Donations as an Alternative to Wilderness User Fees—The Case of the Desolation Wilderness

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Abstract—Day-use visitors to the Desolation Wilderness were asked about making voluntary donations at the trailhead. Of the 111 visitors who used one of the four trailheads at which voluntary donations were requested, 55% reported making a donation, with an average reported donation amount of $4.20. Subjects were categorized into three groups: donors, would-be donors, and nondonors. Donors had fewer previous visits, and fewer years since their first visit than nondonors. Among donors, higher place attachment was associated with larger donations. Donors and would-be donors perceived significantly more similarity with the Forest Service than did nondonors.

Are wilderness users willing to pay fees to support wilderness management? Recent studies suggest that they are (Lime and Lewis 1997; Watson and others 1998), though not necessarily without some concerns. But while this is an important question to ask, additional relevant questions are: Is it appropriate for users to pay fees? How might requiring wilderness users to pay fees alter the experience being sought? What are some implications of charging user fees? Are there alternatives to mandatory wilderness user fees? This paper examines the potential of using donations as an alternative to charging wilderness user fees.

An underlying assumption in many of the recreation and wilderness user fee discussions seems to be that as long as users are willing to pay fees, then it is perfectly acceptable to charge fees. But a willingness to pay fees and appropriateness of charging fees are distinctly different issues. Users who are willing to pay fees may be showing their support for wild places, but may also be failing to consider all of the consequences of fee programs.

Both scholars and visitors have expressed concerns with charging fees to use public lands for recreation. Concerns are that charging fees may: 1) alter the roles of visitor and agency provider to those of buyer and seller, a relationship less conducive to facilitating the social services role of recreation (Dustin and others 1987; Schultz and others 1988); 2) discourage volunteerism and reduce feelings of stewardship on the part of visitors toward an area (Desolation 1997; Lundgren 1997; Marshall 1994); 3) price some people out of wilderness access (Lime and Lewis 1997; Petersen 1992; Walsh and others 1989; Watson and others 1997); 4) lead to an increased level of management in the area (Desolation 1997); and 5) interfere with or even preclude certain aspects of the wilderness experience, namely feelings of freedom, autonomy, choice and escape (Christensen and others 1998; Cockrell and Wellman 1985; Lime and Lewis 1997; White and others 1995).

Donations may be one alternative to charging wilderness user fees, although little research has examined this alternative. Most research into donation behavior has been in the context of charitable giving (e.g. to non-profit environmental organizations) or blood and organ donation. Donating money to a government agency may be a very different situation, governed by different motives and expectations. Nevertheless, the psychology and marketing literature can inform us about some of the motives for donating, the social norms governing donation behavior, the importance of situational conditions that apply at the time of the solicitation, distinguishing characteristics of donors, and characteristics of successful appeals.

Research that examines donations to support agency backcountry management is limited, but it does suggest that voluntary donations are much preferred over mandatory fees. Godin (1984) found that voluntary contributions were by far the most preferred method of paying backcountry recreation fees. Out of five methods queried (paying for a license, paying a general entrance fee, paying a fee for each specific activity or facility, paying a tax on equipment, or soliciting a voluntary contribution), backcountry recreationists on National Forest lands in New Hampshire and Maine preferred a voluntary contribution by a wide margin; 75% favored voluntary contributions, compared to 50% favoring the next most preferred method (paying a general entrance fee). Only 11% of those surveyed opposed solicitation of a voluntary contribution. Similarly, Fedler and Miles (1989) also found that out of seven common methods of payment, hikers preferred making voluntary contributions by a significant margin (86% to 57% for the next most preferred method, a daily general use fee).

User fees may have multiple purposes. Fees may be collected to generate revenue, to encourage or discourage particular uses or use patterns, to promote personal contact with visitors, to promote equity, or to nurture public support. To the extent that wilderness user fees are being collected to generate revenue, promote equity and nurture public support, donations may be a feasible substitute. But donations may not be a substitute for fees collected in order to encourage or discourage particular uses or use patterns, to promote personal contact with visitors, or if the goal of a fee program is simply to maximize revenue.

Research on Charitable Giving

Two factors are important to understanding donation behavior: characteristics, attitudes and perceptions of the donor, particularly with respect to the soliciting organization; and effectiveness of solicitation techniques. Donation behavior is deliberate, and the decision to donate hinges on a consideration of costs and rewards (Phillips 1982). When potential donors are asked to contribute, they make fundamental judgements about the soliciting organization—"Is there a need, and how great is the need?" (Smith and Berger 1996, p. 219). Thus, donor awareness of the soliciting organization and perceptions of the organization’s function and image are critical. Motivations for charitable giving include reciprocity (the donor has benefited from the organization’s activities in the past or anticipates a need for their services in the future), and self-esteem (an attempt to improve one’s self-image or perceived social worth) (Dawson 1988). Other donation motives may include peer pressure and a desire to see others benefit (Margolis 1982; Rubin and Thorelli 1984). Donation deterrents include concern over the fiscal responsibility of the receiving organization (Mahatoo and Banting 1988), lack of awareness of the organization, doubts about the worthiness of the cause, and/or lack of accurate information about the organizational mission (Schlegelmilch 1988).

Richer (1995) examined the extent to which donations to environmental organizations may be influenced by a perception that donations may not be needed if an organization receives government funding. He found, instead, that government grants to nonprofit organizations tended to increase private sector donations to that organization, perhaps because donors view government funding as an indicator of the worth of the organization or cause. Whether the same logic might be applied by potential donors to a government agency is unknown.

Another factor in the decision to donate is the extent to which the donor believes the recipient’s plight is externally rather than internally caused. Benson and Catt (1978) found that contributions are considerably greater when the recipient’s plight is thought to be externally caused. They also found that contributions were significantly greater when the solicitor presents a ‘feeling good’ justification for giving (e.g. you’ll feel good about making a contribution) rather than a ‘social responsibility norm’ justification (e.g. it’s your responsibility to help those in need).

In addition to examining the influence of attitudes on compliance with donation requests, research has also examined the effectiveness of various solicitation techniques. A meta-analysis of 11 experiments on the effect of legitimizing small or “paltry” donations found that, in each case, a larger proportion of subjects made a contribution when a phrase such as “any amount, no matter how small, will help” or “even a dollar (or penny) will help” was added to the solicitation (Fraser and Hite 1989). Although the average dollar amount contributed was smaller for treatment subjects compared with the control group, because of the higher compliance of treatment subjects, total revenue per subject was significantly higher in the treatment group in 7 of the 11 experiments.

Fraser and Hite (1989) found that legitimization of small contributions combined with the promise of a matching contribution was more effective than legitimizing small contributions alone. They posit that legitimization with an actual dollar amount introduces a minimum anchor point that makes modest donations appear more generous and eliminates most non-compliance excuses (e.g. I can’t afford to donate). A matching contribution also makes modest donations seem more generous by making them worth twice their face value and heightening the perceived importance of complying.

When donations are requested, the solicited donor often has little idea of the appropriate size of the expected donation. When this is the case, any information available as an initial starting point may be used as an anchor to estimate values, and subjects typically bias judgements in the direction of the suggested anchor (Smith and Berger 1996). A suggested anchor may also influence the solicited donor’s choice about whether to make a contribution or not (Brockner and others 1984). Smith and Berger (1996) found that suggesting an anchor increased the rate of compliance with a donation request, and that lower anchors produced higher compliance rates. The size of the suggested anchor did not, however, influence the size of the donation (i.e. lower anchors did not produce lower average contributions, nor did higher anchors produce higher average contributions).

Additional solicitation techniques that may influence donation behavior include the manner in which the solicitation is framed, and the type of reference information provided about the need for the contribution. Smith and Berger (1996) found that positively framed appeals (emphasizing the benefits of contributions to the organization) resulted in higher compliance with donation requests than negatively framed appeals (emphasizing the negative consequences of not raising enough money). When reference information is provided, it may be provided in different forms, such as factual/statistical or narrative/experiential. Smith and Berger (1996) found that the provision of factual, statistical reference information resulted in larger contributions than no information. Likewise, the presence of narrative or experiential reference information yielded larger contributions than no information. There was no significant difference, however, in the size of contributions between statistical and narrative information treatments.

Finally, it appears that reference information about others’ contributions may influence donation size. Sell and Wilson (1991) found that contributions to a public good were greater when potential donors had individualized information about how much other individuals had contributed than when they had only aggregated or no information.

Research on Wildlife Tax Checkoffs

Although only limited research has examined voluntary contributions to state nongame wildlife programs via tax return checkoffs, this research is likely the most closely related to the issue of voluntary donations to a government agency charged with managing natural resources. These studies provide insight into why people do or do not contribute to such programs and how contributions could be most effectively solicited.

In Brown and others (1986), lack of awareness was the primary reason given for not contributing to the nongame
wildlife tax checkoff program. Forty-six percent of subjects indicated they had insufficient information on how the funds would be used; 42% said they overlooked the option to contribute; and 17% indicated they were not sure the funds were needed. Donors and nondonors held different beliefs about the outcomes of donations. Positive beliefs (held by more donors than nondonors) included the belief that a donation would lead to a higher quality environment, aid species which would otherwise be ignored, result in improved habitat for nongame species, and lead to more recreation opportunities. Negative beliefs (held by more nondonors than donors) included the belief that a donation would leave them (the subject-donor) with less money to buy other more important things, that it would simply contribute to more bureaucracy, and that it would have no effect on nongame species.

Brown and others (1986) recommend that appeals for contributions make clear the uses and ultimate benefits of the contributions, and make potential donors aware that the agency is interested in their opinions as well as their money.

Harris and Miller (1992) found that past donation behavior is a more important predictor than attitudes: soliciting organizations should encourage repeat donations by contacting donors (for example with a newsletter) to thank them and inform them of how the money was used.

Methods

The Desolation Wilderness is a 63,000-acre wilderness located just west of Lake Tahoe in California. Beginning in 1997, the following fees were established under the authority of the Recreation Fee Demonstration Program: $5 for reserving an overnight permit; $5 person/night for camping (maximum $10 person/night and $100 group/night); $3 per day for day-use parking at one trailhead (Eagle Falls). In lieu of a parking or day-use fee at other trailheads, a donation-request system was established at four trailheads, as well as at several other staffed and unstaffed information stations. Self-service fee tubes were used at the four trailheads to collect voluntary donations. See figure 1 for the text of the sign that accompanied the fee tubes.

Watson and others (1998) conducted a study of visitor response to recreation fees in the Desolation Wilderness. Visitors who obtained an overnight or day use permit for the Wilderness between June 1997 and June 1998 were sampled. Names and addresses were collected, and questionnaires were mailed to subjects. Although the rate of compliance for obtaining permits is not known, past estimates have been as high as 90-95% (Watson and others 1998). Day-use visitors were administered a slightly different survey than overnight users. Only day-use visitors were asked about voluntary donations; therefore only these subjects are included in subsequent analyses and discussion. Of the 1264 questionnaires mailed to day-use visitors, 68 were returned undeliverable; 789 completed questionnaires were returned, for a response rate of 66%.

Several questions were asked regarding donations in the questionnaire:

a. Was a donation requested at the trailhead you used?  Yes (go to b)  No (go to c)

b. Did you donate? Yes  How much?  No

c. Would you have donated if requested? Yes  How much?  No

Although only a few questions related to donation behavior were asked, the data collected represent a starting point for further examination of this alternative to mandatory fees. We will first examine general attitudes toward wilderness day-use fees, then self-reported donation behavior. Finally, since there has been no previous research on recreation visitor characteristics or attitudes associated with actual donation behavior, we will explore the association between donation behavior and 1) demographic characteristics, 2) previous use history of the Desolation Wilderness, 3) place attachment and wilderness involvement, and 4) visitors’ perceived similarity with the managing agency (Forest Service). These analyses will provide a preliminary understanding of recreation visitor donation behavior.

Results and Discussion

Day-use visitors were asked about paying a fee for wilderness day use. Forty nine percent indicated that paying a wilderness day use fee was acceptable, while 35% indicated that it was unacceptable (16% were neutral). Visitors were asked about paying a trailhead parking fee. Fifty-one percent indicated that paying a trailhead parking fee was acceptable, while 32% indicated that it was unacceptable (17% were neutral). Although 32% of all day-users indicated that paying a trailhead parking fee was unacceptable, at Eagle Falls trailhead (the only trailhead where a parking fee was charged), only 18% of visitors said that paying such a fee reduced the enjoyment of their visit. Visitors may object to paying a fee, but it does not necessarily follow that doing so detracts from their trip enjoyment.

Of the 111 visitors who used one of the four trailheads at which voluntary donations were requested, 55% reported making a donation, with an average reported donation amount of $4.20. Of the 622 visitors asked if they would make a donation were one requested, 77% said they would, with the average intended donation amount again $4.20. However, since the 111 visitors using the trailheads at

Figure 1—Donation sign located at four trailheads.
which donations were requested were no different from the 622 visitors using the other trailheads on any demographic or attitudinal variables, it follows that the percentage of visitors indicating that they would make a donation is inflated, and 55% of visitors making a donation is probably a more realistic estimate than 77%. Even this 55% figure may be slightly inflated, since it is based on reported donations, and there was no mechanism to check the accuracy of those self-reports.

Subjects were next categorized into one of three groups: those who had the opportunity to donate and reported doing so (Donors, n=61, 8.5% of sample); those who had the opportunity to donate and reported not doing so, as well as those who said that they would not donate if given the opportunity (Nondonors, n=181, 25.2% of sample); and those who were not given the opportunity to donate but who said they would donate if given the chance (Would-be Donors, n=475, 66.2% of sample).

No differences were found among the three groups with respect to age, gender, education, or group size. Household income was significantly associated with a propensity to donate, with donors more likely to come from higher income households; however income was not significantly correlated with the amount of the reported donation.

Significant differences were found among the three groups with respect to number of previous day trips to the Desolation Wilderness, and number of years since their first day trip to the Desolation (see table 1). Donors reported the fewest previous day trips to the Wilderness, while nondonors reported the most previous day trips. Likewise, donors reported the fewest years since their first day trip, while nondonors reported the most years since their first visit. Day users who have been visiting the longest, and who visit most frequently, are the least likely to donate. And, although there was no significant correlation between reported donation amount and number of previous trips or years since first trip, there was a significant negative correlation between would-be donation amount and both number of previous trips (Spearman’s rho correlation coefficient = -.164; two-tailed significance = .001) and years since first trip (Spearman’s rho correlation coefficient = -.122; two-tailed significance = .013). Among would-be donors, those who have been visiting the longest and who visit most often reported a significantly smaller would-be donation amount than those who have been visiting for fewer years and who visit less often.

In order to explore the relationship between place attachment and donation behavior, a series of questions was asked to measure place attachment (place dependence, place centrality, and place identity; see Williams and Watson 1998) as well as wilderness involvement. There were no consistent patterns of association between these measures and donor group membership. However, for donors, the amount donated was significantly correlated with place identity (Spearman’s rho correlation coefficient = .440; two-tailed significance = .001) and with place centrality (Spearman’s rho correlation coefficient = .285; two-tailed significance = .037), but not with place dependence. Amount donated was also significantly correlated with wilderness involvement (Spearman’s rho correlation coefficient = .234; two-tailed significance = .091).

Finally, since donation behavior is related to both previous use history and place attachment/wilderness involvement, it seemed prudent to examine the relationship between previous use history and measures of place attachment/wilderness involvement, and then examine how these two constructs together may influence donation behavior. All three measures of place attachment, as well as wilderness involvement, were significantly correlated with number of previous visits and years since first visit (see table 2). Together with the previous results, this suggests a complex relationship among donation behavior, previous use history, and place attachment/wilderness involvement. Previous use history is associated (negatively) with propensity to donate, but not with size of donation, while place attachment is associated with size of donation, but not propensity to donate. When visitors are solicited for a donation, they are faced with two decisions—whether to donate, and if so, how much to donate? Previous use history appears to influence the first of these decisions, while place attachment appears to influence the second.

Visitors with a limited use history in the area are more likely to donate than are those with a more extensive use history, but because they are less place-attached they are also more likely to make a smaller donation. Visitors with an extensive use history in the area are less likely to make a donation, but because they are more highly place-attached, when they do donate they tend to donate a larger amount. This suggests that in situations where compliance with donation requests is low (because long-time visitors are not making donations), the agency should design a persuasive message that focuses on visitors’ use history (persuading long-time visitors that their donations are needed). However, in situations where compliance with

| Table 1—Mean number of total day trips and years since first day trip to the Desolation Wilderness, for donors, would-be donors, and nondonors. |
|-----------------|-----------------|-----------------|
|                 | Donors          | Would-be donors  | Nondonors        |
| Total number of | 6.2<sup>a</sup> | 16.4<sup>b</sup> | 17.3<sup>b</sup> |
| Trips to Desolation |                 |                   |                   |
| Years since first day trip to Desolation | 7.6<sup>a</sup> | 9.2<sup>a</sup> | 12.0<sup>b</sup> |

<sup>a,b</sup> Mean values with different superscripts are significantly different at α = .05 based on t-test for equality of means.

| Table 2—Spearman’s rho correlation coefficients for previous use history and place attachment/wilderness involvement. |
|-----------------|-----------------|-----------------|
|                 | Total number of day trips to Desolation | Years since first day trip to Desolation |
| Place Identity  | .425<sup>*</sup> | .319<sup>*</sup> |
| Place Centrality| .451<sup>*</sup>  | .319<sup>*</sup> |
| Place Dependence| .197<sup>*</sup> | .146<sup>*</sup> |
| Wilderness Involvement | .340<sup>*</sup> | .246<sup>*</sup> |

<sup>*</sup>Significant at P < .001.
donation requests is adequate but average donation amount is low, the agency should design a persuasive message that focuses on visitors' feelings of place attachment in order to increase average donation amount.

Potential donors' perceptions of the function and image of the soliciting organization are critical. Therefore we explored the relationship between donation behavior and perceived similarity with the managing agency by asking a series of questions to assess the extent to which subjects felt the Forest Service shares their values, is like them, has similar goals, supports their views, and thinks like them. For each of the five questions, a significant difference was found between nondonors and would-be donors, and between nondonors and donors (see table 3). Both donors and would-be donors felt they shared similarities with the Forest Service that nondonors did not feel were shared. No significant differences were found between donors and would-be donors.

Finally, a discriminant analysis was undertaken to determine which of the independent variables best distinguished among donor group membership. The five measures of perceived similarity with the Forest Service, the three measures of place attachment (dependence, centrality, identity), wilderness involvement, total number of previous day trips, years since first day trip and household income were entered stepwise into the analysis, with a required probability of F of .10 to enter. Only two variables were found to be significant predictors of donor group membership, the extent to which the subject perceives that the Forest Service "has similar goals as me," and number of years since first day trip to the Desolation (see table 4).

### Conclusions

Past research suggests that donations are preferred over mandatory fees, and the research reported here shows that visitors are willing to make donations—55% of subjects in this study reported donating an average of $4.20. It may be possible to increase both compliance with donation requests and average amount donated with a concerted effort based on research into solicitation effectiveness.

Currently, Forest Service managers at the Desolation Wilderness seem to be more successful at convincing visitors with a relatively limited use history to make a donation. Unfortunately, these newer visitors tend to make smaller donations, perhaps because they have less wilderness involvement in general, and less attachment to the Desolation Wilderness in particular, than visitors with a more extensive use history in the area. By increasing long-time visitors' compliance rate with donation requests, the Forest Service could more successfully tap into the place attachment that appears to translate into larger donations.

It appears that agencies could also increase compliance with donation requests by emphasizing to visitors that they have similar goals. Agencies need to actively encourage repeat donations (by emphasizing the on-going nature of the need and the benefits visitors will realize), since this data shows that long-time and more-frequent visitors are less likely to donate. Day users who have been visiting the area longest, and who visit most frequently, are the least likely to donate; this may be because they have become accustomed to using the area for years without having to pay, while newcomers don't have a long history of free use. As these newcomers (who are already more likely to contribute) continue to visit, repeat donations may be easier to obtain.

A review of research into charitable giving suggests that agencies soliciting donations will have to explain to potential donors not only the need for donations and how the money will be used, but also alleviate some of their concerns regarding the fiscal responsibility of the receiving organization and doubts about the worthiness of the cause. The agency will need to convince potential donors that their donations truly are needed, and that the money contributed will be used responsibly. Two solicitation techniques (reviewed earlier) known to increase compliance with donation requests in non-wilderness contexts are to legitimize small contributions and promise matching funds. Perhaps managing agencies could convince a local or regional trails organization to put up matching funds.

There has been no research into effectively soliciting donations from wilderness visitors, but the situation lends itself well to a controlled experimental design. Independent variables that could be tested in different treatments include: the explanation of the financial need and how the

### Table 3—Mann-Whitney U-Wilcoxon W test results (Z scores) comparing donors, would-be donors and nondonors on subjects' perceived similarity with the Forest Service.

<table>
<thead>
<tr>
<th>Group contrasts</th>
<th>The FS shares my values</th>
<th>The FS is like me</th>
<th>The FS has similar goals</th>
<th>The FS supports my views</th>
<th>The FS thinks like me</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nondonors and Would-be donors</td>
<td>-3.372*</td>
<td>-3.536*</td>
<td>-4.718*</td>
<td>-3.821*</td>
<td>-4.511*</td>
</tr>
<tr>
<td>Nondonors and Donors</td>
<td>-2.978*</td>
<td>-3.256*</td>
<td>-3.478*</td>
<td>-2.623*</td>
<td>-2.911*</td>
</tr>
<tr>
<td>Would-be donors and Donors</td>
<td>-0.949</td>
<td>-1.105</td>
<td>-0.360</td>
<td>-0.339</td>
<td>-0.258</td>
</tr>
</tbody>
</table>

*Two-tailed significance P < .01.

### Table 4—Wilks’ λ test results of discriminant analysis predicting donor group membership.

<table>
<thead>
<tr>
<th></th>
<th>The Forest Service has similar goals as me</th>
<th>Years since first day trip to the Desolation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wilks’ λ</td>
<td>.964</td>
<td>.947</td>
</tr>
<tr>
<td>Equivalent F</td>
<td>10.5*</td>
<td>7.7*</td>
</tr>
</tbody>
</table>

*Significant at P < .001.
money will be used; persuasive messages tapping into visitors’ use history versus place attachment; similarity of goals of solicitor and donor; framing of appeals; use of suggested anchors; legitimizing small donations; use of matching contributions; articulating the benefits of donating; emphasizing the fiscal responsibility of the organization; use of various types of reference information; and information on how much money others are donating. Pencil and paper laboratory experiments could be conducted first, followed by field-testing the most promising lab results. A successful donations program may not generate as much revenue as a mandatory fee program, but could meet other goals and still raise a significant amount of money while avoiding engendering negative feelings from visitors.

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References


