

Analysis to Assist with Pricing the New Recreation Pass

Final Project Summary

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The Federal Lands Recreation Enhancement Act of 2004 authorized a new recreation pass (hereafter, the NRP) to replace the Golden Eagle Passport and the National Parks Pass. These existing annual passes cover entrance to federal lands that charge a fee for recreational use.

In May of 2005, the U.S. Departments of Agriculture and the Interior issued a national call for scholarly assistance in examining possible prices for the NRP. In June the University of Wyoming, through its Wyoming Survey & Analysis Center, submitted a project proposal. In July the federal agencies selected the Wyoming research team to provide the assistance requested, through a Cooperative Task Agreement (number H-1200040001) under the Rocky Mountain Cooperative Ecosystems Studies Unit. The study design, analyses, and results have subsequently benefited from expert review by consultants from Arizona State University and the University of Alberta.

The project consisted of the five interrelated tasks summarized here.

Task 1 was the production of a “roadmap” detailing the steps to be taken for completing the remaining tasks. This document drew on the initial proposal and on communications with federal agency personnel, including a meeting in August in Washington, D.C. The research plan was also discussed at a conference with stakeholder groups held in September at the Department of the Interior. Portions of the roadmap then formed the basis for submissions to the Office of Management and Budget (OMB), seeking approval for collecting data from the public.

Task 2 was a “benchmarking” study to compare existing federal passes with those for state park systems and Parks Canada. Personal interviews with officials of six state park offices and Parks Canada supplemented information obtained from the Internet and from published sources.

Task 3 examined theoretical and methodological issues in the economics of non-market valuation. That effort informed both the roadmap document and a subsequent econometric examination of survey data. Both the theoretical and the empirical analyses received detailed external review by two internationally known environmental economists.

Task 4 involved focus groups held between September 11 and September 29, 2005 (under OMB Approval Number 1024-0224) in Boston, Richmond, Portland (OR), Fresno, Madison, and Salt Lake City. A preliminary group discussion had previously been held in Laramie (WY). The focus group report included full transcripts of the six focus group meetings.

Task 5 was a national telephone survey conducted from February through April, 2006 (under OMB Approval Number 1024-0248). A total of 3773 households in two distinct sub-samples provided data. An internationally known expert on sampling was consulted on the design and analysis of the dual-frame sample. Of the households surveyed, 2080 met the screening criteria for the main analysis, as determined by the sponsoring agencies (which limited the target population to households that had visited federal lands in the past two years and that would not qualify for either a Golden Age or a Golden Access Passport). Eligible households included 556 in a nationally representative sample (Random Digit Dialing) and another 1524 households in a probability sample from a list of telephone numbers of recent pass purchasers provided by the National Parks Foundation.

As noted, the roadmap document (Task 1) laid out the research design.

- The three external consultants provided important input on various portions of the research plan, as did personnel from the federal land management agencies and from OMB.
- The University of Wyoming team remains solely responsible for the final research design, for all decisions made in implementing the project plan, and for the conclusions reached here and in the project reports.

The benchmarking study (Task 2) reached the following findings:

- Adjusted for inflation, both the \$65 Golden Eagle Passport (GEP) and the \$50 National Parks Pass (NPP) are now more than 10% cheaper than they were when the NPP was introduced in the year 2000.
- With pass purchasers averaging three or more entrances per year, those two existing annual passes provide a cost savings to multi-visit households and a revenue loss to federal land management agencies, relative to the typical gate fees for entrance that are forgone as a result of the passes.
- Parks Canada offers fewer recreational sites than the U.S. National Park Service, and far fewer than all federal land management agencies combined; nevertheless, at about \$140 per year in U.S. dollars, the Canadian pass costs almost triple the price of the NPP, and more than double the price of the GEP.
- No state park system in the U.S. offers the number or variety of outdoor recreational venues available on federal lands; nevertheless, eighteen states have annual passes priced equal to or greater than the NPP, topped by California's state parks pass at \$125 per year.

The theoretical analysis (Task 3) developed an economic model to guide the use of standard non-market valuation methods. Key points included:

- The price of the NRP will affect not only revenues and visitation, but also educational goals as well as visitor congestion, air and water pollution, and damage to trails and roads; a formal analysis of such additional benefits and costs is beyond the scope of this project.
- As stipulated in the call for assistance, total revenues across all of the federal land management agencies should not be less than total revenues in the absence of a pass program (the "revenue neutrality" constraint); it is outside the scope of this project to assess the effect of pricing on the distribution of revenues, or to determine the economically efficient manner in which to allocate revenues among the federal agencies.
- Setting a high price for the NRP is more likely to maintain revenue neutrality; setting a low pass price may reduce gate revenues but could be desirable to increase visitation to federal recreation sites.
- The pass price can be adjusted upward to account in advance for future cost-of-living increases in gate fees, or for the anticipated costs of marketing and distribution.
- A fundamental concern of any contingent valuation study is "hypothetical bias," since respondents tend to state willingness to pay (WTP) values that are greater than those revealed in real-market interactions.
- This project has a built-in opportunity to calibrate hypothetical WTP values with real choices, by taking advantage of the fact that the NRP is similar to the existing GEP as currently sold in the marketplace.

The focus groups (Task 4) served to identify themes and issues to be addressed quantitatively in the other phases of the study, and to pre-test the survey questionnaire. They also provided suggestive qualitative information on the following topics:

- Focus group participants valued federal lands as part of the American national identity.
- They expressed concerns over the fee structure for access to federal lands.
- They offered suggestions for improved marketing efforts, such as better advertising and more attractive pass options and benefits.
- Their opinions about pricing the NRP varied widely, with some participants favoring a price no higher than the current GEP, and others willing to pay a substantially higher amount if assured that the revenues would be used for “stewardship,” to protect and enhance the nation’s lands.

The survey (Task 5) provided both descriptive data and the empirical basis for econometric analyses. Descriptive findings included:

- Households in the National Parks Foundation (NPF) sample of recent pass purchasers tend to have higher socioeconomic status, travel farther and more often to visit federal lands, know more about existing passes, and express a higher willingness to pay for the pass than households in the Random Digit Dialing (RDD) sample.
- The RDD and NPF households engage in generally similar activities on federal lands.
- Reports of expected visitation and future pass purchasing from the NPF households are more in line with their actual previous behaviors than is the case for the RDD households.
- Both groups report being influenced by a combination of factors in their decisions about purchasing an annual pass, including economics, convenience, and stewardship.

Finally, econometric analysis yielded the following conclusions:

- Willingness to pay for the NRP is significantly related to factors such as a desire that pass revenues be used for maintenance and services on federal recreation sites, number of typical visits, household income, race, gender, and region.
- Statistically, the predictive power of the econometric model is modest; therefore, we generate revenue projections from the raw WTP data as well as from the model.
- The NPF households are more familiar with existing passes, and their WTP reports show correspondingly less hypothetical bias than the WTP reports from the RDD households.
- Calibrated for hypothetical bias, NRP revenues could be maximized at a pass price in the range of \$25 to \$35 (based on the RDD sample) or \$45 to \$60 (using the NPF sample), but such a pass price would likely result in substantial forgone gate revenues.
- Assuming that gate entrance fees were to remain at their current level and that households primarily purchase the pass to save money at the gate, the calibrated raw data from either sample indicate that a pass price of \$125 or above should come close to revenue neutrality.

The aim of this project was to provide information from multiple sources for use by policy makers in federal land management agencies to determine a price for the new recreation pass. The various kinds of information resulting from the project have been summarized above. Details on the methods and results are provided in the full reports on the five specific tasks.