Economic And Social Values of Vermont State Parks – 2002

Executive Summary

Prepared for
Vermont State Parks
Department of Forest and Parks and Recreation

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Introduction

Resident and nonresident campers and day-use visitors to Vermont state parks spent an estimated $55,571,095 in Vermont in 2001 on goods and services directly related to their state park activities. They were also willing to spend an additional $3,271,769 annually in the event that current funding sources are not available. This strong support for the Vermont state parks is due to the great importance placed on recreation, aesthetics and the educational values that campers and day-use visitors derive from the parks. More detailed information on the 2001 state park visitor is contained in the “Economic and Social Values of Vermont State Parks – 2002”. The purpose of this study was to gather information that would aid park managers in developing and implementing effective and appropriate park policies. Specific study objects include:

- Developing base line information about state park use and users
- Estimating the economic value of the state park system.
- Estimating the financial impact of state park visitor expenditures on the local and state economy.
- Determining the park values and environmental ethics of state park visitors.

Study Methods

The data contained in this report were obtained from a systematic random sample of campers and day-use visitors to Vermont State parks during the summer of 2001. Separate versions of a 12 page questionnaire were distributed by park personnel to campers and day-use visitors at prescribed times during weekdays and weekends. Campers and day-use visitors who agreed to participate in the survey were asked to complete the questionnaire and retain it through the U.S. mail. The return address was printed on the back cover and postage was prepaid. Participants who did not return the questionnaire within two weeks were sent a follow-up reminder letter and another copy of the questionnaire. A total of 2,323 questionnaires were distributed. A response rate of thirty-one percent was attained, yielding 681 completed questionnaires.

State Park Use and Users

The study gathered baseline information on park use and users, including demographic and socio-economic characteristics, state park use patterns, and visitor attitudes toward the state parks. (Page numbers in parenthesis refer to pages in the full report, “Economic and Social Values of Vermont State Parks – 2002” which can be found on-line at http://snr.uvm.edu/vtdc/.)

Who are state park visitors?

- State park visitors cover a wide range of ages, however the average age of campers is 44.1 years and the average age of day visitors is 46 years. Approximately 10 percent and 16 percent of campers and day visitors, respectively, are 60 and over (p. 59).
State park visitors are generally well-educated, with the level of education averaging approximately 16 years (p. 59-61).

State park visitors are generally well-off financially, with a median annual household income in the range of $50,000 to $59,000. Fewer than 10 percent of state park visitors have an annual household income of less than $20,000, while between 15 and 20 percent of visitors have an annual household income of $100,000 or more (p. 61-62).

Most state park visitors (54.6% of campers and 61.3% of day visitors) live in either urban or suburban areas (p. 62).

The majority of campers (63.3%) live outside Vermont, while the majority of day visitors (54.6%) are Vermonters.

The vast majority of all state park visitors (73.8% of campers and 76.7% of day visitors) are employed full-time (p. 57-58).

Campers are equally split between males and females, however the majority of day visitors (62.5%) are female (p. 58).

**What are state park use patterns?**

- Most state park visitors come in small groups of 2-4 people; median group size is 3. Fewer than 10% of groups are comprised of 10 or more people (pp 38-39).
- The vast majority of state park visitors (76.2% of campers and 72.8% of day visitors) are family groups (p.39).
- Most state park visitors are repeat visitors. The median number of previous visits for campers is 8, while the median number of previous visits for day visitors is 12 (pp. 39-40).
- Most state park visitors come to the state parks more than once each year. The median number of visits per year for both campers and day visitors is 2 (pp. 40-41).
- A majority of campers (65.6%) spend most of their time in the state park they are visiting. (pp.41-42).
- Campers spend an average of 3.7 nights in a Vermont state park per visit.
- The most popular recreation activities of campers are camping, hiking, swimming, and picnicking. The most popular recreation activities of day visitors are picnicking, swimming, hiking and boating. (pp. 43-44).

**What do state park visitors think about the state parks?**

- Campers rated most state park facilities and services very highly. The highest rated facilities and services were overall value of the experience, overall satisfaction, ease of check-in, helpfulness of staff, availability of firewood, and maintenance of park. The lowest rated facilities and services were number of restrooms and availability of supplies (pp. 45-46).
- Day visitors rated most state park facilities and services very highly. The highest rated facilities and services were ease of check-in, value of the experience, overall satisfaction, maintenance of park, and helpfulness of staff. The lowest rated
facilities and services were availability of supplies and availability of firewood (p. 46).

- Both campers and day visitors reported that cleanliness, beauty and nature/nature protection were what they liked the most about the state parks (pp. 49-54).
- There was little consensus about changes needed to state parks to motivate increased attendance. The most common suggestions among campers were hook-ups and location of parks closer to population centers. The most common suggestions among day visitors were allowing dogs and lower entrance fees (pp. 54-56).
- A large majority of both campers and day visitors reported that they would visit the state parks in the fall if they stayed open longer. Smaller majorities reported they would visit in the spring if the parks opened earlier. Only a minority reported they would visit during the winter (pp. 56-57).
- Approximately half of both campers and day visitors supported development of alternative campsites such as treehouses and teepees (p. 57).

**Economic Impact of the Vermont State Parks**

**Visitor Expenditures**

Visitor expenditures consist of purchases of park-related durable and nondurable goods and services, in Vermont, by resident and nonresident campers and day-use visitors. Nondurable purchases consist of expenditures on goods and services that are “consumed” during the course of the park-related activity (e.g. food, transportation, lodging, rental fees). Two types of nondurable expenditures were requested, those within 10 miles of the park and Vermont expenditures beyond 10 miles.

Durable expenditures consist of goods that are not generally consumed during a park visit (e.g. camping equipment, boats, clothing). Since these items may be used for other purposes, respondents were asked to list the 2001 purchase price of the durable good and the percent of the purchase price attributable to Vermont state park use. This was used to calculate the 2001 park-related durable expenditure.

**What do campers spend on nondurable goods and services?**

- Resident campers spent an average of $143.88 within 10 miles of state park in which the camped and an additional $121.57 in other parts of Vermont. Their total average 2001 expenditure was $265.45 (p. 7). The largest expenditure was for food purchased in stores and camping fees.
- The estimated total expenditure by all resident campers in 2001 was $3,374,732 (p. 10).
- Nonresident campers spent considerably more than residents within 10 miles of the state park in which they camped, an average of $187.59 and only slightly more in other parts of Vermont ($136.91). Their total 2001 expenditure was $324.50 (p. 8). The largest expenditures, like residents, was for food purchased in stores and camping fees.
• The estimated total expenditure by all nonresident campers in 2001 was $14,231,109 (p. 10).
• The combined resident and nonresident camping-related expenditure in 2001 was $17,605,841 (p. 10).

What do day-use visitors spend on nondurable goods and services?

• Resident day-use visitors spent an average of $38.94 within 10 miles of the park being visited and $39.37 in other parts of Vermont. Their total average expenditure in 2001 was $78.31 (p. 8). Food purchased in stories and entrance fees were their largest expenditures.
• The estimated total expenditure by all resident day-use visitors in 2001 was $4,659,739 (p. 10).
• Nonresident day-use visitors spent an average of $62.50 within 10 miles of the park being visited—approximately 61% more than resident day-use visitor—and $64.60 or 64% more than residents in other parts of Vermont. The total average nonresident day-use expenditure was $127.12 (p. 9). Lodging and food purchased in stores was their largest expenditures (p. 9).
• The estimated total nonresident day-use expenditure by nonresidents was $6,234,049 in 2001 (p. 11).
• The combined resident and nonresident day-use visitor expenditure on park-related nondurable goods and services $10,893,788 in 2001 (p. 11).
• The estimated overall total nondurable expenditure of resident and nonresident campers and day-use visitors in 2001 was $28,499,629 (p. 11).

What do campers spend on durable goods?

• Resident campers spent an average of $979.40 on durable goods directly attributable to camping in Vermont state parks in 2001. The largest expenditures were for camping trailers/camping trucks and motor homes (p. 12).
• The total estimated durable good expenditure by resident campers was $12,451,112 in 2001 (p. 14).
• Nonresident campers spent considerably less than resident campers on durable goods in Vermont (159.84). Logic suggest that most durable goods are purchased in the state where the camper resides. The largest Vermont purchases were for camping trailer/truck and camping equipment (p. 12).
• The total estimated nonresident durable good expenditure in Vermont was $7,009,943 in 2001 (p. 14).
• The combined resident and nonresident durable good expenditure was $19,461,055 in 2001 (p. 14).

What do day-use visitors spend on durable goods?

• Resident day-use visitors spent an average of $99.81 and nonresidents spent an average of $34.08 on durable goods in 2001. The largest expenditure by both residents and nonresidents was for boating equipment (P. 13).
- Total estimated resident durable expenditure in 2001 was $5,939,094 and the nonresident expenditure was $1,671,317. The combined total was $7,610,411 (P. 15).
- The estimated overall durable expenditure of resident and nonresident campers and day-use visitors was $27,071,466 in 2001.

**Willingness-to-Pay**

The value of a state park is the maximum amount of money a person is willing-to-pay to use, protect and/or maintain a park(s) over and above what he or she actually pays to use it. These values are generally measured through the use of dichotomous choice and open-ended forms of contingent valuation (please refer to the full report for detailed descriptions of these valuation methods).

Park visitors’ willingness-to-pay for the continued existence and maintenance of the Vermont state park system was measured using both dichotomous choice and maximum willingness-to-pay and two different payment vehicles, annual contributions and use fees. Two forms of contingent value were used because the preferred dichotomous choice method is data sensitive so the open-ended method was included as a back-up measure.

**Annual Contribution**

In setting up the hypothetical situation for the willingness-to-pay question, campers and day-use visitors were asked to assume that state parks would no longer charge entrance fees or camping fees but would be funded solely through annual contributions.

**How much are campers willing to pay in annual contributions?**

- Resident campers were willing to pay an average of $121.85 annually to insure the continued existence and maintenance of Vermont state parks, nearly double the $64.87 that nonresident campers were willing to pay (p. 17).
- The total annual willingness to pay by nonresidents was 256% greater than the total resident willingness to pay, $1,673,493 vs $469,418. This was due to the fact that nonresident campers out-numbered resident campers almost four to one (p. 18).
- The total annual camper willingness to pay was $2,142,911 in 2001 (p. 18).

**How much are day-use visitors willing to pay in annual contributions?**

- Day-use visitors were less financially committed to the Vermont state parks than were campers.

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1 The results of the open-ended method of contingent valuation are not included in this executive summary but are presented in the full report.
• Resident day-use visitors’ average willingness to pay was $41.59, a third of camper willingness to pay and nonresident willingness to pay was $20.35, less than half of the nonresident camper willingness to pay (p. 17).
• The total annual day-use visitor willingness to pay by residents was $603,603 and $525,255 by nonresidents. The combined annual total for residents and nonresidents was $1,128,858 (p. 18).

What is the total amount campers and day-use visitors are willing to pay in annual contributions in 2001?

• The combined total is $3,271,769 (p. 18).

Campsite/Entrance Fee

In setting the hypothetical situation for requesting the maximum willingness to pay for camping and entrance fees, respondents were asked to assume that Vermont state parks would be funded solely through the collection of camping and entrance fees.

How much are campers willing to pay in camping fees?

• Nonresident campers were willing to pay slightly higher camping fees than were residents. Nonresidents were willing to pay $27.42 per day vs $25.73 for residents (p. 21).
• The estimated total annual fees paid by nonresidents would be $3,607,567 and $981,342 by residents (p. 22).
• The combined annual resident and nonresident total willingness to pay camping fees is $4,588,909 (p.22).

How much are day-use visitors willing to pay in entrance fees?

• Residents are willing to pay $5.05 and nonresidents $6.46 (p. 21)
• The total annual collection from entrance fees is estimated to be $300,495 from residents and $316,805 from nonresidents (p. 22).
• The combined total is $617,300 (p. 22).

What is the total amount campers and day-use visitors are willing to pay in annual camping/entrance fees in 2001?

• The combined total is $5,206,209 (p.23).

Gross Annual Value of Vermont State Parks

The gross annual value of Vermont State Parks is $58,842,864 (p. 26)

Nondurable expenditures  28,499,629
Durable expenditures  27,071,466
State Park Values and Environmental Ethics

The study gathered information on why visitors think state parks are important and the general environmental ethics of state park visitors.

Why are state parks important?

- State park visitors reported they think that state parks have many values for society. The relative importance of these values is shown in Table 1. The most important values of state parks are their beauty and the recreation and educational opportunities they provide. The least important value is as a source of material goods such as timber and minerals (pp. 27-30).

Table 1. Importance of Reasons for Having State Parks

<table>
<thead>
<tr>
<th>Values</th>
<th>Campers</th>
<th>Day Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>State parks are places to enjoy the beauty of nature</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>State parks are places to enjoy outdoor recreation activities</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>State parks are places to learn about nature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>State parks are places to express our moral or ethical obligation to respect and protect other living things.</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>State parks are places to maintain or regain one’s health and mental well-being.</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>State parks are places to protect the environment in order to ensure human survival.</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>State parks are places that can enhance the economy through tourism.</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>State parks are places to get in touch with one’s self</td>
<td>8</td>
<td>9</td>
</tr>
<tr>
<td>State parks are places to go to think because civilization cannot interrupt</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>State parks are places that are important to the history of this area.</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>State parks are places to conduct scientific studies on the natural environment.</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>State parks are places to get closer to God or spiritual matters</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>State parks are places that show us what it must have been like for the first settlers of this area.</td>
<td>13</td>
<td>13</td>
</tr>
<tr>
<td>State parks are places to get timber, minerals and other resources for society to use in the future.</td>
<td>14</td>
<td>14</td>
</tr>
</tbody>
</table>
State park visitors reported that they think protecting the state parks for future generations is a more important value than using the parks now (p. 31).

What are the environmental ethics of state park visitors?

State park visitors were asked the extent to which they agreed or disagreed with 17 potential environmental ethics. Ethics receiving the greatest support included 1) nature adds to the quality of our lives, and 2) nature will be important to future generations. There was also strong agreement that 1) animals should be free from needless pain and suffering, 2) human survival depends on nature and natural processes, 3) cruelty toward animals makes people less human, and 4) the supply of goods and services provided by nature is limited. Lowest levels of agreement were reported for the beliefs that 1) nature is sometimes evil, 2) nature can be dangerous to human survival, and 3) humans were created as fundamentally different than other living things (pp. 32-37).