). While age and education were found to be different across the two user samples, we did not explore how these two variables might have influenced the two conditions or responses to management actions.

A multiple dependent variable model (MANOVA) and a series of analyses of variance (ANOVAs) were used to determine whether wilderness campers are different from wilderness day users regarding the application of user fees by local Forest Service units. In the MANOVA model, one factor in the models was day users versus campers. The other factor in the model was the framing of the fee purpose (improve vs. maintain facilities and services). For the ANOVAs, a group variable was used with four categories (i.e., CA, CB, DA, DB). Tukey's multiple comparison post-hoc tests were used to assess which groups were different from each other. Given the large number of tests, the alpha level of .05 was divided by the number of ANOVA equations, thus a very conservative alpha level of .003 was used to judge significant differences between groups.

Results

A MANOVA test was used to determine whether the group classification (campers vs. day users) and/or purpose classification (improve vs. maintain) were effective in identifying differences across all 19 management activities. Both group (Wilks Lambda=.88, F=8.7, df=19,1237, p<.001) and purpose (Wilks Lambda=.83, F=13.1, df=19,1237, p<.001) classifications were significant. The interaction factor was not significant.

Table 3 reports the results of analysis of variance statistics on 19 management activities by user type and purpose of fees. In Table 3, means are reported for all groups, in addition to the ANOVA F-test and corresponding test to ascertain significant differences between the groups. Post hoc tests were used to detect which groups were different from each other. An additional notation used is less than (<) and greater than (>). The closed point of the sign suggests the group is less supportive of the management activity, whereas the open sign suggests the group is more supportive of the management activity.

Table 3 shows nine of the 19 management activities considered for funding produced a significant difference ($p \leq .003$). These nine activities include information about recreation opportunities, reducing impacts, access to information at visitor centers, trailheads, rangers posted at trailheads, and using Internet; maintenance on the trails and trailheads; and finally, management for solitude experiences. The ten activities which were not rated differently between the four groups were information for interpretation, rules and regulations, health and safety; training for visitor center and ranger staff; patrolling at parking areas for safety reasons; rangers in high use areas; more efficient permit reservation system; restoring human-damaged sites; and removing litter in the wilderness and at trailheads.

Campers who were asked to consider the "maintain" scenario generally held greater support of the management activities than the campers who were asked to consider the "improve" scenario. This relationship held up in all instances where a significant difference was found between the two camper groups. On four other items which held significant ANOVA results (information about other wilderness opportunities, information to reduce

impacts, access to information with ranger hours posted at trailheads, information on the Internet), the two camper groups rated the scales approximately the same.

Table 3
Mean Comparisons for Campers and Day Users on Management Activities, Desolation Wilderness, 1997-1998 [a]

	Campers		Day Users			
Fees used for:	Improve Group CA	Maintain Group CB	Improve Group DA	Maintain Group DB	ANOVA TEST with degrees of freedom and significance	Tukey Post Hoc Tests
Information about other wilderness recreation opportunities in the area	2.90	2.63	2.67	2.57	F=5.40 df=3,1362 p=.001	CA<DB***
Information about ways to reduce impacts in wilderness	1.91	1.90	2.13	2.18	F=7.23 df=3,1373 p=.000	CB>DB**
Interpretive information (wildlife, natural history)	2.42	2.39	2.25	2.28	F=2.10 df=3,1370 p=.099	
Information about rules and regulations	2.53	2.30	2.52	2.46	F=3.19 df=3,1365 p=.023	
Information about health and safety for wilderness travel (sunburn, drinking water, hypothermia, situations with animals)	2.58	2.33	2.51	2.50	F=3.06 df=3,1370 p=.027	
Training for visitor center and ranger staff	2.53	2.37	2.44	2.39	F=1.36 df=3,1361 p=.253	
Patrol at trailhead parking facilities for safety/security	2.55	2.44	2.47	2.47	F=.51 df=3,1364 p=.678	
Access to existing information during open hours of visitor center	2.96	2.31	2.75	2.42	F=29.03 df=3,1348 p=.000	CA<CB**** CA<DB**** CB>DA**** DA<DB****
Access to existing information at trailheads	2.63	2.20	2.30	2.15	F=14.80 df=3,1358 p=.000	CA<CB,DA, DB****

Table 3 (Cont.)

Fees used for:	Campers: Improve Group CA	Campers: Maintain Group CB	Campers: Improve Group DA	Day Users: Maintain Group DB	ANOVA TEST with degrees of freedom and significance	Tukey Post Hoc Tests
Access to existing information with ranger hours at trailheads	2.85	2.64	2.65	2.55	F=4.71 df=3,1350 p=.003	CA<DB***
Access to existing information posting on the Internet/ WWW	2.76	2.46	2.77	2.62	F=4.88 df=3,1356 p=.002	CB>DA*
Wilderness rangers at high use areas in the Wilderness	2.30	2.04	2.25	2.13	F=3.87 df=3,1368 p=.009	
Efficiency of the permit reservation system	2.62	2.35	2.56	2.55	F=3.94 df=3,1355 p=.008	
Trail maintenance (clearing trees, erosion control)	2.13	1.71	2.05	1.88	F=10.90 df=3,1372 p=.000	CA<CB**** CB>DA****
Maintenance of trailhead rest room facilities	2.66	2.19	2.20	2.01	F=26.45 df=3,1365 p=.000	CA<CB, DA, DB****
Restoration of human-damaged sites (campsites, trail, lakeshores)	1.68	1.66	1.83	1.86	F=4.42 df=3,1369 p=.004	
Litter removal at trailheads	2.09	1.86	2.05	1.92	F=3.96 df=3,1368 p=.008	
Litter removal in the Wilderness	1.90	1.79	1.96	1.88	F=1.76 df=3,1359 p=.152	
Solitude by controlling the number of day users	2.85	2.33	3.02	2.53	F=20.61 df=3,1362 p=.000	CA<CB**** CB>DA**** DA<DB****

[a] Scale included "1" equals strongly support to "5" equals strongly oppose.
*p=.003
**p=.002
***p=.001
****p<.001

Few significant differences were found between the two day-user groups. Only two management activities were viewed differently by the two day-user groups. In both items (i.e., access to information during open hours of the visitor center, solitude by controlling the number of day users), the group presented with spending directed at improvements showed less support than the group presented with spending to maintain current levels.

Another way of understanding users' priority for management actions was interpreting means into ranks from the highest to the lowest mean for descriptive purposes only. The four groups shared many of the same top-rated management activities, regardless of a maintain or improve funding action. As shown in Table 4, restoration of human-damaged sites including campsites, trails, and lakeshore was the absolute top priority of all groups. All groups, except for the camper group with the maintain scenario, rated litter removal in wilderness areas as the second most important management activity. Litter removal at trailheads received at least a fourth-place rank by all of the groups. Two additional management activities which were highly supported were information about ways to reduce impacts in wilderness and trail maintenance including clearing trees and erosion control. All of these aforementioned management activities touch on ecology and preservation.

Besides using the rank table for considering management activities widely supported, the table can also reveal activities which were not supported. Three management activities were ranked in the last five positions by each of the four groups. These activities include access to information on the Internet, access to information by placing rangers at the trailheads, and providing information about other wilderness recreation opportunities in the area. Overall, the camper groups showed greater variation in their rankings than the day users. For instance, those campers who were asked to rate improved access to existing information during open visitor center hours ranked it in last place, whereas the campers who rated maintenance of current conditions ranked this same activity in 10th place. The purpose of these rankings is to shed additional light on user concerns that may turn into management actions funded by the Fee Demonstration Program.

Discussion

A multitude of studies have been completed in the last year or so to evaluate the federal recreation Fee Demonstration Program. Many different approaches have been taken to understand public support for new or increased fees to access public lands. One of the purposes of these fees is to provide additional revenue to local offices of the agencies to begin a new era of projects and programming. This study provides necessary information to the Forest Service unit involved and possibly other wilderness areas to evaluate their spending decisions in the upcoming years. This study attempted to show (and did show) that the rationale or positioning of the fee program does matter to the public. Users, and possibly citizens at large, have an opinion on how their user fees are spent. In the case of Desolation Wilderness, users, particularly campers, prefer a maintain or restoration fiscal policy.

Table 4
Rank of Mean Scores on Management Activities, Desolation Wilderness, 1997-1998

	Campers		Day Users	
Fees used for:	Improve on current level Group CA	Maintain current level Group CB	Improve on current level Group DA	Maintain current level Group DB
Restoration of human-damaged sites (campsites, trails, lakeshores)	1	1	1	1
Litter removal in the wilderness	2	3	2	2
Information about ways to reduce impacts in wilderness	3	5	5	8
Litter removal at trailheads	4	4	3	4
Trail maintenance (clearing trees, erosion control)	5	2	3	2
Wilderness rangers at high use areas in the wilderness	6	6	7	6
Interpretive information (wildlife, natural history)	7	15	7	9
Training for visitor center and ranger staff	8	14	10	10
Information about rules and regulations	8 (tie)	9	13	12
Patrol at trailhead parking facilities for safety/security	10	16	12	13
Information about health and safety for wilderness travel (sunburn, drinking water, hypothermia, situations with animals)	11	11	12	14
Efficiency of the permit reservation system	12	13	14	16
Access to existing information at trailheads	13	8	9	7
Maintenance of trailhead rest room facilities	14	7	6	5
Access to existing information posting on the Internet/ WWW	15	17	18	19
Access to existing information with ranger hours at trailheads	16	19	15	16
Solitude by controlling number of days	16 (tie)	11	19	15
Information about other wilderness recreation opportunities in the area	18	18	16	18
Access to existing information during open hours of visitor center	19	10	17	11

More specifically, the results suggest a maintain spending program is favored over an improvement plan. It appears the wilderness recreation area users who were studied, particularly campers, were more supportive of maintaining current conditions. Day users were sometimes more supportive of a maintain position; however, on most of the management activities, day users did not rate maintenance any differently than improvement. Another important element of the findings is the types of projects users support. Campers and day users were often in agreement on these projects, particularly on the most supported efforts. Returning the wilderness back to more natural conditions "showing less of the wear and tear" of human impact was the desire of the respondents surveyed. This restoration effort should focus on areas like campsites, trails, and lakeshores. Mitigating erosion brought on by humans or nature and removal of litter and broken trees were also recommended as top funding priorities. Further, these respondents saw value in providing information to wilderness users on ways to reduce impacts, thus suggesting additional ways to achieve an ecological balance.

In times when value is a key word in service delivery (Upshaw, 1995), users or customers expect something extra or new for their payment. This trend would translate into the Forest Service making improvements to wilderness areas with the new revenues. However, as we also postulated, wilderness users may expect a different type of product or experience. The very essence of wilderness is a resource untouched and undeveloped. Respondents appear to have had this perspective in mind.

The results from campers were very clear with their support for a maintain position. Day users were less definitive on their support for maintaining over improving. This could be explained by the nature of the day user's experience. The study site attracts an assortment of day users who could be hikers traveling by foot deep into the wilderness or sightseers who park their car and walk for less than a mile. This latter group of day users may not identify with or understand the nature of wilderness. Thus the improvement scenario would not have the same meaning to the day users as it would to the campers.

The overall findings of this study might be considered by other wilderness resource areas to assist in their consideration of adopting the Fee Demonstration Program or in spending collected or future revenues. More broadly, this study provides a suggested set of questions and analyses for studying fee changes in a resource setting. A research study of this type can aid managers in budget processes which must prioritize funding facilities and programs that are attractive to their constituents. During budget sessions it can be quite difficult to balance several user groups' interests and also consider new development versus renovation alternatives. The positions users take on funding initiatives can reveal some valuable insights into social, environmental, and economic beliefs.

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