

Running Header: NPS FEES NATIONAL SURVEY

National Park Service Fees: Value for the Money or a Barrier to Visitation?

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Executive Summary:

The National Park System (NPS) employs several fee strategies to regulate access and generate operating funds. However, a national debate surrounds many fee issues; the acceptability of the Recreation Fee Demonstration Program (RFDP), whether the value of the benefits matches the fees, the preferred structure for applying fees, and whether fees constitute a barrier to some portion of the American public. This investigation sheds additional light on the fees debate and contributes to the decisions NPS managers must make about fees and fee strategies.

The results reported here come from an analysis of data from a national survey sponsored by the NPS Social Science Program. The phone survey of 3,515 people sought to profile the demographics of visitors and non-visitors, determine visitation rates, assess perceptions of many fee topics, and identify reasons why people do and do not visit the nation's parks. This analysis reports on a portion of that survey and specifically addresses the RFDP, whether benefits match cost, the fee structure and whether fees represent a barrier.

Significant findings reported in this article include that 1) ninety-five percent of Americans are not familiar with the RFDP and among the five percent of Americans familiar with the RFDP, 94 percent support the program, 2) eighty percent of visitors who paid to enter a NPS unit think the amount they paid was "just about right" for the value they received, 3) by a two to one margin, Americans support lower entrance fees with additional fees for services utilized rather than one large, all-inclusive entrance fee, 4) ninety-two percent of Americans prefer that entrance fees stay within the NPS rather than be deposited in the U.S. Treasury, and 5) through factor analysis, entrance fees do not constitute a barrier to more frequent visitation of NPS units but that the total cost of a trip (hotels, food, travel) is perceived to be expensive. When individual expenses are combined into a broader "expense package," total costs become a barrier to people with smaller household incomes and to individuals with less education.

Keywords:

National Park Service, fees, public attitude, visitors, nonvisitors, Recreation Fee Demonstration Program

National Park Service Fees: Value For The Money Or A Barrier To Visitation?

Fees have been a part of visiting national parks that predates the 1916 creation of the National Park Service (NPS). Areas such as Mount Rainier National Park (NP) initiated fees in 1908, Crater Lake NP in 1911, and Yosemite NP in 1913. To place the early fees into perspective, if the \$10.00 entrance fee to Yellowstone NP in 1916 had kept pace with inflation, entering the park in 2004 would cost \$172.48.¹ In 2000 at least 205 of 388 NPS units charged one or more fees, and 153 park units charged an entrance fee.

Fees augment Congressional budget allocations and assist the NPS in fulfilling its mission to “conserve the scenery and the natural and historic objects and wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations” (39 Stat. L., 535 1916). Fees are typically charged in order to protect resources where access is limited, or to provide special recreational or informational services (e.g. in parks, recreational areas, monuments and historic sites). Non-entrance fee areas typically lend themselves to unfettered access (e.g. urban parks, battlefields, parkways, rivers, trails). Despite the long history of fees, there is a continuing debate over NPS fee strategies.

Of the many avenues for research on the effect of fee strategies, this investigation utilizes data from a national survey sponsored by the NPS Social Science Program to report on two general areas of the fee debate. The first part of this report addresses knowledge and satisfaction

¹ This figure was calculated utilizing the Consumer Price Index Inflation Calculator available from the Bureau of Labor Statistics available at <http://www.bls.gov/cpi/> accessed July 2004.

of particular fee strategies. The second part addresses whether fees are an obstacle to visitation at national parks.

Fee Policy

Public lands with fees are administered by the Department of Interior Bureau of Land Management (BLM), Fish and Wildlife Service (FWS), and National Park Service (NPS), as well as within the US Department of Agriculture Forest Service (USFS), and the US Army Corps of Engineers. The debate between charging or not charging fees for public lands transcends issues across ethics, economics, and management. More's (2002) self-described polemic in the *Journal of Leisure Research* and the rejoinders of Crompton (2002), Driver (2002), and Dustin (2002) illustrate the multiple layers of controversy surrounding fees. In an earlier work Dustin, More, and McAvoy (2000) make an argument that National Parks should be fully funded through taxes to maintain the democratic nature of the "best idea we ever had" (p. 94). On the other hand, a compelling argument has been made that those who utilize the recreational resources should pay for those services, and that fees are a positive mechanism to providing better services.

An extended index of literature illustrates the wealth of research addressing fees for public land use (Williams & Black, 2002). Within that literature, public land managers have been long aware of the pros and cons of assessing fees (e.g., Manning & Baker, 1981; Harris & Driver, 1987; Schultz, McAvoy, & Dustin, 1988). Benefits include increased revenue stream, improved services, specialized services, customer satisfaction, and fees applied to programs. Potential drawbacks include discrimination against low income people, administrative headaches, prioritizing revenue over resource protection and the time, hassle, and inconvenience to visitors. Since the 1970s, the ability of researchers to evaluate public satisfaction has

improved, as has managers' ability to balance the value of fees with perceived and actual benefits (Driver, 2002). Nonetheless, the 1980s literature continued to raise serious questions about fees (e.g., Becker, Berrier, & Barker, 1985; Crompton, 1981; Kerr & Manfredi, 1991).

A notable increase in fees and research on the effects of fees occurred during President Reagan's era of "new federalism" in the 1980s with decreasing federal lands budgets and increasing pressure to charge fees (Reiling, Cheng, & Trott, 1992). In 2004 we find ourselves in a similar political environment; over the last three years the NPS has had a net reduction in its budget and some operating funds have been re-directed to address the maintenance backlog. If federal agencies face further budget reductions in the 21st century, the need for continued research is paramount.

Awareness of Fee Strategies and Support or Opposition

If the NPS and other federal agencies need to continue charging fees, then those agencies require support for their actions. Broadly speaking, public support for fees depends upon an awareness of the fiscal situation these agencies face and a trust that the federal agency is 'correctly' administering the revenue (Winter, Palucki, & Burkhardt, 1999). Fees are most objectionable the first time that a member of the public is charged, that is, when they first become personally aware of the fee (McCarville, Reiling, & White, 1996). Research suggests that a proper marketing strategy may avoid misperceptions of fee use (McCarville, 1995). These misperceptions may erode support for agency fees (Winter et al., 1999).

Williams and Black's (2002) extended literature index indicates a broad research agenda on public land user fees. But to effectively communicate with the public, agencies need a systematic research agenda (Absher, McCollum, & Bowker 1999). A fair amount of research addresses the Recreation Fee Demonstration Program authorized by Congress in 1996 to increase

revenue and support site-specific projects within the USFS, BLM, FWS, and the NPS. An annual Congressional report assesses the efficacy of the RFDP, tracks visitation rates and satisfaction, and reports on how fees are used (RFDP: Progress Report, 2003). It appears that the RFDP is satisfactory to Congress. Until FY 2002 the NPS RFDP was limited to 100 sites but in FY 2003 it was increased to 233 sites (RFDP Progress Report to Congress, 2003).

Public support or opposition to the RFDP in the NPS is not always clear because separate fees are often included within an overall entrance fee. Nonetheless public studies show broad support for RFDP. In a 1997 survey of visitors to eleven national parks, only 38% had prior knowledge of the increased fees and the RFDP, but 71% thought the fees were just about right (Lundgren, Lime, Warzecha, & Thompson, 1997). A 1998 survey found that 76.4% of visitors at 13 national parks thought that fees were just about right (Duffield, Patterson, Neher, & Chambers, 2000). In addition to general support by the public, the perception of managers is that the RFDP is neither impacting visitation, nor hurting local economies (Krannich, Eisenhauer, Field, & Pratt, 1999). Despite the success of the RFDP, the U.S. Government Accounting Office reports that to maintain trust, fee implementation overhead needs to be minimized and the public needs to be better advised how fees are being applied (US GAO, 1999; US GAO, 2001).

However a consistent portion of visitors surveyed object to fees and the RFDP (Lundgren & Lime, 1997). Martin (1999) documents 20 concerns in his analysis of fee implementation, the fulfillment of fee objectives and public attitudes towards fees. He concludes that 12 concerns are under agency control but only four are being addressed which leaves room for improvement. Anderson and Freimund (2004) interviewed 29 “fee opposers” including both independent opposers and those affiliated with anti-fee organizations. Findings indicate opposition to fees is based on: a basic set of beliefs about the role of public lands, the view that the RFDP process was secretive and exclusionary, and that the RFDP was being mismanaged. Interviewees were

concerned that managers are motivated to increase revenue rather than to focus on what is best for the land, a concern that is based on a lack of trust in the agency. Increasing trust in fee revenue administration is integral to overall support of the fee program.

The Impact of Fees: Inclusion or Exclusion

Beyond the RFDP, a central issue is whether fees displace visitors or act as a barrier to low income groups (Dustin, 2002; More, 2002). Reiling et al. (1992), investigated increasing camping fees at Maine state parks and found that compared to high income campers, low income campers relocated to no fee areas as fees rose. A study of Army Corps of Engineers day use areas revealed that compared to high income users, low-income users were more sensitive to high fees and more likely to be displaced (Reiling et al., 1994). In an investigation conducted on a southwestern national forest beach area by Schneider and Burdruk (1999), about one-third of those interviewed altered their visitation behavior in response to a fees program and 62% of those interviewed reported they visited the area less often after fees were implemented.

More and Stevens (2000) administered a mail survey in Vermont and New Hampshire that specifically looked at the impact of fees for people with upper (>\$75,000), middle (\$30,000-\$74,999), and low (<\$30,000) incomes. The two major findings were; 1) there is broad based support for fees as compared to voluntary donations or increased sales taxes, or increased state and federal taxes, and 2) utilizing a logit analysis, fees significantly discriminate against low income people. A theoretical \$5.00 increase significantly impacted 49.2% of low-income participants, 36.7% of middle income and 33.3% of upper income participants. The implication is that as fees are charged or raised, low income people are disproportionately affected.

Some of the debate on fees includes how visitors react to fees as a general entrance fee, a fee for specific services, or a fee that is augmenting tax dollars. In a 1995 national study on specific service fees over 95% of respondents believe fees or a combination of fees and taxes

should be used to fund outdoor public services (Bowker, Cordell, & Johnson, 1999). The authors also concluded that there is more resistance to an increase in fees among lower income people and non-white respondents.

Though a consistent majority seems to accept fees on public lands, agencies justifiably seek to mitigate any unintended side effects. Indeed, the public seems to agree that some sort of mitigation such as differential fee structures may be appropriate. More and Stevens (2000) reported that 73% of low income people and 64% of high income people (statistically the same, $p > 0.05$) agreed with the statement that “state parks and national forests should be available to everyone regardless of their ability to pay” (p. 349). When queried, the public recognizes the value and benefits of universal access to public lands although fees may present a hardship. Watson and Herath (1999) emphasize that a drawback to many assumptions about fees is that research only asks questions of visitors -- people who have already paid posted fees. Several investigations on non-visitors and displaced campers offer strong evidence for continued research on people who do not pay posted fees (More & Stevens, 2000; Reiling et al., 1992; Schneider & Burduk, 1999).

To contribute to understanding public perception of fees, this investigation surveyed visitors and non-visitors alike on attitudes of NPS fees. As Watson and Herath (1999) imply, rather than asking visitors hypothetical questions about the impact of fee changes, the NPS was interested in what may be an obstacle to non-visitors. In other words, if a U.S. citizen wanted to visit an NPS unit, are the fees an obstacle and are the fees a disproportionate obstacle to any particular demographic group? The assumption is that those with a lower income will view fees as more of an obstacle than those with a higher income. The following results are a subset of data from a survey sponsored by the NPS Social Science Program. The investigation utilized a phone survey of 3,515 individuals throughout the United States to create a profile of both visitors and

non-visitors. The results in the first section discuss knowledge and satisfaction with fees and specifically ask:

- 1) How familiar is the American public with the NPS Recreational Fee Demonstration Program (RFDP) authorized in 1996? Do they approve of the RFDP?
- 2) Do visitors prefer higher all-inclusive entrance fees or lower entrance fees with additional fees for individual services and activities?
- 3) Should entrance fees be retained in park units, or directed through the U.S. Treasury?
- 4) Are visitors satisfied with the level of fees paid relative to perceived benefits?

In the second section we provide a more thorough analysis of whether entrance fees prevent specific groups within society from visiting NPS units.

Methodology

The NPS commissioned the Social Research Laboratory at Northern Arizona University to conduct the agency's first comprehensive phone survey of the American public that includes both visitors and non-visitors. The final survey report profiles patterns in visitation and non-visitation of NPS units in the United States. More specifically, the report defines demographic differences between visitor and non-visitor populations, as well as differences in interest and attitudes that different populations have toward the NPS and fees (Solop, Hagen, & Ostergren 2003).

Survey data were obtained by interviewing adult members of 3,515 households in the United States. Respondents were randomly selected within the households using the last birthday method of respondent selection for participation in this survey. The original sample frame was purchased from Genesys Marketing Systems of Fort Washington, Pennsylvania. The sample frame was constructed using standard Random Digit Dialing (RDD) procedures and purged for

nonworking telephones and business lines. Data collection was completed between February 21, 2000 and May 21, 2000. The length of the survey was approximately 15 minutes. Potential respondents were called a minimum of ten times. An established pattern of call-backs minimizes nonsampling errors that occur from certain types of people not being available at particular times of the day. In addition, people who refused to participate in the survey were called back and encouraged once again to complete the survey. The first time a respondent declined to participate in the survey, they were coded as a “soft-refusal.” Their telephone number was returned to the sample database and called again by a skilled “refusal converter,” an interviewer who had been specially trained to convert declines to completed interviews. If the respondent refused a second time, they were coded as a “medium refusal” and again recontacted by a skilled interviewer to try and complete the interview. If the respondent refused a third time, they were coded as a “hard refusal” and their number was removed from the sample database. Declined interviews were reattempted in order to maintain the integrity of the survey study. This refusal conversion process helped to maintain the integrity of the original sampling framework. Telephone numbers that were busy, rang without answer, or were answered by an answering machine were called a minimum eight times at different hours before they were removed from the sample database. Once dead, these numbers were replaced by a phone number from another phone number in the sample. This call-back procedure minimized the possibility of nonrandom bias entering into the data. The survey was fielded 9am to 9pm, every day of the week. No incentives were offered for participation.

The investigators minimized errors by implementing quality-control and edit procedures to reduce errors made by respondents, interviewers and coders. Ratio-estimation to independent age-gender-race-ethnicity population controls partially corrects for bias attributable to survey undercoverage. However, biases in the estimates are unavoidable when missed people have

characteristics different from interviewed people in the same age-gender-race-ethnicity group. The completion rate for this survey was 88% (a total of 3994 calls were made to people who verbally participated (88%) or refused to participate (12%). These figures are relatively high for a survey of this scope and magnitude, and suggest high reliability of survey results. The margin of error associated with data in this study is +/- 1.7% at a 95% confidence level.

For purposes of this research, a visitor is defined as an individual who has entered an NPS unit within the previous 24 months of being contacted for this survey, and is able to accurately identify the unit they entered. Unit names were verified against a list of units provided by the NPS. Employees and family members were screened out of the survey. Fourteen units were inadvertently omitted from this list but determined to be low-visitation units. In addition, 13 respondents reported units that were later determined to be park headquarters or offices. The impact of these errors was determined to be insignificant.

Results and Discussion

Overall, 32.1% of Americans surveyed reported visiting an NPS unit within the last two years and 67.9% reported not visiting an NPS unit. Table 1 indicates the demographic makeup of respondents to this survey. The respondents were subsequently divided into visitors and non-visitors for analysis by income, gender, race, and education.

[Insert Table 1]

Our first focus is to report the public's awareness and preferences of fee strategies. All survey respondents were asked about their familiarity with and support of the NPS RFDP. This study found that most people are unfamiliar with the RFDP. Ninety-five percent of respondents

said they are not familiar with this program, with similar proportions of visitors (94%) and nonvisitors (96%) being unfamiliar with the program. In follow-up questions among the 5% of respondents familiar with the RFDP, 94% are either “somewhat” or “very supportive” of the program. With a note of caution for drawing conclusions on 5% of respondents, support is consistently high among our three major population subgroups (gender, income, education).

Nationally, most visitors are satisfied with current fee levels. Eighty percent of visitors who recall paying an entrance fee or paying for an annual/lifetime pass believe the amount they paid was just about right relative to their experience. Six percent believe they paid too little to get into the unit they visited, while 11% of those paying an entrance fee believe they paid too much to get into the NPS unit.

All survey respondents were asked about their preferences on entrance fees. Two basic options were presented to respondents: 1) Visitors could pay a single, all-inclusive entrance fee and not be required to pay additional fees once inside a unit; or, 2) Visitors could pay a lower entrance fee with additional fees for other services used once inside a unit. This latter option best reflects the fee structure in place today. Forty-one percent of the American public *strongly* supports the lower entrance fee option compared to 21% of the public that *strongly* prefers the larger, all-inclusive entrance fee strategy. Support for the lower entrance fee is relatively similar among visitors and nonvisitors. Sixty-five percent of visitors and 60% of nonvisitors prefer separate fees (see Table 2). In addition, the amount of support for the separate fees option is consistent across all demographic groups, including gender, income, education, age, race, and ethnicity. Among those paying fees, 11% paid additional fees for services such as camping, interpretive tours, movies, plays, boating, parking, and backcountry permits.

[Insert Table 2]

Survey respondents were asked their opinions about how the NPS should manage entrance fees. Three possible approaches for managing entrance fee monies were presented to the public:² 1) All entrance fee money could stay within the unit where it is collected; 2) All entrance fee money could be sent to the NPS headquarters with a percentage going back to the unit where it was collected and the remainder distributed to other units; or, 3) All entrance fee money could be sent to the U.S. Treasury with a relatively small percentage sent back to the NPS to cover costs of collecting the money.

Survey findings indicate that the American public strongly prefers to have entrance fees stay within the NPS (92%) (see Table 3). Beyond this, the public is divided over whether fee revenues should go to NPS with a percentage coming back to individual units (47%), or revenues should stay entirely within the units where they are collected (45%).

[Insert Table 3]

Are Fees a Barrier to Visitation?

The second focus of this article is understanding whether entrance fees limit visitation to NPS units. This section moves beyond a descriptive level of analysis by adopting a multivariate approach to investigate the effect of fees on park visitation. The analysis presented here focuses on two sets of questions: 1) an open-ended question asking nonvisitors why they do not visit and, 2) a closed-ended question asking all respondents to agree or disagree with the statement, “Entrance fees are too high.”

An initial look at the rank order of agreement of statements outlining potential barriers to more frequent visitation suggests that high entrance fees are not a barrier equally across all

² The options were presented to respondents in random order to avoid order-preference effects within the data.

respondents. While three-quarters of all respondents do not agree that entrance fees are too high, there is widespread agreement within specific population subgroups. This section tests whether specific population subgroups are more likely to agree that “entrance fees are too high.”

We postulated that a lack of resources, especially income, provides the best explanation for why some people agree that entrance fees are too high. That is, lower income people are less able to afford entrance fees. Race, ethnicity, and education may also be significantly related to the perception that entrance fees are too high as these demographic characteristics are often closely related to income.

Table 4 profiles nonvisitors who identified high entrance fees as one reason for not visiting more frequently (drawn from the open-ended question). In Table 4, nonvisitors are divided between people who have never entered a NPS unit in their lifetimes and people who have visited sometime in their lives but not during the previous two years. Because the number of respondents captured in this table is quite small ($n= 532$), the analysis should be considered more in descriptive terms rather than for its precise analytical value. We used “Cramer’s V” to reflect the strength of association between two nominal level variables. Larger Cramer’s V values indicate a stronger association. An asterisk (*) next to Cramer’s V indicates that the measure is significant and therefore an important indicator of group differences.

[Insert Table 4]

Table 4 demonstrates that a significant association exists between high entrance fees limiting visitation, and income and education for the population that has never visited a NPS unit. These associations are of moderate strength, indicating that people of lesser income and lesser education view high entrance fees as a barrier to visitation. Another group identified as

nonvisitors is people who visited an NPS unit sometime in their life, but not in the last two years. Ethnicity, age, income, and education are significantly related to whether this group reported that high entrance fees keep them away from parks. However, the strength of association for each of these demographic subgroups is quite weak.

This analysis turns now to the closed-ended question presented to all respondents. Visitors and nonvisitors alike were asked if they perceive ‘high entrance fees’ to be a barrier to visitation. In this analysis, we look at variation in response by demographic subgroups including visitors and nonvisitors. Over one-quarter (27%) of all respondents agree that entrance fees are too high. For the demographic groups presented in Table 5, this percentage of agreement ranges from a high of 38% (Hispanics and respondents with less than a high school education) to a low of 17% (people with post-college education). Race, ethnicity, age, income, education, and visitor status are all significantly related to the perception that entrance fees are too high. Looking at the strength of these relationships, age is weakly related to this perception. Race, ethnicity, income, education, and visitor status are moderately related to this perception. We recognize that there may be an interactive aspect to the analysis. For instance, race may interact with education. In this analysis, Hispanics, lower income respondents and people with less education express the highest levels of agreement that fees are too high.

[Insert Table 5]

For this analysis, the high fees question was collapsed into a variable reflecting whether people agree or disagree that fees are a barrier to visitation. Only the variables that have already been shown to be significantly associated with the dependent variable of ‘agreement that entrance fees are too high’ are included in this analysis. The independent variables included in this analysis are income, education, ethnicity, race (dummy-coded for whites and African

Americans), age, and visitor status. In this equation, White-Hispanic, education, income, age, and visitor status make significant contributions to variation in agreement that entrance fees are too high (see Table 6). More specifically, there is an inverse relationship between race (white, non-Hispanic), education, age, and visitor status with the perception that entrance fees are too high.

[Insert Table 6]

Income is significantly related to the perception that entrance fees are too high; however, the beta for income is 0.000, meaning that income makes no actual contribution to the observed variation. The more important finding from this analysis is that the real contribution of the five significant demographics to explain concern for high fees is very small. R square reflects the percent contribution to the independent variable. In this analysis, the Cox & Snell R Square is 0.059 and the Nagelkerke R Square is 0.083. Thus the demographics entered into this equation explain about eight percent of variation. Our conclusion is that other factors must be making larger contributions to concern for high entrance fees being a barrier. The consideration that income is a major determinant of whether one considers high fees to be a barrier to participation is dismissed at this point and other possible explanations must be explored.

Alternative Explanations

There is evidence that some population subgroups are more likely to perceive that entrance fees are too high. However this perception is not adequately explained by respondent demographics. Of all respondents, 27% indicated that they think entrance fees are too high. The next challenge is understanding why some respondents hold this perception. Factor analysis is a statistical technique that allows for the modeling of underlying dimensions within a dataset. The

test allows for an understanding of whether specific pieces of information contained within variables are meaningfully related to other pieces of data. For this analysis, a factor analysis was conducted with the total list of 13 statements about potential barriers presented to respondents. The results of the factor analysis are found in Table 7.

[Insert Table 7 Here]

A strong, underlying dimension within the data is manifest in Component 1. Agreement with the statement “entrance fees are too high” clusters with agreement with the statement “hotel and food costs are too high” as well as agreement with the statement “service fees are too high.” We interpret this dimension that visitors and non-visitors perceive that it is costly to visit NPS units in general. That is, the entire package of costs rather than any one specific cost, is too high and creates a barrier to park visitation.

Our analysis was targeted at Component 1 and the implications of fees as barriers. However three other components broke out and may warrant further research. Component 2 appears to indicate that the popularity of the NPS system is an issue in that crowding, space for parking and making reservations are related to numbers of people. Three items in Component 3 appear to indicate that NPS units are perceived to be either not safe or not comfortable for non-mainstream groups of society characterized by race, gender, ethnicity or disability. Component 4 included two variable that address knowledge about NPS units and may indicate that advertising or information dissemination is an area for the NPS to explore if it is interested in reaching out to a greater segment of the population.

Conclusion

This investigation utilized a phone survey of 3,515 Americans to assess their knowledge of, and preferences for fee strategies in the National Park System. In addition to assessing the demographics and numbers of visitors and non-visitors in the past two years, we attempted to shed light on why people stayed away from the parks and how visitors perceived NPS fees. We recognize there are limitations on collecting information from people who are asked to recall if they paid a fee to enter a park 12-24 months in the past. Nonetheless according to the survey, 51% of visitors paid a daily or weekly entrance fee during their last visit. Another nine percent of visitors recall paying for an annual or lifetime pass during their last visit to a unit. The survey data do not record information about people who purchased an annual or lifetime pass during a previous visit or about people who entered a unit with someone else who actually paid a fee. However of those who paid a fee only 11% of people paying a daily or weekly entrance fee and four percent of people who purchased an annual or lifetime pass think they paid too much for the experience they received during their visit. Most people (80%) think fee levels are just about right for the value received. This is good news for the National Park Service and proponents of charging fees for public land access.

Further significant findings on public knowledge and preferences for fee strategies include:

- 1) Ninety-five percent of Americans are not familiar with the RFDP. However, among the 5% familiar with the program, 94% are supportive.
- 2) By a two to one margin, Americans support lower entrance fees with additional fees for services utilized within park units rather than one large, all-inclusive entrance fee.
- 3) Ninety-two percent of Americans prefer that entrance fees stay within the National Park Service rather than be deposited in the U.S. Treasury. We interpret this as an indication that the

American public trusts the NPS to administer the fee revenue and that fees should go to specific programs or projects.

Significantly, the perception that entrance fees are too high is shared by some respondents and may be a barrier to visitation. In an open-ended question format, nonvisitors tend to list personal factors such as not having enough time (38%) (also see Kerstetter, Zinn, Graefe, & Chen, 2002) or having to drive too far (37%) as the most important reasons why they do not visit the NPS. High entrance fees fall much further down the list. When prompted directly to say whether or not high entrance fees are too high, about one-quarter (27%) of all respondents agree with this statement.

The multivariate analysis shows that the perception of entrance fees being too high is weakly associated with population subgroups, including people with lower household incomes or lower education levels. The initial regression analysis shows that demographics do not sufficiently explain differences. We conclude that high entrance fees alone are not disproportionately perceived as too high by any one population subgroup. After conducting a factor analysis we conclude that the perception that entrance fees are too high is linked to a broader perception that total trip costs, including food and hotel costs and fees for additional services in the NPS unit, are too high. Fifteen percent of all respondents agree that all three types of expenses are too high. One area that remains vexing is how respondents perceived the exact nature of all expenses incurred during an NPS visit. The phone interview protocol was to read “Now we are interested in understanding why people don’t visit NPS units more often. I am going to read a list of statements. I’d like to you to tell me if you strongly agree . [or] .strongly disagree.” The ‘entrance fees are too high’ statement clearly pertains to the NPS unit. We also assume that respondents associated service fees with the NPS unit. However the hotel/food costs may or may not be specific to the NPS unit. We suggest that it is the hotel and food costs of the

entire trip that respondents are considering. However we recommend further research in this area.

Our investigation does not solve the debate over whether or not the federal lands management agencies should charge a fee to access and use public lands. The results indicate that for a potential visitor to the NPS, the entire package of costs such as, hotel, food, entrance fee, and inside fees contribute to the perception that visitation costs too much. In one sense, this result, in conjunction with finding that 80% found thought the price right for the experience, supports continued fees on NPS lands (assuming plurality is sufficient justification).

Thirty-two percent of Americans, nearly 100 million people, enjoyed an NPS unit in 1998 and 1999. The good news is that managers appear to be providing commensurate benefits for the value of the entrance fees. But, in a larger sense we can not conclude that removing the ‘psychological barrier’ of entrance fees would not invite a demographically broader audience to NPS units. Regardless of the fee strategy the public trusts the NPS and the local managers to use funds appropriately. How would park visitorship change if all areas could advertise that there are no entrance fees and Congress fully funded the ‘best idea we ever had’? How would superintendents reallocate resources currently dedicated to fee collection and how would they maintain that ‘first contact’ with visitors?

In light of current policies in the George W. Bush Administration and Presidential candidate John Kerry’s statement at Grand Canyon NP in August 2004 that the “pay as you go” strategy will likely remain a part of the NPS (Fischer 2004), fees are here to stay for the near future. We, as a society, must still address how to assist and encourage those members of society who have the desire but lack the resources to visit some of the most inspiration natural, historical and cultural places in the United States.

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Table 1
Demographics of Respondents:
Visitors and Nonvisitors Divided into Percent within Category

Demographics	Percent of		
	Total Respondents	Visitors	Nonvisitors
Race (N=3189)			
White (incl. Hispanic)	83%	89%	79%
African American	13%	6%	16%
Alaskan Native/ American Indian	1%	1%	1%
Asian	3%	3%	3%
Native Hawaiian/ Pacific Islander	1%	1%	1%
Gender (N=3486)			
Female	52%	45%	55%
Male	48%	55%	45%
Age (N=3370)			
18 – 34	30%	30%	30%
35 – 59	48%	53%	45%
60 +	22%	17%	25%
Income (N=2803)			
\$0 -- \$19.9K	18%	10%	22%
\$20K -- \$49.9K	42%	36%	44%
\$50K -- \$99.9K	30%	38%	26%
\$100K +	10%	16%	8%
Education			
Less than HS	5%	3%	7%
HS Degree	25%	14%	30%
Some College	32%	30%	33%
College Degree	23%	31%	19%
Post College	14%	22%	10%

Table 2
Preferences for the Structure of Unit Fees

	Total Respondents	Visitors	Nonvisitors
Strongly Prefer All-inclusive Fee	21%	18%	23%
Somewhat Prefer All-inclusive Fee	10%	12%	9%
No Preference Between Two Options	3%	3%	3%
Somewhat Prefer Separate Fees	20%	21%	20%
Strongly Prefer Separate Fees	41%	44%	40%
Don't know	5%	3%	5%
Total	100%	100%	100%

Table 3
Preference for How Entrance Fees Could be Managed

Possible Responses	Total Respondents	Visitors	Nonvisitors
All Money to US Treasury	6%	6%	6%
Money to NPS, % to Units	47%	52%	45%
All Money Stays Within Unit	45%	41%	47%
Don't know	2%	1%	2%
Total	100%	100%	100%

Table 4
Profile of Nonvisitors Stating that Entrance Fees Are Too High (n= 532)

Demographic Characteristic	Never visited	Cramer's V	Visited but not in last 2 years	Cramer's V
Total	9%		2%	
Race		.029 ^b		.014 ^b
White (incl. Hispanic)	8%		2%	
African American	10%		3%	
Ethnicity		.057 ^b	--	.050 ^a
Hispanic	5%			
Gender		.005 ^b		.005 ^b
Female	9%		2%	
Male	9%		2%	
Age		.086 ^b		.064 ^a
18 – 34	8%		1%	
35 – 59	8%		2%	
60 +	14%		4%	
Income		.211 ^a		.100 ^a
\$0 -- \$19.9K	17%		4%	
\$20K -- \$49.9K	5%		2%	
\$50K -- \$99.9K	3%		1%	
\$100K +	--		--	
Education		.301 ^a		.082 ^a
Less than HS	28%		4%	
HS Degree	10%		3%	
Some College	3%		2%	
College Degree	3%		1%	
Post College	--		--	

^a Results are significant and carry explanatory power.

^b Indicates that results are not significant.

Table 5

Profile of respondents saying high entrance fees are a barrier to visitation.

Demographic Characteristic	Percentage
Visitor Status (V=.151 ^a)	
Visitor	24%
Nonvisitor	29%
Race (V=.148 ^a)	
White, incl. Hispanic	25%
African American	34%
Ethnicity (V=.108 ^a)	
Hispanic	38%
Gender (V=.024 ^b)	
Female	27%
Male	27%
Age (γ =.089 ^a)	
18 – 34	29%
35 – 59	29%
60 +	22%
Income (γ =.238 ^a)	
\$0 -- \$19.9K	34%
\$20K -- \$49.9K	30%
\$50K -- \$99.9K	21%
\$100K +	23%
Education (γ =.249 ^a)	
Less than HS	38%
HS Degree	34%
Some College	30%
College Degree	21%
Post College	17%

Note. Gamma values range from 1 to +1, where sign indicates direction and number indicates magnitude of association. Values from 0 -.25 are considered weak, values from .25 to .50 are considered moderate, values from .50 to .75 are considered strong, and values from .75 to 1 are considered very strong. Cramer's V is used for nominal level data while Gamma is used for ordinal level data. Value range interpretation for Cramer's V is similar to that for Gamma.

^a Results are significant and carry explanatory power.

^b Indicates that results are not significant.

Table 6**Binary Logistical Regression Analysis of Relationship Between Demographic Variables and High Entrance Fees Being a Barrier to Visitation**

Demographic Characteristic	B	S.E.	Wald	Sig	Exp(B)
Black	-.020	.202	.009	.923	.981
White-Hispanic	.377	.171	4.838	.028	1.457
Ethnicity	-.195	.160	1.494	.222	.823
Education	.123	.023	28.894	.000	1.131
Income	.000	.000	9.273	.002	1.000
Age	.007	.003	5.383	.020	1.007
Visitor status	.368	.103	12.266	.000	1.445
Constant	-1.891	.356	28.195	.000	.151

Note: White-Hispanic was brought into the analysis as a dummy-coded variable.

Model Chi-square: 139.316***

-2 Log Likelihood: 2713.675

Cox & Snell R Square: .059 Nagelkerke R Square: .083

Table 7
Factor Analysis of Independent Variables*

Variables	Components			
	1	2	3	4
Entrance fees are too high	.881	.101	.136	.080
Service fees are too high	.877	.079	.178	.040
Hotel/food costs are too high	.602	.219	-.004	.312
NPS units are too crowded	.046	.805	.077	-.033
It is difficult to find parking	.079	.720	.170	.101
Reservations must be made too far in advance	.209	.700	.068	.084
NPS employees give poor service	.188	.004	.746	.028
Units are uncomfortable for people of my race/ethnicity/gender	.012	.046	.689	.108
NPS units are not safe places to visit	.023	.249	.415	.291
Units are not accessible to individuals w/ disabilities	.082	.212	.550	.071
Respondent doesn't know much about units	.103	-.004	.048	.736
Takes too long to get to NPS unit	.088	.140	.080	.687
There isn't much info on what to do inside a unit	.127	-.042	.385	.536

Note: * Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations