

Perceptions of and Preferences for Fee Program Dollar Utilization Among Wilderness Visitors

Ingrid Schneider
Christopher LaPointe
Sharon Stievater

Abstract—The purpose of this study was to ascertain visitor perceptions of a fee program and preferences for management utilization of the fee dollars. Differences in program perceptions were examined both by activity and activity style. Wilderness visitors in the American Southwest were surveyed on-site during the 1997–1998 season. Overall, respondents moderately agreed that they knew about and understood the program. Respondents disagreed that the fee would effect their visitation, but they agreed that the program would limit access for others. Visitors most frequently wanted the fees fused or site improvements. As expected, main activity did not differentiate program perceptions, but activity style did. Results indicate that managers need to look beyond visitor activity to the activity's meaning for enhanced understanding of visitors and their perceptions.

Few outdoor recreation issues have been as controversial as implementation of fees for public land use. Although fees have been a component of outdoor recreation for most of this century (Henderson 1997), their prevalence has increased since 1980. The fiscal climate of the 1980s prompted increasing calls for user fee implementation, and managers continued to embrace fee programs in the 1990s. Faced with declining appropriations, increasing operational costs and the desire to maintain quality service, public agency managers have turned to fee programs to recover costs and generate revenue. In 1996, Congress authorized a four-year Recreation Fee Demonstration Program (P.L. 104-1345) to test the effectiveness of collecting fees to help maintain federal recreation resources.

However, critics of fees claim they restrict use by people with lower incomes, serve as a form of double taxation, are inefficient to administer, conflict with the idea of recreation as a merit of good and create an authoritarian, intrusive atmosphere inappropriate to leisure, given its ideal of freedom (Cockrell and Wellman 1985; Dustin 1986; Schultz and others 1988). Fees may also influence on-site behavior and people's reactions to site attributes and management policies (More and others 1996).

In: Cole, David N.; McCool, Stephen F.; Borrie, William T.; O'Loughlin, Jennifer, comps. 2000. Wilderness science in a time of change conference—Volume 4: Wilderness visitors, experiences, and visitor management; 1999 May 23–27; Missoula, MT. Proceedings RMRS-P-15-VOL-4. Ogden, UT: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station.

Ingrid Schneider is Assistant Professor of Recreation Management and Tourism, Department of Recreation Management and Tourism, Arizona State University, Tempe, AZ 85287 U.S.A. Christopher LaPointe and Sharon Stievater are research assistants.

Wilderness managers have a variety of management tools at their disposal, from education through use restriction. Visitor-management techniques are frequently implemented based on manager expertise and preferences, rather than on visitor preferences. This practice appears anachronistic, given the trend toward direct public participation in administrative procedures (Tipple and Wellman 1989). Although the manager conceptually is concerned with management impacts and their effects on visitation patterns (Jubenville 1986), there appears to be minimal visitor input. The purpose of this research was to get input from wilderness visitors about the federal fee program, specifically their perceptions of the program and preferences for fee utilization. Further, differences in fee program perceptions were examined by both activity and activity style.

When deciding among management options, those in charge of resource areas frequently implement tactics based on their own expertise and perceptions or on agency tradition (Fish and Bury 1981). Management decisions appear “to result from personal opinion and, in almost all cases, actions are taken without much preexisting data” (Cole and others 1997). Frequently, discrepancies exist between manager and visitor perceptions. For example, Ibitayo and Virden (1996) found park visitors perceived lower levels of depreciative behavior such as littering and vandalism than park managers. Watson and others (1997) found that visitor groups agreed with manager views regarding the direct and indirect ends of the management continuum, but became less clearly differentiated in its middle.

When research does solicit visitor input on management, it is frequently somewhat limited in scope and format. In theory, user involvement is recognized and recommended for better management and conflict minimization (Cole and others 1997; Moore and Barthlow 1997). However, scarce resources often preclude full visitor involvement. When conducted, management-preference inquiries focus primarily on segmenting visitors by activity type comparing, for example, the attitudes of hikers with horseback riders.

Segmenting visitors by activity type is attractive because of its simplicity and intuitive appeal. However, the assumption that visitors vary dramatically by activity superficially separates visitors and neglects those who engage in multiple activities (Watson and others 1997). Further, the segmentation diminishes the relative importance of each activity to the individual. Recent inquiries suggest less than optimal explanatory power when only activity type is utilized, so considering participation in multiple activities or by strength of activity identity is necessary (Watson and others 1997; Watson and others 1995). Segmenting visitors by their

activity style is one alternative to simple activity separation. Activity style moves beyond simple activity description and incorporates the participants' experience and meaning. Jacob and Schreyer (1980) defined activity style as the various personal meanings assigned to an activity by individuals.

Methods

Setting

The Superstition Wilderness in the Tonto National Forest is located 40 miles east of the Phoenix area. Its 160,000 acres have 180 miles of trail and ranges from 2,000 to 6,000 feet; it is dominated by desert vegetation. The Wilderness is estimated to receive an average annual visitation of 25,000, based on two trailhead registers and manager input. Approximately 80-85% of visitation occurs January through April, with 75% of the visitation occurring on the weekend. Of these visitors, approximately 90% are hikers and about 10% stock users. The amount and type of visitation appears similar to other wilderness areas (Hall and Shelby 1998; Roggenbuck and Lucas 1987). A four-dollar entrance fee is charged at two main trailheads through self-pay fee stations.

Survey

An on-site survey was conducted and was designed to determine several visitor features. This report focuses on visitor demographics (age, gender, income), trip descriptions (length, past visitation, activity), activity style (several Likert items such as, "my activity means a lot to me," "my activity is one of the most satisfying things I do," "a lot of my life is organized around my activity"), perceptions of the fee program on federal lands (several Likert-scale items such as "fees are a good thing") and preferences for fee-program dollar use (forced choice from among personnel, toilets, signs and other). The two-page survey instrument was self-administered on-site at the two trailhead locations that receive a majority of the use. The survey instrument was pretested at the survey sites, few problems were detected, and it was typically completed within 10 to 15 minutes. All groups recreating at the sites were approached, and one person from each group was systematically selected to fill out a questionnaire. The questionnaires were administered on randomly selected sample days from September 1997–August 1998, which included 60% weekend and 40% weekdays. Approximately 20% refused to participate, typically due to time constraints.

Analysis

Descriptive statistics were used to examine the visitors' demographic and activity characteristics, as well as their fee-program perceptions. To examine program-perception differences by *activity*, those in the most frequently reported activities (hiking and backpacking) were separated and their perception means compared with a t-test. The six activity-style items were combined into a scale that demonstrated high reliability ($\alpha = .81$). To examine program-perception differences by *activity style*, a median split was

performed on the activity-style scale and perceptions means compared with a t-test. As necessary, unequal group variances were accounted for by adjusted t-values.

Results

Of the 1,456 respondents, 93.2% were Caucasian, 61.3% were male, and the average age was 41 years. Respondents had either a college degree (46.2%) or an advanced college degree (27.7%). Annual household income was \$50,000-74,999 for 26.2% of respondents, \$35,000-49,999 for 19.9% of respondents and greater than \$100,000 for 16.5% of respondents; the income supported 2.6 people on average.

Respondents typically visited the Superstition Wilderness with friends (38.6%) or family (34.4%) and were in groups comprised of two to four adults (71.5%). Visitors most frequently spent part of one day (91.8%) at the site (an average of 3.5 hours). A majority (55.9%) indicated they spent 10 or more days a year in a wilderness area, averaging 24.53 days a year.

Most respondents reported that their main activity in the Superstition Wilderness was hiking (90.7%). Respondents had participated in their main recreational activity for an average of 14.29 years and had high (45.5%) or very high (28.1%) levels of interest in it. On average, respondents took 10.18 trips a year in Arizona and 4.28 trips outside of Arizona for their main activity. A majority of the respondents (86.4%) agreed to some extent that their main recreational activity was one of the most satisfying things that they did. Similarly, respondents typically agreed (42.9%) that the type of equipment they used in their main activity meant a lot to them. The activity-style scale mean was 3.57 (S.D. = .647, Mode = 3.50), with higher means indicating greater activity style.

Respondents were asked a series of questions to determine their perceptions of the pilot fee program. Of the visitors contacted, almost one-half (45.1%) indicated they were knowledgeable about the fee program, and 56% agreed they understood the reasons behind the fee program. Overall, the respondents disagreed (39.9%) or strongly disagreed (39.2%) that they would *not* return to the area because of the fees. Similarly, respondents agreed (48.7%) or strongly agreed (31%) that they would use the area whether they had to pay a fee or not and the fee program would have no effect on the way they visited the area (57.4%). However, 42.7% indicated that the fees would limit access to the area for some people. Over half (58.0%) agreed that the fee program was a good thing, and two-third (66.7%) agreed that the fees were necessary to maintain the quality of services provided to the public. A majority of the respondents (65%) indicated that they had paid a fee at another area within the region in the past year.

Statistical differences in fee-program perceptions were not found when comparing the two main activity groups (hikers and backpackers). However, activity style did differentiate knowledge and perceptions of the fee program. Those with high-activity style indicated greater agreement that they knew about the program ($t = -6.40$, $p < .001$), they would use the area whether or not they had to pay a fee ($t = -5.09$, $p < .001$), they understood the reasons behind the fee program ($t = -4.31$, $p < .001$), fees were necessary ($t = -2.77$, $p < .01$), and they thought the program was a good thing ($t = -2.39$, $p < .001$).

Neither activity nor activity style statistically differentiated visitor perceptions of the program's effect on their own or others' visits.

Most frequently, visitors indicated fees should be used for signs (41.5%). Toilets were the next priority (26.7%), followed by some other purpose (17.8%). Of the other purposes, maintenance was the most frequently cited. The lowest priority for the use of fees was for personnel (14%).

Discussion

An on-site survey of visitors to a southwestern U.S. wilderness area September 1997–August 1998 indicated moderate knowledge and understanding of the fee program. Most visitors did not anticipate a change in their visits because of the fee program, but other visitors might be affected. Visitors with higher activity style more strongly agreed that they understood and supported the program.

Despite only moderate knowledge of the fee program, the majority of visitors appear to support it and will continue to visit this wilderness area. Thus, concerns about displaced visitors may be unwarranted. For wilderness areas in particular, visitors' relatively high income may minimize the effect of nominal fees. It must be noted that this study did *not* consider visitors who were already displaced and not on-site. Nonetheless, decreases in future visitation are doubtful. Research on previous visitors would delineate any visitation changes more clearly.

Although there is moderate support for the program, improvements are possible. Given the trend toward public involvement and "bridge building" or building relationships with user groups (Chavez 1997), increased public involvement and marketing are suggested. Keeping visitors involved is important to maintaining preferred-recreation opportunities and also continued support and constituency for an area. Public-relation techniques are important to recreation management, and a more proactive approach is suggested (Chavez 1997). Outdoor recreation managers are "typically not formally exposed to recent innovations in services marketing as applied to the management of wildland outdoor recreation" (Capella and Miles 1993). However, customer service and marketing are a key in the increasingly competitive market for consumers and constituents and, therefore priorities for public land managers.

Activity style appeared a more useful variable to differentiate visitor fee-program perceptions than activity. Thus, future management inquiries and research efforts should consider including activity style. A related and more parsimonious measure, revised leisure-identity salience, has been suggested (Winter and others 1998) and successful in differentiating visitor-management preferences (Schneider and Winter 1998), thus it merits attention. Leisure identity salience moves beyond simple activity description and incorporates the participants commitment, reflecting experience and meaning.

At this wilderness site, visitors indicated that fee-program dollars should be used for site enhancements and maintenance more than anything else. As visitor benefits are a high-program priority, such visitor information is useful. Therefore, managers should attempt to incorporate this information within the legislative mandates associated with wilderness. Additional research related to the type,

number and quality of signs and toilets is needed. The urban-proximate nature of the wilderness area may be an influence on these results (Ewert and Hood 1995). Comparative research would be of interest to determine if visitors in other wilderness areas need such amenities or if this is unique to urban-proximate areas.

References

- Capella, L. M.; Miles, M. P. 1993. Applying consumer service marketing techniques to the practice of outdoor recreation management. *Journal of Hospitality & Leisure Marketing*. 1 (3): 41–62.
- Chavez, D. J. 1997. Mountain bike management: Resource protection and social conflicts. *Trends*. 34 (3): 36–40.
- Cockrell, D.; Wellman, D. 1985. Democracy and leisure: Reflections on pay-as-you-go recreation. *Journal of Park and Recreation Administration*. 4: 1–10.
- Cole, D. N.; Watson, A. E.; Hall, T. E.; Spildie, D. R. 1997. High-use destinations in Wilderness: Social and biophysical impacts, visitors responses, and management options. Intermountain Research Station, Ogden, UT: U.S. Department of Agriculture, Forest Service Publication No. INT-RP-496.
- Dustin, D. L. 1986. Outdoor recreation: A question of equity. *Forum for Applied Research and Public Policy*. 1: 62–67.
- Ewert, A. E.; Hood, D. 1995. Urban-proximate and urban-distant wilderness: An exploratory comparison between two "types" of wilderness. *Journal of Park and Recreation Administration*. 13 (2): 73–85.
- Fish, L. B.; Bury, R. L. 1981. Wilderness visitor management: Diversity and agency policies. *Journal of Forestry*. 79 (9): 608–12.
- Hall, T. E.; Shelby, B. 1998. Changes in use of three Oregon, USA wildernesses. *Environmental Management*. 22 (1): 89–98.
- Henderson, J. E. September, 1997. If we charge them, will they come? *ReNotes*. R-97-2, 1–4.
- Ibitayo, O. O.; Virden, R. J. 1996. Visitor and manager perceptions of depreciative behaviors in urban park settings. *Journal of Park and Recreation Administration*. 14 (4): 36–51.
- Jacob, G. R.; Schreyer, R. 1980. Conflict in outdoor recreation: A theoretical perspective. *Journal of Leisure Research*. 12: 368–80.
- Jubenville, A. 1986. Recreational use of public lands: The role of the manager. *Journal of Parks and Recreation Administration*. 4 (1): 53–60.
- Moore, R. L.; Barthlow, K. 1997. Principles for minimizing trail conflicts: Applications to mountain biking. *Trends*. 34 (3): 11–14.
- More, T. A.; Dustin, D.L.; Knopf, R. C. 1996. Behavioral consequences of campground user fees. *Journal of Park Recreation and Administration*. 14 (1): 81–93.
- Roggenbuck, J. W.; Lucas, R. C. 1987. Wilderness use and user characteristics: A state-of-the-knowledge review. In R. C. Lucas, ed. *National wilderness research conference: Issues, state of knowledge, future directions*. Intermountain Research Station, Ogden, UT: U.S. Department of Agriculture, Forest Service Publication No. GTR-INT-220.
- Schneider, I. E.; Winter, P. L. 1998. Multiple use management preferences by visitors with differing leisure identity salience. *Journal of Park and Recreation Administration*. 16 (4): 22–38.
- Schultz, J.; McAvoy, L.; Dustin, D. L. 1988. What are we in business for? *Parks and Recreation*. 23 (1): 52–54.
- Tipple, T. J.; Wellman, J. D. 1989. Life in the fishbowl: Public participation rewrites public foresters' job descriptions. *Journal of Forestry*. 87 (3): 24–30.
- Watson, A.; Asp, C.; Walsh, J.; Kulla, A. 1997. The contribution of research to managing conflict among national forest users. *Trends*. 34 (3): 29–35.
- Watson, A.; Zaglauer, H.; Stewart, S. 1995. Activity orientation as a discriminant variable in recreation conflict. Paper presented at the Northeastern Recreation Research Symposium; April; Saratoga Springs, NY; Radnor, PA: U.S. Department of Agriculture, Forest Service, Northeastern Forest Experiment Station.
- Winter, P. L.; Schneider, I. E.; Stolken, A. 1998. Leisure identity salience among park visitors in Arizona. Paper presented at the Seventh International Symposium on Society and Resource Management; May; Columbus: MO.