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State parks and their gateway communities

Development and recreation planning issues in Wisconsin

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Executive summary

Community development increasingly focuses attention on recreational use of natural assets and the tourism development brought about by visitor spending. Throughout Wisconsin, the state parks and trails system provides important opportunities for regional tourism and its associated business growth. The parks and trails system attracts an increasingly large number of visitors who spend money in local business establishments. Furthermore, residents throughout Wisconsin are regularly impacted by visitors to their locale drawn by the available amenities found within and around their communities. The characteristics of visitors and the manner in which they result in local impacts provide the focus for this report.

A two-year study was initiated in early 1999 to study the use of the Wisconsin State Parks and Trails System and its impacts across the state. Specifically, face-to-face and written mail surveys were combined with statewide telephone surveys throughout the study period. Results provide important information on both current recreational use characteristics and trends that have been experienced over time.

The following key results suggest that the effect of the state parks and trails system on communities throughout Wisconsin is both important and complex.

Parks and trails management

- Local input into how parks and trails are developed, maintained, and managed is complicated by issues of control.
- Parks and trails visitors are generally satisfied with the level of services and maintenance at the parks, although of the two, there is slightly less satisfaction with maintenance.
- Parks and trails visitors generally feel safe when they visit the Wisconsin State Parks and Trails System.
- The presence of park rangers contributed to increased perceptions of safety and security.
- While parks and trails visitors did not indicate that they were frequently disturbed by the behavior of fellow park visitors or worried about theft, there was a slightly stronger agreement that park rangers should spend more time enforcing park rules and controlling visitors that disturb others.
- Parks and trails visitors recognized that the WDNR Bureau of Parks and Recreation does a good job preserving Wisconsin's most significant places for future generations and providing places for quiet and scenic outdoor recreational activities
- Parks and trails visitors identified that WDNR BPR management priorities should continue to emphasize protection of natural ecosystems and future work should emphasize the provision of less crowded recreational conditions.

Recreation planning

- Slightly more that one-quarter (27%) of Wisconsin residents visited parks or trails regularly.
- Parks and trails visitors were, on average, well-educated.
- There were significant differences between parks and trails visitors with respect to occupational structure with trails visitors tending to be employed in more "white collar" professions.
- There were also significant differences in annual household income between parks and trails visitors.
- Overnight visitors to state parks were largely comprised of people who enjoyed camping.
- Additional amenities including RV sewage disposal, garbage disposal and recycling, public telephones, snack shops, canoe/kayak rentals, and bicycle rentals were identified by visitors as important and appropriate for siting within parks and trails boundaries.
- Travel-based conveniences such as cash machines, snack shops, and recreational equipment rental were perceived by visitors to be important private concessionaires and appropriate to include within park boundaries.

- Opportunities exist in further development of trails and the situation of retail and service establishments relative to where the trail is positioned. A policy issue in this respect could include access by private firms to locations directly adjacent to or on state trails.

Economic impacts of the Wisconsin parks and trails system

- While on trips, parks and trails users focus their spending on groceries, eating and drinking, and automobile-related expenses. In total, this spending amounts to an average of about $190 per group, per trip.
- The level and type of spending is largely determined by group type, length of stay, and availability of local business offerings
- Out-of-state park users injected roughly $225 million into the Wisconsin economy during the 12-month written survey period.
- This out-of-state spending translated into a total economic impact on the state economy of roughly $350 million annually.
- In assessing the economic importance of the Wisconsin State Park System, both total visitor expenditures and the "multiplier" effect of new dollars flowing into the state account for roughly $650 million annually.

Tourism and local economic development

- A general understanding exists among parks and trails visitors of the importance of visitor spending to local communities.
- Although parks and trails users may exhibit concern about local development, they tend to view local industrial, commercial, and residential developments as a *dis*-amenity, particularly in relation to their recreational use.
- Local civic leaders were generally positive about the role of the park and its visitors in contributing to local economic development.
- Local civic leaders were also concerned with how tourism compares with other forms of development.
- The potential of tourism is well-understood as a source of business receipts for owners of retail and service firms.
- Local residents voiced the concern that although park and trail visitors spend money locally, they also place increased demands on local services.
- It appeared difficult to generate support among local residents for the seasonal economic boost associated with tourism, especially given displacement of local use, the increased need for local services, and the perceived marginal benefits associated with visitors being present within their local community.

As we move toward more integrative approaches to rural development that view recreation and tourism as one of many economic activities appropriate to amenity-rich regions, progressive policies that are holistic and systemic need to be crafted. These policies could realistically incorporate the linkages required to equalize benefits and costs of producing the stock resources upon which recreation and tourism are based. Indeed, there are costs associated with recreational resource management for public goods that are rarely recovered by those who produce these goods. This is particularly acute for public goods that are produced on state-owned lands and demanded by recreationists and tourism interests.

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chapter 1

Introduction and research overview

The overall goal of this project was to more clearly identify the role of state parks and trails in community development throughout Wisconsin.

Public policies increasingly focus on leisure travel and tourism as economic development strategies for rural communities. These policies, coupled with improved infrastructure and increasing levels of leisure travel, place the presence of natural amenities and the supply of outdoor recreational opportunities in an important spotlight. Much of the policy discussion deals with the role recreational sites play in the socioeconomic development of communities that surround them. In the past, recreation professionals and community development practitioners have responded to these questions in an *ad hoc* fashion, typically relying upon anecdotal evidence. Simply stated, the mechanisms that link recreational resources to socioeconomic measures are not well understood.

The Wisconsin State Parks and Trails System provides key natural amenities that attract visitors to rural regions. Through expenditures on-site and in nearby communities, visitors to these parks and trails provide increased demands for local businesses. Additionally, parks and trails provide important quality-of-life values and natural amenities to residents of the state. This research was undertaken to answer several key questions that will help our understanding of how parks and trails affect local economic and social conditions. How important are parks and trails to the underlying motivations for travel? How can we characterize visitors to the Wisconsin State Parks and Trails System? To what extent do these visitors affect local business activity? How well integrated are parks and trails within local socioeconomic structures? How do locals view these recreational sites, their visitors, and the impacts that use of these public lands have on local conditions? These questions provide the basis for the work addressed in this report.

Objectives

The overall goal of this project was to more clearly identify the role of state parks and trails in community development throughout Wisconsin. Particular focus attended to community impacts felt by residents of cities, villages, and towns that surround these parks.

Specifically, our objectives can be summarized along three specific themes:

- Describe the variation that exists among visitors to the Wisconsin State Parks and Trails System with respect to demographic characteristics, recreational habits, service preferences, and spending patterns.
- Assess the current fee structure with respect to demand for outdoor recreation within the context of the Wisconsin State Parks and Trails System.

- Estimate the local social and economic development impacts of the state park system on communities surrounding state properties and identify the attributes of net benefit derived from the state park system.

Brief literature review

An emerging concept in nature-based tourism and rural development is that of a "gateway" community (Howe, McMahon, and Probst 1997). This concept has primarily been looked at from a Western United States perspective given the prevalence of publicly owned land bases in the West and their apparent lack of integration with surrounding communities. We argue that the fundamental aspects of "gateway" communities can be likewise applied to rural communities elsewhere, and in particular, here in the Midwest. Although the context changes, fundamental "gateway" community issues remain. These typically revolve around the role of recreational sites in economic development, land use policy, and residential/commercial developments.

"Gateway" communities are defined as such because they are near publicly owned natural areas that attract visitors who pass through to reach their destination. Increasingly, people who visit an area as tourists return as part-time or year-round residents. One significant challenge associated with these choices is the protection of that which makes a place attractive in the first place.

Of specific interest to this debate are questions that underlie community development conflicts pertaining to local land use, economic development, and nature-based tourism. Recent literature has identified very different perceptions toward tourism development based on place of primary residence (Madrigal 1995; Spain 1993; Pfeffer and Lapping 1994).

Rural planning effectiveness can be described as a function of the interplay between involved stakeholders. In most recreational and tourism situations, these interdependent stakeholders include both the public and private sector, the community as a whole, visitors to the region, and the natural resource base that supports outdoor recreation. In an exploratory case study of a regional tourism development planning process in Alberta, Canada, Getz and Jamal (1994) found that the key components of successful recreational development relied on not only the financial viability of the project, but on local public opinion and the relative strength and power of a broad set of stakeholders.

To use a cliché, the impacts and beauty of rural recreational developments are in the eyes of the beholder. There is a considerable and growing body of literature that attempts to identify differential perceptions of rural tourism as viewed by different stakeholder groups (Martin 1995; Madrigal 1995; McCool and Martin 1994; Lankford 1994; Lindberg et al. 1994; Prentice 1993; Allen et al. 1993; Canaday and Zeiger 1991; Allen et al. 1988; Ap and Crompton 1992; Ap 1990; Ladewig and McCann 1980; Goudy 1977).

Important differences exist in how recreational sites and rural communities are viewed by tourists, residents, and tourism-sensitive business owners. Recreationists tend to choose destinations based on physical appearance, human sociocultural comfort and affordability in the short-term. Residents of destination areas view tourism through a lens that is colored by direct impacts of recreating tourists on their hometown. Relevant recreation and tourism issues for local residents typically include crowding, localized price inflation, sociocultural cross-filtration, and economic opportunity. Tourism businesses tend to view development with an over-riding interest in increasing the demand for the goods and services they sell.

These differential attitudes transcend direct financial impacts to include underlying issues of regional economic growth and land use. Studying a rural Wisconsin Northwoods region, Green et al. (1996) found that local residents were much less supportive of land use planning than were incoming amenity migrants to the region. Furthermore, their data suggest that the longer these two groups reside in the area, the more divergent their views on land use and zoning become. These results are consistent with those of Jordan (1980) and underscore the importance of looking at recreational developments with respect to the perceptions of relevant stakeholder groups.

Also, within these stakeholder categories, income and race play an important role in forming attitudes and perceptions of tourism and its impact on "quality of life" measures (Crotts and Holland 1992).

Smith (1989), in work on tourism impacts in the Southern United States, found that as communities moved toward reliance on tourism as their economic mainstay, significant changes in job structure and income source were felt by those in lower income categories. Predominantly filled by women, the jobs offered by tourism development were not sufficient to sustain household needs and acted to subjugate workers in a continuing subservient role.

Thus, it is important to consider how involved different stakeholder groups are in the planning process. The very real possibility of excluding certain stakeholder groups can easily derail implementation of comprehensive recreation planning initiatives. Strategies have been developed for responding to recreation and tourism impacts by stakeholder groups and include embracement, tolerance, adjustment, and withdrawal (Ap and Crompton 1993). More integrative approaches to tourism and recreation planning are collaborative and incorporate careful assessment of local and regional impacts (Marcouiller 1997).

The impacts associated with recreational developments on community and regional change have a growing academic literature. From demographic and economic assessments of the role recreational amenities play in migratory and developmental change (Beale and Johnson 1998; Deller et al. 2001; English et al. 2000) to specific assessments of recreational sites and their regional economic impacts (Bergstrom et al. 1990; Keith and Fawson 1995; Keith et al. 1996), it is becoming increasingly clear that natural amenities and their use as primary motivators for tourism development largely explain the economic turnaround in many rural areas of the United States.

Important differences exist in how recreational sites and rural communities are viewed by tourists, residents, and tourism-sensitive business owners.

Research specific to state parks

Past domestic research has highlighted the role of parks within a rural development context; note however that most have a particular focus on federally owned parks managed by the USDI Park Service (compare Machlis et al. 2000; Howe et al. 1997). State parks are similar to national parks in many respects, but significant differences limit generalizations of national park research to state park contexts. These differences include funding structure, level of use, scale of operation, mission and programs, and history. In addition, much of the research on national parks focuses on single parks within a specific region. These are often focused on highly used and generally controversial parks or regions. This type of research is in many ways hardest to generalize to state park situations.

The research emphasis on state parks has mostly been on the economic impact of parks on the state or local community; very little work has been done to evaluate the roles of state parks in protecting natural resources or providing outdoor recreation opportunities. The reporting that is done on these aspects tends to originate from within the managing agency; examples include annual reports, strategic plans, or statewide outdoor recreation plans. These documents are a source of statistical data on park usage and conditions, but are somewhat limited in scope and rarely explore the positive and negative aspects of parks and their operations. A notable exception is the work by Morgan (1996) which discusses the bind that many park systems find themselves in when state legislatures emphasize income-generating aspects of parks. High levels of usage may not always be compatible with resource protection, and Morgan argues that many systems become caught up in the need to attract more and more visitors at the peril of the parks themselves. Morgan's work does not investigate the integrated aspect of state parks or the ways that parks and communities may develop and maintain reciprocal relationships.

A notable exception is recent work by Cavaye (1997) that involved an in-depth exploration of Devil's Lake State Park in his dissertation on the role of a state agency (Wisconsin Department of Natural Resources) in building social capital in rural Wisconsin communities. He found that the park manager played a very positive role in the communities near the park and contributed to their ability to manage and develop growth issues. In addition, he found many community members felt "removed" from the picturesque park in their backyard, "separated from an isolated entity managed by the state" (Cavaye 1997, p. 139).

Outline of report

Our work reported here sets out to fill some of the gaps in the understanding of Wisconsin state parks and their neighboring communities. The first section is a review of the methods used to collect the data. We follow this with a descriptive analysis of the resulting data. Within this results section, we first outline overall state park usage, including user demographics and the activities engaged in both at the park and elsewhere. The next section explores visitor perceptions of the Wisconsin state park and trail system, as well as the areas surrounding park properties. This is followed by a discussion of the direct, indirect, and induced economic impacts of park visitation on Wisconsin regions. We conclude the report with an outline of policy implications and further research needs.

chapter 2

Research methods

In the research reported here, we collected a broad array of data about state parks and trails using both random-sample surveys and focus group interviews. We focused on three primary groups: (1) state-wide households; (2) park and trail system users; and (3) interest groups within communities surrounding park properties.

Statewide households

Our work began in early 1999 with a series of telephone interviews administered randomly across the state. These were conducted by the Wisconsin Survey Research Laboratory (WSRL) as part of its seasonal Wisconsin Opinions Survey. We inserted one minute of questions that focused people's attention on state parks and trails. Ultimately, the telephone survey set out to find an answer to the elusive question of how many Wisconsin residents visit state parks and trails. While the Wisconsin Department of Natural Resources maintains records on gross visitation levels and permit sales, this information does not indicate what portion of the overall state population actually goes to parks. The WSRL conducted interviews through short, random-digit-dial telephone surveys. Realizing that many respondents do not visit parks, the telephone survey also included a set of questions exploring reasons why people chose not to go to parks and how they learn about state park and trail activities.

The telephone survey of park visitors was conducted in two phases: one during the spring of 1999 and the other in the fall of the same year. These two samples represent "off season" and "summer season" samples, as the questions emphasized respondents' activities during the previous three months.

Questions were designed to determine how many people in Wisconsin had visited a state park in the preceding three months. This included a question asking respondents to identify the park that they had visited most recently as well as a question asking if they had purchased an annual entrance sticker. Respondents who had visited a park were also asked to rate their experience and identify media outlets that they regularly use to obtain news about parks. Respondents who did not visit a park were asked questions related to constraints that prevent them from visiting parks. A total of 306 households were contacted for the "off season" sample in June of 1999. Another 406 households were surveyed at the end of the summer of 1999. The total number of households contacted for the telephone survey was 712.

State parks and trails users

The Bureau of Parks and Recreation (BPR) of the Wisconsin Department of Natural Resources (WDNR) estimated that approximately 14 million visits took place at Wisconsin state park properties during 1999. Visitation levels at individual properties varied significantly, with some parks accounting for more than 10% of total visits and others less than 1%.

The sampling strategy for the state parks and trails user surveys were designed to include all state-owned parks and the trails directly managed and maintained by the WDNR. Two distinct sampling strategies were developed: one for parks and another for trails. Both property types were stratified based on visitation, both temporally and spatially. The WDNR visitation estimates from 1998 were used to allocate samples across park properties and throughout the 12 months of the year. By stratifying in this way, the samples generally represented overall park system use throughout the year. Monthly samples were allocated to parks. Dates and times for the samples were generated to occur randomly during daylight hours within the month. A total of 1,400 sample times were allocated during the 12 months from September 1999 through August 2000.

For park properties, vehicle license plate information was collected by park staff at the pre-determined dates and times for each month within the sample frame. For each potential sample, park staff were asked to record vehicle license plate information for the first entrant after a predetermined random time. If no vehicle entered within one hour of the allocated sample time, the sample was marked as "no visitor." This process yielded 1,251 visitors and 149 "no visitor" sample misses.

Visitor vehicle records were then processed to retrieve owner information for the sampled vehicle. With one notable exception, this process yielded the desirable random distribution of park visits. Visits from people using motor vehicles licensed in the State of Illinois during the summer of 2000 were not accessible through the State of Illinois information system, resulting in a potential loss of 113 visitor records.

Comparisons between Illinois and other non-Wisconsin responses yielded no measurable differences; the impact of this data loss is the inability to speak specifically to the issues from an Illinois summer visitor perspective.

This visitor information retrieval process yielded 993 address records, of which 31 were found to be invalid or undeliverable after mailing a pre-survey postcard. Each of the remaining 962 samples were mailed a survey (see Appendix B) with an instructional letter, following the approach outlined by Dillman (1978). Non-respondents were mailed a follow-up letter two weeks after the initial survey mailing, and finally a second survey ten days later if they failed to respond after the reminder letter. This process yielded 575 completed surveys, a 60% response rate. A preliminary examination of the park survey responses indicated minimal response bias. Wisconsin residents received 834 (87%) of the mailed surveys sent to valid addresses; of the 575 responses, 500 came from Wisconsin households (87%). A further bias check compared urban and non-urban response rates; these were 57% and 61% respectively.

Approximately 14 million visits took place at Wisconsin state park properties during 1999.

Given the unique administrative characteristics of state trails, we focused the sampling of trails users to 10 high use trails which were both managed and staffed by WDNR personnel. The trails sample was limited to summer months of the year 2000. For the trails survey, 351 survey times were designated for 10 state trails managed by the Wisconsin DNR.

A similar sampling process was used for trail visitors, but modifications were necessary since only a small (and unknown) portion of trail users commute to the trail in a motor vehicle. To collect visitor data in a random fashion from trails, predetermined sample dates and times were given to trail managers. Managers were then asked to intercept visitors along the trail at the designated date and time. Again, if no visit was encountered the WDNR employee was asked to record "no visit." If the first visitor contacted refused to partake in the survey, the WDNR employee continued sampling until a visit record was recorded or an hour passed. In this manner, 247 names and addresses were collected out of the potential 351 sample allocations; nearly all of the "unfilled" samples were due to no visitor being on the trail at the designated date and time. Fifteen of the 247 pre-survey postcards were returned undeliverable. A total of 232 surveys were mailed, with a follow-up letter and second survey mailed at two week intervals. This process yielded 176 trail surveys, for a response rate of 76%.

Survey responses were entered into a database and analyzed using SPSS statistical software. This software, together with Microsoft Excel, was used to generate the tabular and graphical representations of the analytical results. In this analysis, responses were examined one variable at a time. Since not every survey was thoroughly completed, the number of responses (n) in each variable rarely equals the total number of survey respondents (575 for the park survey, 247 for the trail survey).

Economic impacts of park users within nearby communities were estimated by applying local expenditure patterns to a set of regional input-output models. These economic impact models were constructed using IMPLAN-Pro software with 1997 county-level data. Economic impacts were limited to regional output, employment and income measures.

Interest groups within communities surrounding parks and trails

The third research component focused on the local communities themselves. The information that we sought from local community stakeholder groups was contextual in-nature. Contextual issues such as: 1) the nature of the relationship between communities and nearby park properties; 2) resident perceptions of park visitors and park visitor impacts; 3) the ability of local groups to have input into park management; and 4) the extent of local community benefits from the park and vice versa were of primary interest.

Our approach in developing, conducting, and analyzing this contextual data relied heavily on the focus group approach as outlined in Stewart and Shamdasani (1990), Krueger (1994), Morgan (1988) and Templeton (1987). Focus group interviews were conducted in three case study sites across the state. A focus group interview is a carefully planned, informal, small group discussion. It is designed to collect information by getting participants to talk about their ideas and perceptions of a specific topic or issue. Each of three case studies utilized a series of 3 to 5 separate focus group interviews. These were conducted to collect information specific to the role of locally available state parks and/or trails within the community development situation. The intent of these focus groups was to obtain a broad contextual basis upon which to assess the validity of primary and secondary data and obtain insights into the effects of publicly owned recreational sites on local development from knowledgeable sources.

An analysis of focus group interviews was conducted based on responses to previously identified questions, statements, and probes. Specifically, all focus group interviews were recorded and content analysis was performed on responses to each question posed during the focus group. Where useful, specific quotations were pulled from the focus group session to substantiate focus group points. An agenda and an outline of the content analysis for focus groups are found in Appendix A.

chapter 3

Descriptive results

Table 1. Seasonal participation levels and visitation levels for spring and summer 1999.

	Visited park during period	Wisconsin for period	Wisconsin visit-days	Visit-days per visitor
Spring	19.9%	1,050,000	1,945,000	1.85
Summer	32.0%	1,680,000	5,023,000	2.99

The results of our data collection efforts suggest several areas of discussion. This section is organized into subsections that summarize what we found relative to: a) use of the parks and trails system; b) user perceptions of the state park system; c) assessment of local attitudes toward the parks and trails system; and d) regional economic impacts associated with the Wisconsin State Parks and Trails System. For ease of presentation, we summarize overall results but note differences between parks and trails characteristics only where there were significant differences.[1]

Assessing overall state park usage

The telephone survey results suggested that roughly 27% of Wisconsin residents visited parks. There was a measurable difference between summer and spring seasons, with only 20% of respondents indicating that they visited a park during the "off season" and 32% having visited during the summer.

The results generated by the telephone survey were compared to the visitation estimates generated at park properties through vehicle counts (see table 1). During the spring, with a 20% participation rate, approximately one million residents were estimated to have visited a state park. In the summer, the higher participation rate increases this number to 1.6 million. Given the number of "visit-days" for each season, and subtracting out the portion attributable to out-of-state visitors (found through the license plate survey), it was estimated that one average resident park visitor accounted for two visit-days during the spring and three visit-days during the summer. These appeared to be reasonable estimates based on the reported trip lengths from the survey, but were perhaps low given the reported frequency of visitation. These comparisons suggested that the off-season participation rate and the summer participation rates were reasonable estimates, as are the aggregate visit-day estimates provided by the park.

[1]Within several of the following issues sets, we distinguish between two groups that include: 1) respondents to the parks survey ; and 2) respondents to the trails survey. In general our statistical analysis of the survey results for this descriptive assessment was limited to assessing differences in mean responses (t tests) and categories of data (chi squared tests). These tests were used to assess statistically significant differences between the two groups. We only report statistical significance if the appropriate test suggests differences at the $p < .05$ level.

Distribution of park visits

Geographically, state parks are unevenly distributed across Wisconsin. So too is park visitation. Only eight parks are found in the northeast region, but this area includes Door County where a number of very popular parks are concentrated. The southwest and southeast regions each contain sixteen parks, twice as many as the northeast region, while the northwest is home to eleven parks. Parks in the southern half of the state experience higher levels of visitation due in large part to their proximity to major population centers such as Milwaukee, Madison and Chicago. A map of the State Park System is shown in figure 1.

The Bureau of Parks and Recreation (BPR) estimates property usage through vehicle counters at park entrances. From these counts, the BPR estimates park visitor days, or the number of people at a park multiplied by the number of days they are present. The overall and park-specific visitor day statistics from the twelve-month period January 1998-December 1998 were used as baseline park usage estimates for this study. During this period, park usage varied both from month-to-month and from property-to-property. During winter months, some properties were closed or recorded very low levels of usage.

Across all parks, the greatest visitation occurred during the summer months of June-August; these three months accounted for approximately half of all park usage. The distribution of park visit days across the four regions and four seasons in this study are outlined in tables 2 and 3.

Figure 1. The Wisconsin State Parks and Trails system

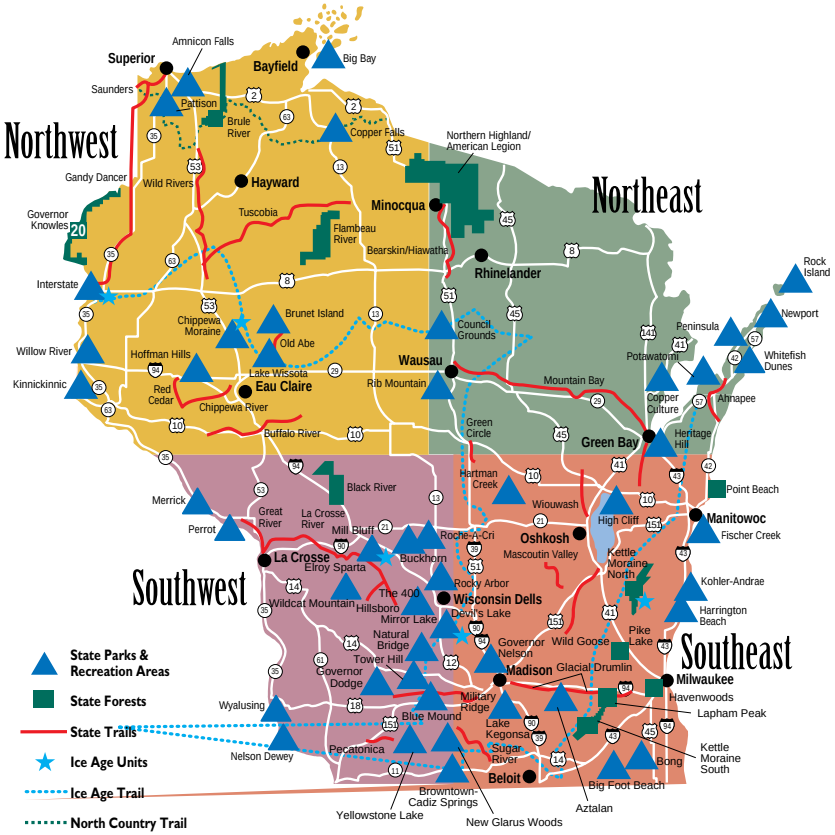


Table 2. Regional distribution of Wisconsin state park visitation.

Region	Visit days	Percent
Northwest	1,727,000	12%
Northeast	2,184,000	16%
Southeast	5,892,000	42%
Southwest	4,099,000	29%
Total	**13,902,000**	**100%**

Table 3. Seasonal distribution of Wisconsin state park visitation.

Season	Visit days	Percent
Winter	1,019,000	7%
Spring	2,572,000	19%
Summer	7,091,000	51%
Fall	3,220,000	23%
Total	**13,902,000**	**100%**

The findings of the mail survey and the records of the DNR generally corresponded to the results of the telephone survey. Telephone survey respondents who indicated that they had visited a park were asked to identify the name of the park that they had visited. Twenty-two percent were unable to provide a valid state park name. Heavily visited parks were among the most frequent responses to this question, including Kettle Moraine State Forest, Devil's Lake, High Cliff and Peninsula State Parks.

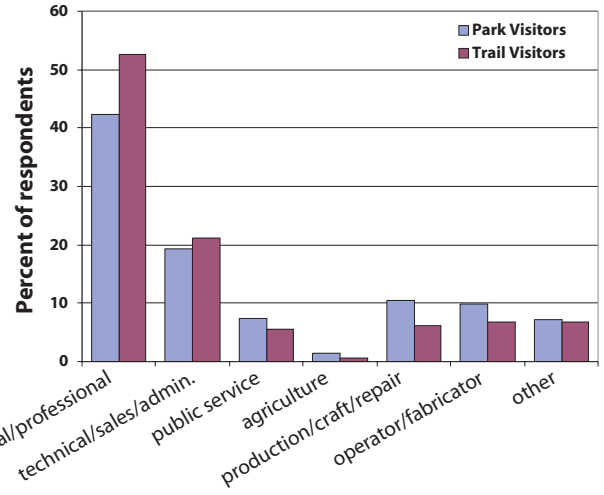
User demographics

An important objective of our efforts was to describe the variation that existed among visitors to the Wisconsin Parks and Trail System with respect to demographic characteristics, recreation habits, and service preferences. The results of the mail survey provided this description of state park and trail visitors. It is important to keep in mind that our mail survey reflected the responses of individuals with specific questions that targeted both the individual and the party with which they were traveling.[2] These respondents appeared to be a relatively homogenous group in several aspects. Their average age was 46 years with 95% of all respondents falling within the ages of 33 and 59. Fifty-six percent of the respondents were male and 44% were female. This slight gender imbalance may originate from the vehicle-registration method of obtaining visitor information. Seventy percent of the respondents were married, while only 14% were "single and never married." A large number of respondents (42%) had children under the age of eighteen living with them at their place of residence. With respect to racial makeup, the vast majority of respondents (95%) were white, with Asian or Pacific Islanders making up the largest non-white portion of respondents (.7%).

Parks visitors responding to the survey were, on average, well-educated with fully 97% reporting at least a secondary (high school) education. More than half of the respondents (56%) reported holding a post-secondary degree of some type. The majority of visitors in the sample were employed full time, though a significant portion (15%) were retired. Just under 90% of trails survey respondents had high school diplomas with almost 70% having post-secondary degrees. The average age of trails survey respondents was 45 with 75% reported married.

Of those who were employed in one form or another, there were interesting and significant differences between respondents to the parks survey and trails survey with respect to occupational structure. While roughly 62% of respondents to the parks survey classified themselves as employed in occupations categorized as "managerial/professional" or "technical/sales/administration," fully 73% of trails users categorized their occupations as such. This occupational structure of parks and trails survey respondents is summarized in figure 2.

Figure 2. Occupational structure of respondents to the parks and trails survey (categorical differences significant at the .05 level)

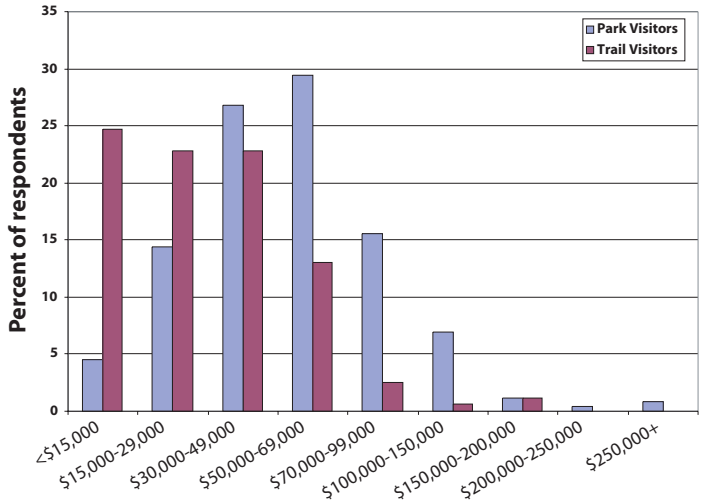


[2]These respondents most likely included the owners (or registrants) of the car that was selected through the sampling process. It could be assumed that the registrant of the car could have been serving as the "de-facto" head of the recreational party. To be sure, though, we must remain cautious and understand that responses were provided by individuals who responded based on their own experience and their best assessment of the experience of the party with which they were traveling.

Occupational structure is one of several primary determinants of household income level. Again, given the differences in occupational structure between parks and trails respondents, there were significant differences in income between these two groups. The distribution of household income for parks and trails survey respondents is summarized in figure 3.

In addition to annual household income, respondents were also asked to estimate the total value of their household investments. For the parks survey respondents, 26% estimated their value to be between $150,000 and $250,000, while 35% estimated their value to be greater than $250,000. Fully 15% estimated the value to be greater than $450,000. The respondents to the trails survey were similar (differences not statistically significant) with respect to wealth distribution.

Figure 3. Distribution of annual household income for respondents to the Wisconsin State Parks and Trails survey (categorical differences significant at the .05 level).



Recreation planning

- **People feel that state parks and trails are meant to preserve and protect ecologically or historically significant places across the state. The general public feels that state parks succeed in accomplishing this objective.**
- **Primary reasons for visiting state parks include escape and solitude and quiet recreation. On the other hand, some parks and trails tend to have crowding issues that limit their success.**
- **Silent sports represent increased state parks and trails usage, indicating that parks fill an important niche in recreational opportunities across the state.**
- **Safety is both important to visitors and well-provided across the state parks and trails system. In large part, this is due to the presence of well-trained and vigilant park staff.**

- **State park planning must include local, regional and statewide voices in the development and operation of the State Parks and Trails system.**

Recreational characteristics of park users

Participation in parks and trails recreational activities. Our interests focused on how people used parks and trails and their perception of how well the park or trail visit suited their expectations. To assess this, the surveys included questions about visitor recreation habits both on the most recent park or trail trip and in the month previous to responding to the survey. In addition to their own use, respondents were also queried for the activities of other members of their group. Overall participation rates for the activities included in the survey are shown in figure 4. Our results suggest that the single most popular at-the-park activity was hiking, followed by wildlife viewing, pleasure driving and picnicking. As can be seen from figure 4, visitors to Wisconsin state parks participate in a wide array of activities.

Length of stay. Respondents indicated the arrival and departure dates of their most recent visit or indicated that their trip was for the day only. The average park visit was estimated to be 3.4 days long. Seventy-five percent of respondents indicated a trip length of less than four days, while 90% of all trips were under six days in length. About half of the respondents indicated that their visit to the park was only a one-day trip. This is a significant result, as the length of a visit (day-trip versus overnight) was thought to correspond with a number of other visitor and visit characteristics (trip spending, group size, visitor origin, expectations, etc.). Trip length varied by season, with the longest visits occurring in summer months. Winter months were almost always day trips, while spring camping trips resulted in spring trip lengths that were similar to summer. Trip length by season is summarized in table 4.

Overnight accommodations. Among the survey respondents, there was variation in the form of lodging used by overnight visitors. It is safe to say, however, that overnight visitors to state parks were largely comprised of people who enjoyed camping. Slightly more than half of the respondents (54%) indicated that their most recent visit was an

Table 4. Mean trip length by season.

Season	Mean trip length/days
Spring	5.0
Summer	3.7
Fall	2.9
Winter	1.3
Overall	3.4

Figure 4. Participation in park activities among all respondents.

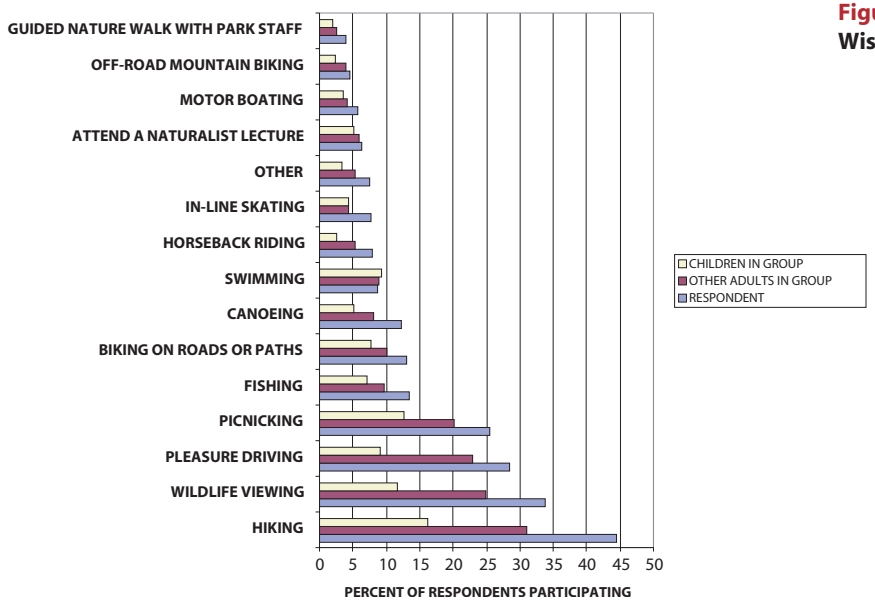
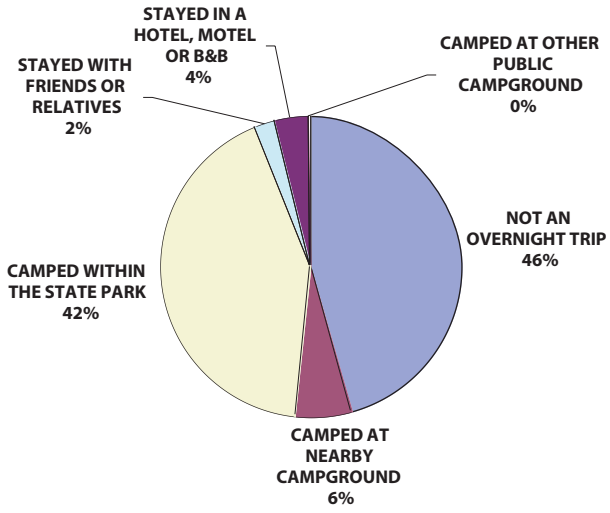


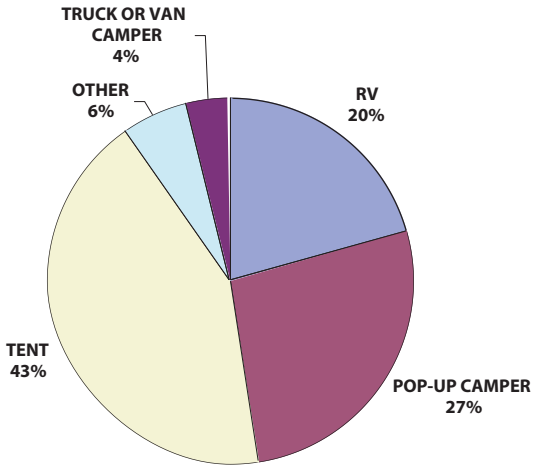
Figure 5. A breakdown of visitors into day-trippers and overnight guests to Wisconsin state parks, including type of lodging used by overnight visitors.



overnight trip. Of these visitors, the vast majority (85%) reported camping at the state park itself. The next most popular form of lodging was camping at a nearby campground. A summary of day vs. overnight-visits that includes a breakdown of lodging used by overnight guests is included in figure 5.

Of those who camped both within the park and in nearby campgrounds, several different types of camping were used by park guests. In large part, the type of camping was determined by the availability of different types of campsites with more primitive sites appropriately targeting tent campers while those with hookups for electricity and water catering to guests who use recreational vehicles. These alternative camping types are summarized in figure 6. With reference to the figure, it is apparent that tent camping was very popular (42% of respondents) with a sizable number of visitors using pop-up campers (27%) and recreational vehicles (22%). Of the campers who indicated "other," the most common responses were fifth-wheel trailers and camper trailers.

Figure 6. Type of camping used by visitors to Wisconsin state parks who camped.



User perceptions of the state parks and trails system

In an attempt to gain insight into how visitors to the Wisconsin State Parks and Trails System viewed individual recreational sites and the activities related to parks and trails, we collected response data within the mail survey on the attitude of parks and trails users. Most typically, these were posed in the form of statements with respondents marking answers to statements along a spectrum of possible responses. Our intent in gathering this data was to elicit visitor views on park management, land use surrounding parks, and the role of development in the area near parks in meeting visitor needs. Furthermore, a separate section of the survey instrument was designed to gather attitudinal data in a multi-dimensional fashion. Specifically, these multi-dimensional responses were designed to allow for analysis of the data within an importance-performance analysis (IPA) framework.[3] At its core, IPA identifies salient qualitative features and asks respondents to rate product attributes in terms of how important they are to the overall experience and how well they perform their intended outcome (Fletcher, Kaiser, and Groger 1992; Hammitt, Bixler, and Noe 1996). This type of analysis allows us to array, in a relative fashion, the importance of various recreational attributes while simultaneously assessing the relative performance, or effectiveness, with which attributes are provided by the state parks and trails system.

[3]The IPA results were based on standard procedures developed by marketing researchers (c.f. Uysal and Howard 1991). A set of importance/performance criteria were posed and generated information on recreational characteristics as perceived by park and trail survey respondents. Importance measures the level of importance attached to an attribute by a respondent on a Likert-type scale. Performance measures the level of satisfaction of a respondent with the provision of that same attribute on the same scale. Using a simultaneously determined measure of importance and performance is valuable because of the need for an indication of satisfaction that stems from a person's expectations and from his or her judgment of performance (Propst and Lime 1982; Mengak, et al. 1986).

Parks and trails management

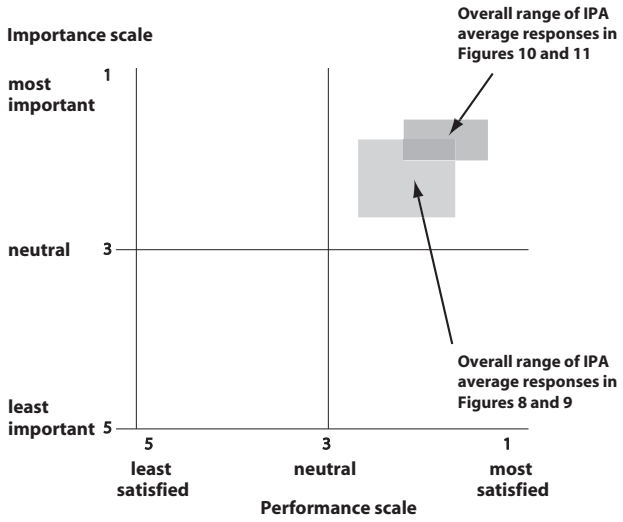
- **Although people appreciate the rustic aspects of Wisconsin state parks and trails, they expect a certain level of amenities (basic services) not typically expected from other public lands. These include garbage collection, telephones, restrooms and showers, drinking water and concessions (canoe/kayak rentals, food, etc.).**
- **Maintenance of the system matters! Results of the survey suggest that many visitors anticipated a level of maintenance that was not provided in the current system. This implies that maintenance of parks lags behind the level of service expected by visitors.**
- **The demand for amenities appears to suggest that park visitors are willing to pay more for special services like electrical and sewage hookups for recreational vehicles.**
- **Development around state parks (particularly residential and commercial) are a concern to visitors. Visitors expect services to be found in local communities and not directly adjacent to park properties. The exception to this is in reference to campgrounds.**
- **Open space needs to be protected around state parks and trails.**

Management of parks and trails

It is often the case that recreation managers lack information on how user groups perceive management activities that affect the extent, availability and type of recreational activity produced. Furthermore, baseline data on user perceptions of recreational attributes and characteristics are often lacking. Importance-performance analysis (IPA) is a marketing technique that provides managers with this type of information. This section summarizes the IPA data and analysis for our study of visitors to the Wisconsin State Parks and Trails System.[4]

Aggregate mean scores for each of 14 attributes were plotted into one of four quadrants, with conclusions derived by noting where attribute scores were found on the two-dimensional IPA grid. This procedure was repeated for both park users and trails users. A two-dimensional IPA grid was created for both of these user groups. The parks survey included two sets of importance-performance questions designed to simultaneously assess the reasons that people go to or support parks and their satisfaction with their park experience. By comparing the rankings provided by respondents, park managers can prioritize their activities to emphasize areas where visitor satisfaction may be low and expectations high.

Figure 7. Locator map for the overall IPA averages reported in figures 8, 9, 10 and 11.



Prior to presenting the disaggregated IPA results, it is important to make a statement about the overall ranges of IPA responses for each of these user groups. The final numerical scales of responses for both importance and performance began at 1 (very important/very satisfied) and progressed to 5 (not important/not satisfied) with 3 indicating a neutral/unsure response. As a guide to locating the overall range of IPA responses, figure 7 provides a general locator map that is placed within the scale range of original responses.

As shown in the locator map, the means reported in figures 8 and 9 fall within the "more" important and "more" satisfied range. These two dimensional IPA grids are created based on the grand mean for importance and performance responses. The grand importance mean was obtained by dividing the total number of importance responses into the sum of the importance responses. The grand satisfaction mean was obtained by dividing the total number of satisfaction responses into the sum of the satisfaction responses.

[4]There is a growing literature on the use of IPA for recreation planning. Ritchie (1987) indicates that IPA is an evaluative tool to complement policy decisions at the decision level for recreation and tourism planning. Evans and Chon (1989) used IPA to interpret two different recreational destinations to solve problems and resolve tourism issues. Specific to forest-based recreation, Hollenhorst and Olson (1992) and Hollenhorst, Olson and Fortney (1992) employed an importance performance analysis of the recreation features of an Eastern National Forest.

User motivations for visiting state parks and trails. The first set of IPA questions focused on the reasons people visit parks. Five different reasons for going to a state park were included in the survey. For each statement the respondents indicated on two separate Likert-type scales: 1) the level of importance that they assigned to the given reason for visiting a park (ranging from "very important" to "not important"); and 2) the level of satisfaction that they received from the park on their most recent visit (ranging from "very satisfied" to "not satisfied"). The five statements provided as reasons for visiting a state park included:1) to find a place for quiet recreational activities; 2) to learn about nature, history and culture; 3) to enjoy a wide range of outdoor recreational activities; 4) to be with my friends and family in a scenic, outdoor setting; and 5) to escape from crowds and enjoy solitude.

Although there was high overall importance and satisfaction scores for each statement, the relative differences between the statements were assessed to determine which was most important and which had the highest satisfaction ratings. To accomplish this, the responses to each of the five statements were simultaneously compared both to each other and with the overall mean level of importance and satisfaction. The specific IPA grid for park survey respondents and trail survey respondents are included as figures 8 and 9 with respect to their reasons for visiting the recreational site.

There are four quadrants in each IPA grid. These quadrants relate each characteristic to the mean importance and performance axis. The region where both importance and performance are higher than the mean is termed **management successes**. In this quadrant, respondents have ranked reasons as most important. Based on figures 8 and 9, the reasons that fall in this quadrant include *to find a place for quiet recreational activities* and *to be with my friends and family in a scenic, outdoor setting*.

If a reason was found to be higher than average in importance but lower than average performance, it would fall in the region marked **management priorities**. Our IPA analysis suggests that the reason *to escape from crowds and enjoy solitude* falls in the **management priorities** quadrant, but it is only slightly below the mean performance score.

The quadrant where both importance and performance scores are lower than the overall average can be considered issues with **lesser management priorities** in recognition that they fall below the overall performance rating, but may not merit the same attention as those reasons ranked higher in importance. Two of the five reasons fell into this final category. These included *to enjoy a wide range of outdoor recreational activities* and *to learn about nature, history and culture*. This isn't to suggest that these

Figure 8. The IPA grid for respondents to the park survey on reasons for visiting state parks.

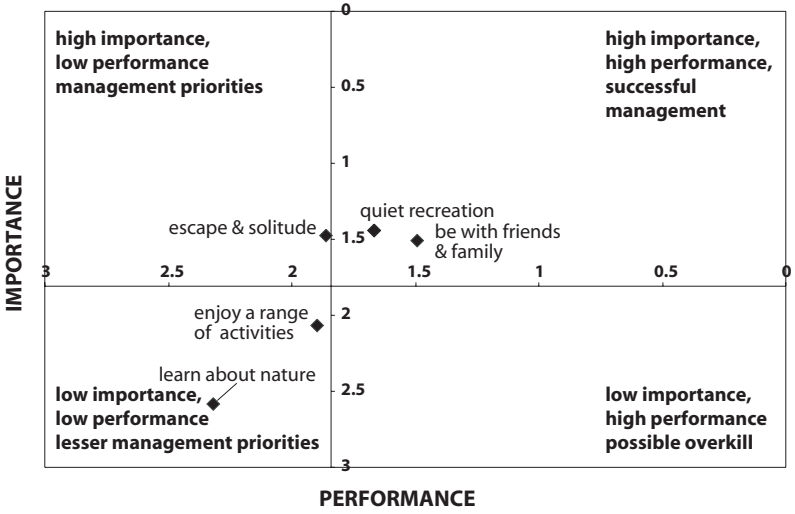


Figure 9. The IPA grid for respondents to the trails survey on reasons for visiting the state trail.

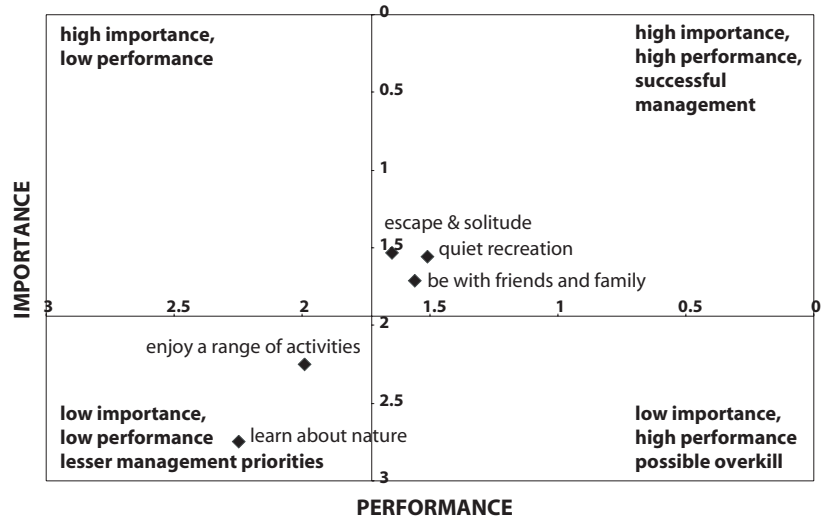


Figure 10. The IPA grid for respondents to the parks survey on reasons for the existence of state parks.

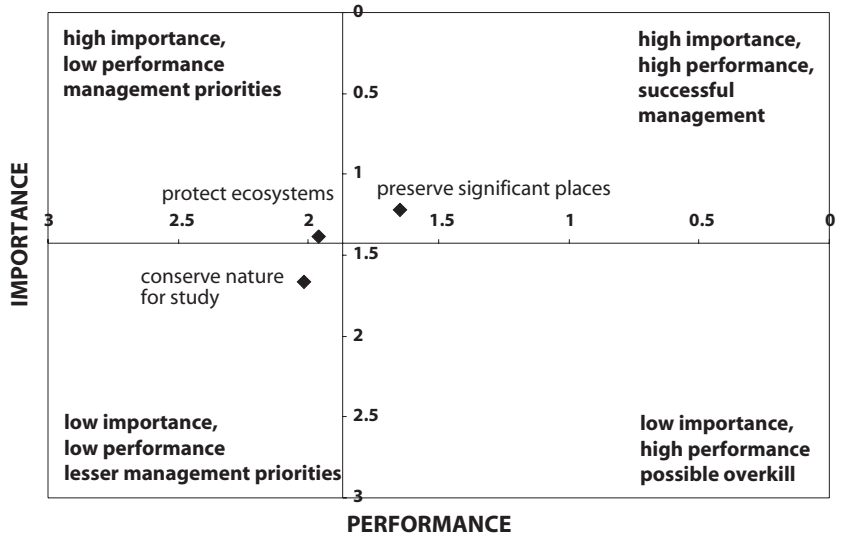
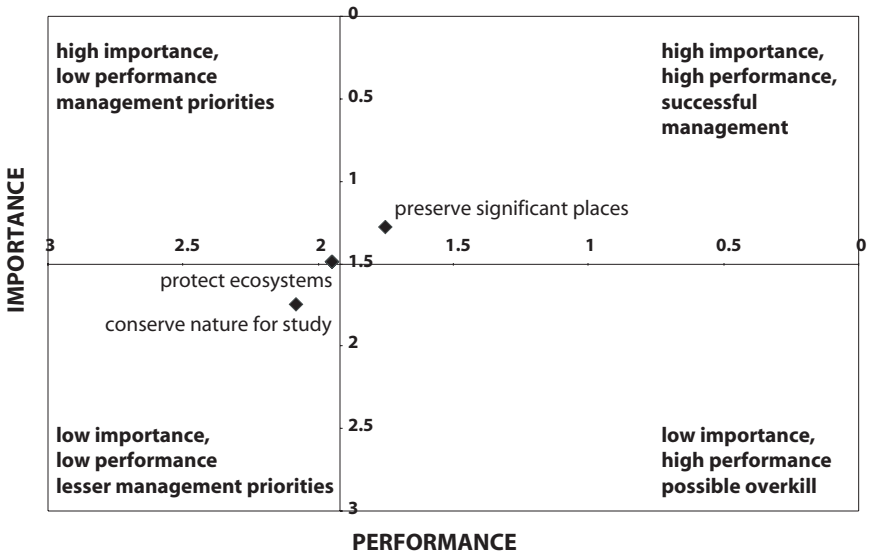


Figure 11. The IPA grid for respondents to the trails survey on reasons for the existence of state trails.



last two reasons are not important to park visitors; as mentioned earlier, all the reasons ranked high in importance. It does suggest a prioritization of efforts that favors improving satisfaction on other issues such as meeting the needs of visitors seeking solitude.

Broader purposes for the state parks and trails system. Parks and trails are important for reasons that do not necessarily imply actually visiting a specific recreational site. To capture the other reasons that people think parks are important, three reasons that do not involve park visitation were provided. These included: 1) to preserve Wisconsin's most significant places for future generations; 2) to conserve natural areas for research and scientific study; and 3) to protect natural ecosystems.

A similar IPA analysis was conducted for these three statements using the respondents' measures of importance and satisfaction. Again, note from figure 7 that the range of these relative to the overall range of possible responses was even more skewed to the most important and most satisfied area of the spectrum. In looking further into the relative IPA responses with their respective grand means (figure 10 for parks survey respondents and figure 11 for trails survey respondents), we note that differences emerged among the characteristics. *To protect natural ecosystems* fell in the **management priority** quadrant, while *to conserve natural areas for research and scientific study* is in the **lesser management priorities** quadrant while *to preserve Wisconsin's most significant places for future generations* fell within the **management successes** quadrant.

Again, it is important to note that we've separated the direct reasons for visiting state parks and trails from the other reasons why state parks and trails should exist. Were we to combine these measures, the relative comparisons would change with the latter reasons being relatively more important.

Visitor perceptions of personal safety. Another key element of parks and trails visitor satisfaction that is of interest to recreation planners is the level of personal safety perceived at the recreational site. The survey included a list of seven statements related to safety and security in Wisconsin state parks. Respondents were asked to identify their level of agreement with each of the statements by checking a box on a Likert-type scale indicating strong agreement to strong disagreement. The responses to each statement are analyzed below, followed by some conclusions drawn from comparing the findings for each statement and among alternatives.

Theft of personal belongings is often a concern of many who travel. We gathered data on this aspect of personal safety with a standardized statement (see caption for exact wording). Both day-trippers and campers at parks typically spend a great deal of time away from their vehicles and personal belongings. Our statement sought to measure the perceived risk level experienced by visitors when they leave their possessions unattended. Responses were rather neutral, with most responses falling midway between "strongly agree" and "strongly disagree." As seen in the distribution illustrated in figure 12, there was a greater tendency for respondents to disagree than agree. These findings suggest that theft is a relatively minor concern among parks and trails visitors.

Another aspect of personal safety in the outdoors focuses on the presence of wild animals and again, we incorporated a statement to assess the extent to which this was an issue to survey respondents. Responses to the statement are summarized in figure 13. As noted from the figure, the majority of respondents indicated that this was a rather benign issue across Wisconsin. Bears are relatively uncommon in developed areas of parks and trails, but perhaps represent a more intimidating aspect of the natural experience. Racoons are a more common animal to encounter and they can cause management problems when they become too numerous and bold. Among respondents, the threat posed by such wildlife appeared to pose a rather minor risk.

The majority of state park users do not feel safe when hunting takes place within a park.

Figure 12. Responses to the statement *"When visiting a Wisconsin state park, I am worried that my belongings may be stolen."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

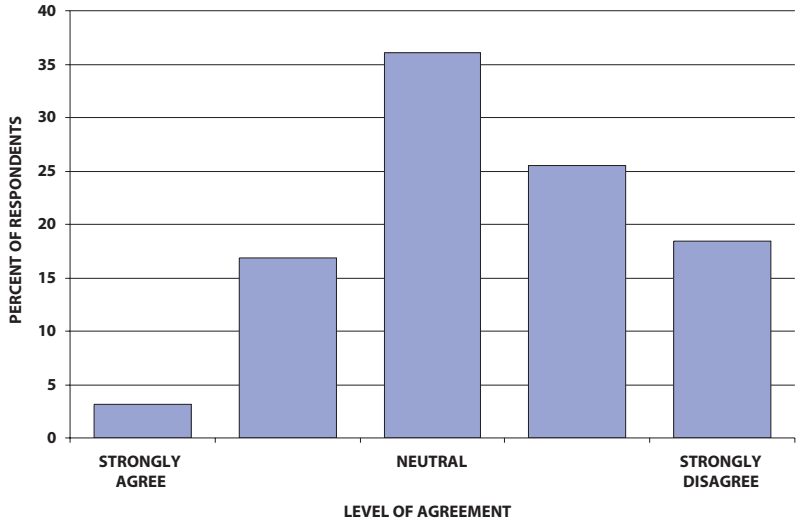


Figure 13. Responses to the statement *"Wildlife such as bears and racoons are my biggest safety concern at Wisconsin state parks."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

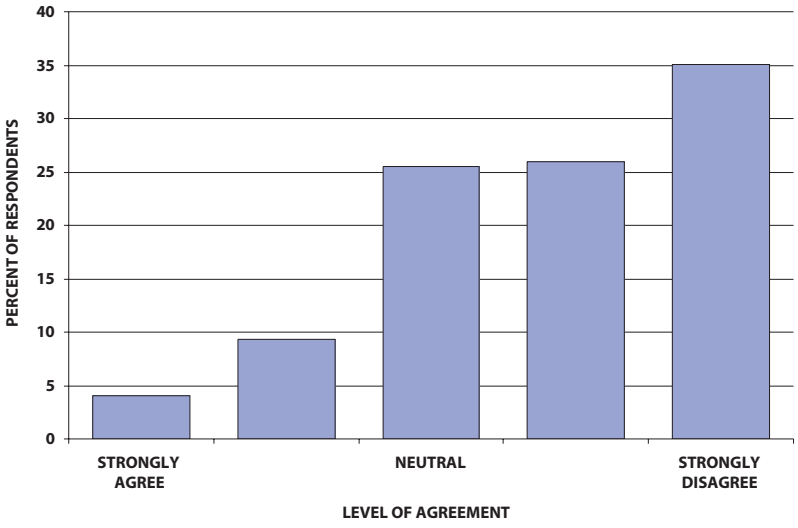


Figure 14. Responses to the statement *"Seeing a ranger patrolling the park makes me feel that Wisconsin state parks are safe."* **Difference between parks and trails survey respondents statistically significant at the p < .05 level.**

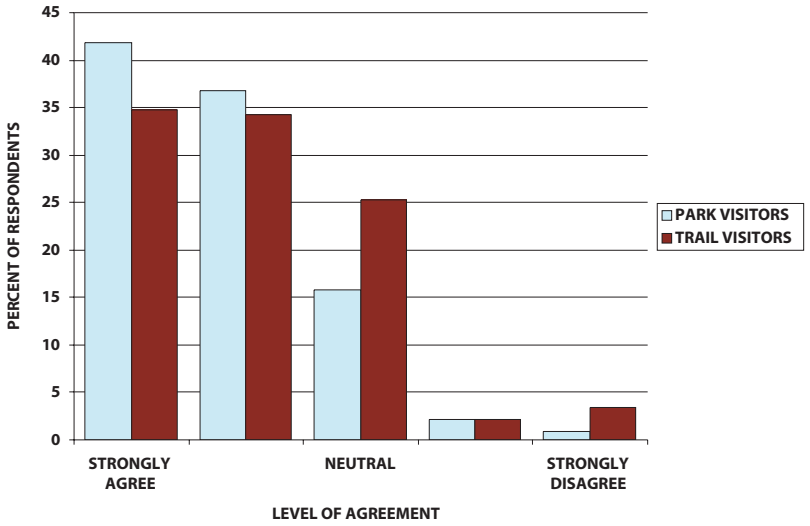
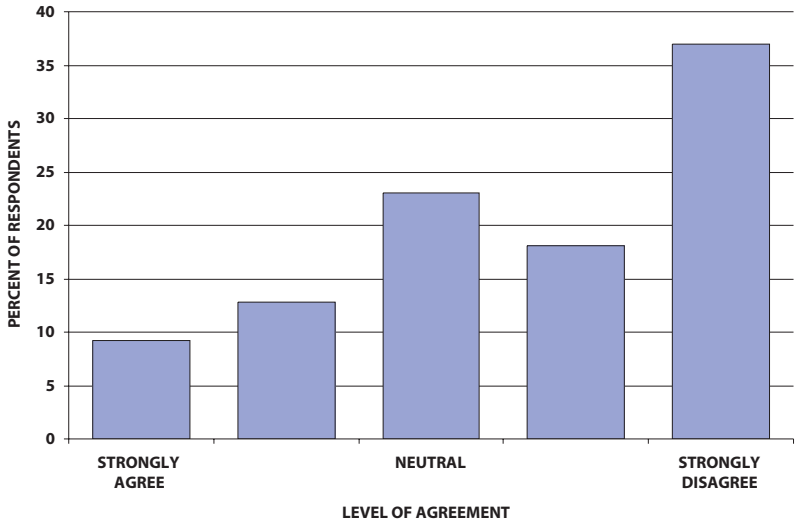


Figure 15. Responses to the statement *"I feel safe visiting a Wisconsin state park when there is hunting taking place at the park."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



The presence of professional attendants can alleviate several safety concerns when traveling. In the Wisconsin State Parks and Trails System, park rangers serve a number of roles with an overriding concern for the well-being of visitors. Rangers represent law and order as well as knowledge of safety procedures. To assess the perception of personnel patrolling state parks and trails in Wisconsin, we incorporated a standardized statement (see caption for exact wording). Responses to the statement are summarized in figure 14. As expected, there was strong agreement with perception of safety given ranger presence. Note from the figure that over 40% of respondents strongly agreed with the statement, while another 37% fell between strongly agree and neutral.

A variety of hunting takes place at state parks, though the activity is generally limited to a handful of parks and occurs at different times throughout the year. As a recreational activity, hunting is a fairly popular pastime, particularly among non-urban populations. At the same time, the equipment used by hunters is often perceived as dangerous and deadly. To assess the perception of hunting as a safety concern, we posed a statement that addressed the issue (see caption for exact wording of statement). Responses are summarized in figure 15. There was an interesting distribution of responses to this statement, with about one-third of the respondents indicating that they strongly disagreed and another one-fifth expressing neutrality. Only one-fifth of the respondents indicated any level of agreement with the statement. These findings suggest that hunting activities in parks be given careful consideration; additional research may be required to determine where and when hunting is appropriate in parks.

Among people who take time to fill out comment cards at parks, there are typically a significant number who relate their negative experience with other park visitors. There is, however, no readily available way to determine if these experiences are common. To assess the level of frustration people have with others, we posed a statement focused on the level of disturbance caused by other recreationists (see caption for exact wording of statement). Responses by parks and trails visitors to this statement, shown in figure 16, reveal general neutrality with the problem. Only 8% of respondents strongly agreed with the statement and only 14% strongly disagreed.

One way to alleviate disturbances among visitors is to expend more effort policing activities through regular patrols by park rangers. To assess visitor perceptions of this ability, we incorporated a statement that indicated increased patrolling of parks and trails (see caption for exact wording.) Responses to this statement are summarized in figure 17. From the figure, note that there was a rather ambivalent

Figure 16. Responses to the statement "*I am often disturbed by the behaviors of others when I am at a Wisconsin state park.*" **Difference between parks and trails survey respondents statistically significant at the p < .05 level.**

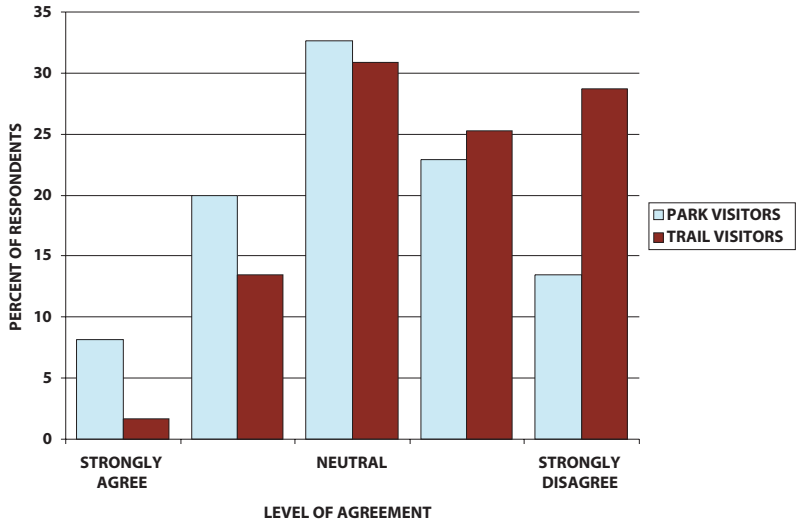
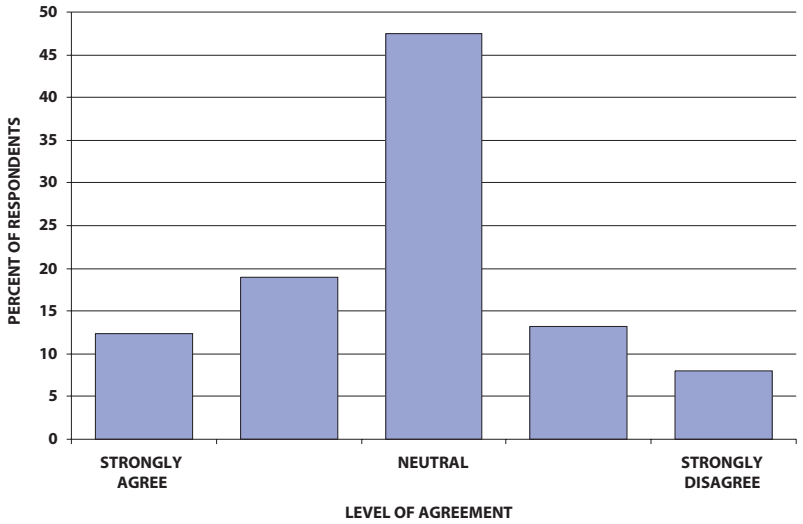


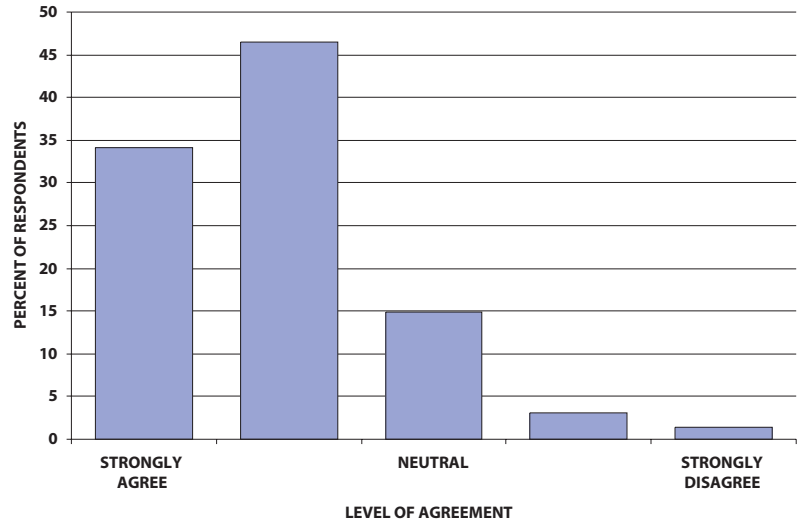
Figure 17. Responses to the statement "*Park rangers should spend more time enforcing the rules and controlling visitors that disturb others.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



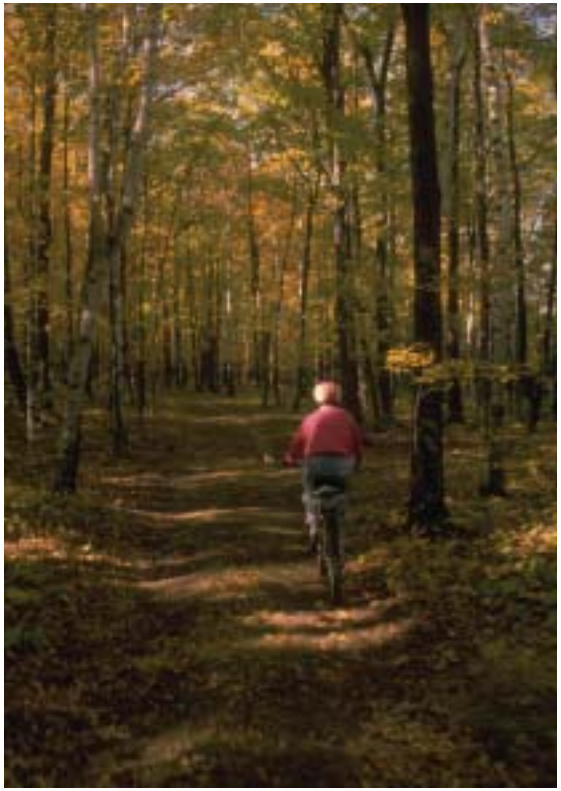
response to this statement and that almost half of the respondents indicated that they felt neutral with respect to focusing ranger efforts on disturbing visitors. However, there was a stronger tendency for respondents to agree than disagree, with 13% indicating strong agreement and only 6% expressing strong disagreement. In combination, responses to this and the previous statement suggest that there is a level of concern among visitors with respect to their fellow park and trail visitors.

Overall, we had interests in assessing the overall level of security experienced by parks and trails visitors and assessed this with a general statement about security (see caption for exact wording). As can be seen in the response to this statement (in figure 18), there was general agreement that visitors to the Wisconsin State Parks and Trails System feel fairly secure when they visit parks and trails. Note from the figure that about one-third of the respondents strongly agreed with the statement, while less than 5% of respondents indicated any level of disagreement. This finding suggests that while the other security items discussed here may present some issues for park managers, the overall sentiment among park goers is that their visit was a safe one.

Figure 18. Responses to the statement "*I always feel safe while I am visiting a Wisconsin state park.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



Comparing results of various safety statements, some generalizations can be made. First, as mentioned above, park visitors generally felt safe when they went to the parks or trails. The presence of park rangers contributed to the perception of safety and security. Wildlife was generally not an issue with respect to most visitors' perception of safety, while the hunting of wildlife at parks reflected the opposite. While parks and trails visitors did not indicate that they were frequently disturbed by the behavior of fellow park visitors or worried about theft, there was a slightly stronger agreement that park rangers should spend more time enforcing park rules and controlling visitors that disturb others.



Visitor preferences for amenities. Parks and trails contain a multitude of amenities that, in combination, contribute to the overall experience of the visit. Examples include both standard recreational site amenities such as campsites or restroom facilities and other, less standard, amenities that contribute to the convenience of travel. Examples in this latter category include travel-based conveniences such as cash machines, snack shops, and recreational equipment rental. Increasingly, this latter category of amenities has come under some scrutiny because of its quasi-public nature. Indeed, many of the amenities in this latter category are contracted for from private firms, thus blurring the line between public and private goods available to visitors of the Wisconsin State Parks and Trails system.

Our work captured a slice of this demand for non-standard amenities through a series of survey statements related to conveniences that visitors may enjoy and desire when visiting a park. A list of 13 conveniences were presented to survey respondents including gas stations, taverns, restaurants, bicycle rentals, canoe/kayak rentals, cash (automatic teller) machines, RV sewage disposal services, grocery stores, post offices, year-round indoor lodging, garbage disposal and recycling, snack shops, and public telephones. Respondents were asked to rate each convenience item along a Likert-type scale from very important to not important. Furthermore, for each item, respondents were also asked to indicate their attitude about appropriateness of the item within a state park or trail system.

In a fashion similar to the IPA analysis described previously,[5] the 13 items can be viewed on a two-dimensional grid that allows relative importance ratings to be readily compared. Again, before showing the specific results of this analysis, it is important to place this within the overall range of responses. Recall from the previous IPA assessment, the overall ranges of importance start at 1 (very important) and proceed to 5 (not important). A departure from the standard IPA technique was used for the appropriateness measure. Given the more narrow context of appropriateness, our survey used a dichotomous "yes" or "no" measure, thus the range of responses was reduced to two. For ease of presentation, we have assigned a numerical value of 1 to "yes" responses and 2 to "no" responses. As shown in figure 19, the ranges of mean responses to each item were much more broadly distributed than the previously outlined IPA analysis.

Responses to this set of amenity types is included for parks survey respondents in figure 20. In interpreting these results, please note that a value close to "1" indicates near unanimity that the amenity is appropriately found within the park, while a score near "2" indicates the opposite.

[5]Relating "appropriateness" to "performance" does appear to be a reasonable adaptation to IPA with similar interpretive characteristics. We understand that this adaptation departs from standard IPA analysis and should be considered an extension of the underlying approach, aptly termed importance-appropriateness analysis (IAA).

From this figure, note that six of the seven most important amenities also had dichotomous variable means tending toward "yes" (appropriate) for locating within the park. These included RV sewage disposal, garbage disposal and recycling, public telephones, snack shops, canoe/kayak rentals, and bicycle rentals. Of these, the first three amenities can, and often already are found at parks (though campgrounds are subject to a "carry-in/carry-out" policy with respect to garbage). The last three are non-traditional amenities that are frequently provided by privately operated concessionaires within the parks. To the extent that any of these six amenities are lacking at a park, recreation planners may wish to consider options for their provision to park or trail visitors.

Only one amenity was rated as more important than average and had a dichotomous variable mean tending toward "no" (inappropriate) for locating within the park. This was the amenity labeled grocery stores. This indicates a strong desire on the part of visitors to have grocery stores available, but some reluctance to locate such facilities within park boundaries. To address this, recreation planners could pursue policies that ensure that all visitors are made aware of the location of nearby grocery stores. Gas stations were found to be exactly average in terms of relative importance; like grocery stores, visitors prefer to have their gas stations located outside the park. Providing clear information to visitors regarding the locations of gas stations could also alleviate some of this concern.

The balance of the amenities on the list were rated as less important than the average. In addition, these amenities had dichotomous variable means which tended toward "no" (inappropriate for locating within the park boundaries). These included (in order of importance) restaurants, year-round indoor lodging, cash (automatic teller) machines, post offices, and taverns.

Figure 19. Range of responses to the importance-appropriateness analysis used to assess demands for alternative non-traditionally provided amenities within the state parks and trails system.

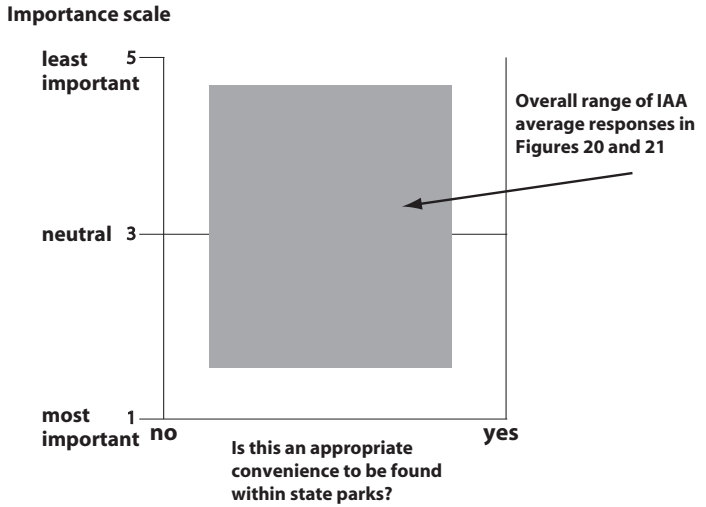


Figure 20. Importance-appropriateness analysis of 13 non-traditionally provided amenities within Wisconsin state parks as indicated by parks survey respondents.

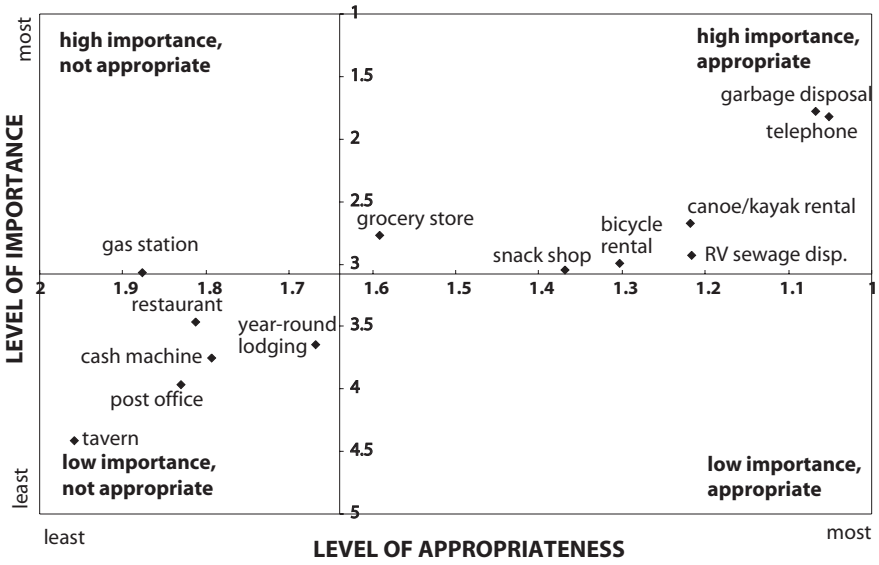


Figure 21. Importance-appropriateness analysis of 13 non-traditionally provided amenities within Wisconsin state trails as indicated by trails survey respondents.

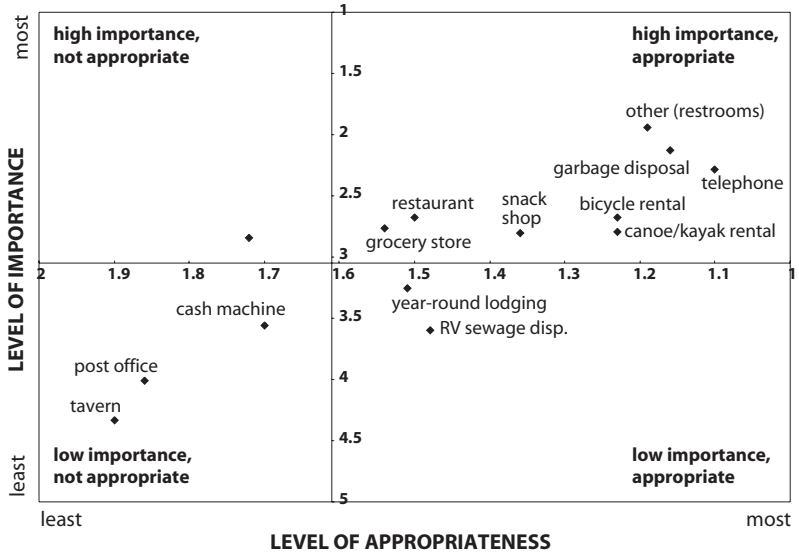
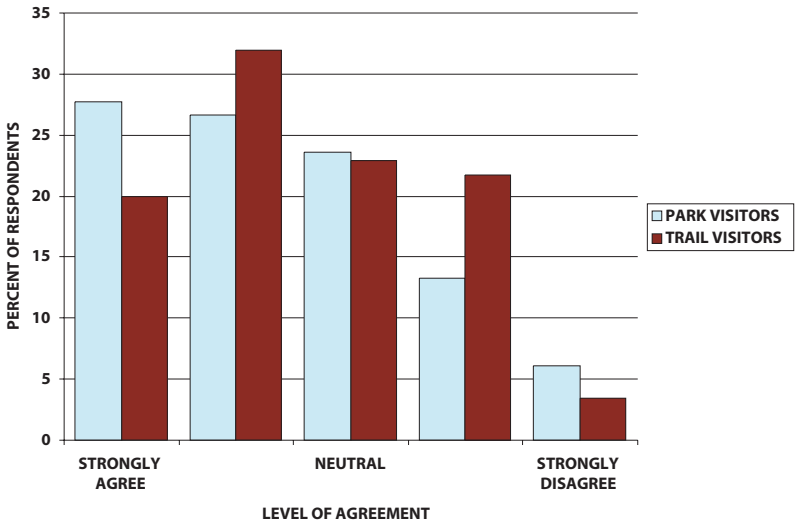


Figure 22. Responses to the statement *"I am satisfied with the current level of* ***services*** *at Wisconsin state parks/trails and see no need for increased funding for services."* **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**



With respect to the response to this set of amenity-related issues by trails users, figure 21 summarizes the data with little noteworthy difference when compared to park survey respondents.[6] This is somewhat surprising given the very different nature of parks and trails. Most trails traverse long linear distances, often within very close proximity to privately available amenities listed in the survey instrument. This could reflect the overall agreement in importance of these amenities but does indicate some confusion over the public versus private nature of these goods and services and their proximity to the state trail. Opportunities exist in development of trails and the situation of retail and service establishments relative to the where the trail is positioned. A policy issue in this respect could include access by private firms to locations directly adjacent to or on state trails.

How state parks and trails are funded. The mail survey included a number of questions designed to elicit visitor perspectives on parks and trails funding issues. The funding of parks and trails services is inextricably linked to the level of services provided, and the questions were designed to reflect this. The directions to this portion of the survey included the following information:

> *"Wisconsin state parks are currently funded in part from fees charged at the park (60%) and in part from general state revenue (40%). If the state were to increase services or maintenance at Wisconsin state parks, it would need to increase state revenue or increase the fees charged at the parks."*

As in other sections of the survey, a discrete Likert-type scale was used to measure the level of agreement with statements about state parks and funding. The following section summarizes the responses to these statements and concludes with a brief summary of these findings.

The first statement read as follows: *"I am satisfied with the current level of* ***services*** *at Wisconsin state parks and see no need for increased funding for* ***services****."* The distribution of responses to this statement can be found in figure 22. There was general agreement with this statement, with a "strongly agree" being the most frequently selected category. About 75% of the responses either agreed with or were neutral with this statement, and only 6% of respondents strongly disagreed. There was a significantly lower level of agreement with this statement among trail visitors, suggesting that the perceived level of services available at trails lags behind

[6]The only noticeable difference between parks and trails survey responses was that a relatively larger number of trails respondents indicated the category "other" as a management priority with the overwhelming majority of these indicating the need for restroom facilities at the trails.

those at parks. The earlier findings regarding trail visitors' preferences for restrooms at the trails may be one part of their perception of lower services.

The second statement read as follows: *"I am satisfied with the current level of **maintenance** at Wisconsin state parks and see no need for increased funding for **maintenance.**"* Responses to this statement are summarized in figure 23. This statement and the one before it differentiate two of the major functions carried out by WDNR personnel. This statement had responses that suggested a slightly higher level of disagreement than the services question. Fewer respondents indicating that they "strongly agreed" (23% compared to 28%) while more respondents indicated disagreement (26% compared to 19%). A chi-square analysis of these two distributions found the difference to be insignificant at the .05 level. This indicates that the perception of maintenance at the parks lags behind the perceptions of services. With more than 25% of visitors in disagreement with the statement above, the parks may be advised to explore ways to increase the level of maintenance provided at their facilities.

Figure 23. Response to the statement *"I am satisfied with the current level of **maintenance** at Wisconsin state parks/trails and see no need for increased funding for **maintenance.**"* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

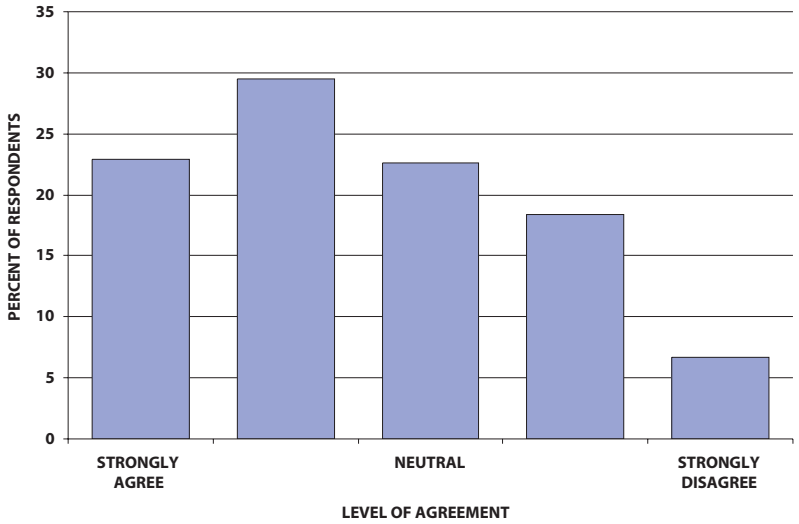


Figure 24. Responses to the statement "*Increases in the parks/trails budget should come from the state's general revenue tax money.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

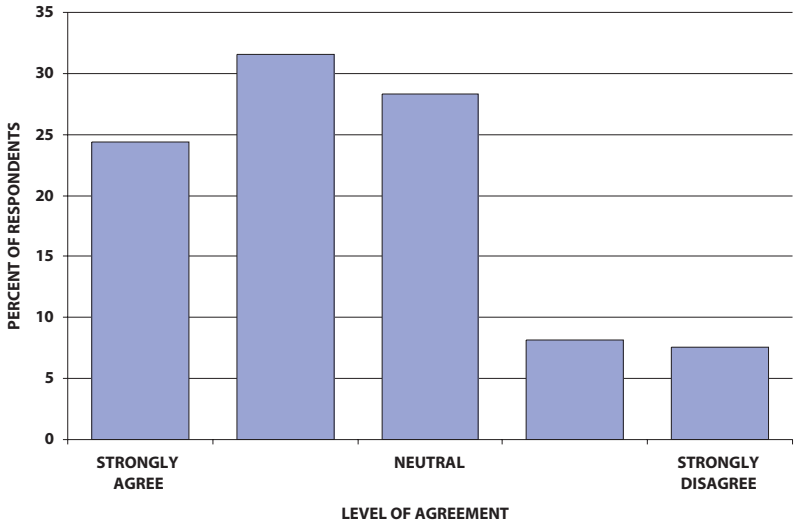


Figure 25. Responses to the statement *"Increases in the parks/trails budget should come from higher campsite fees."* **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**

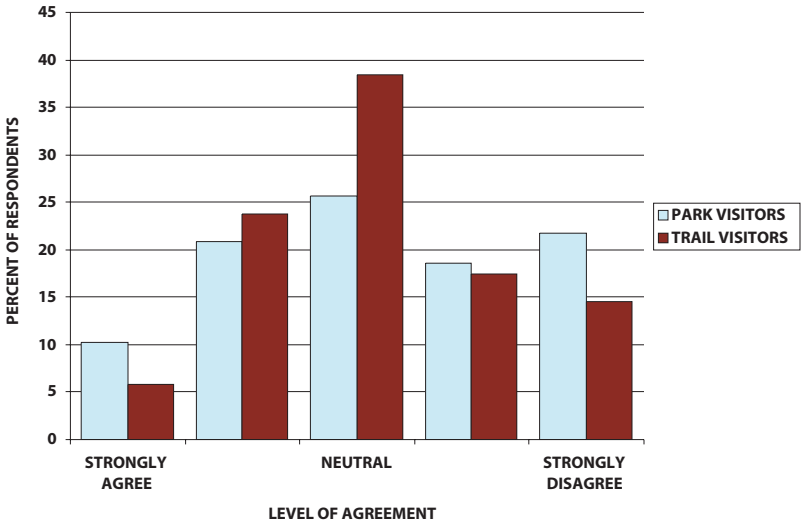
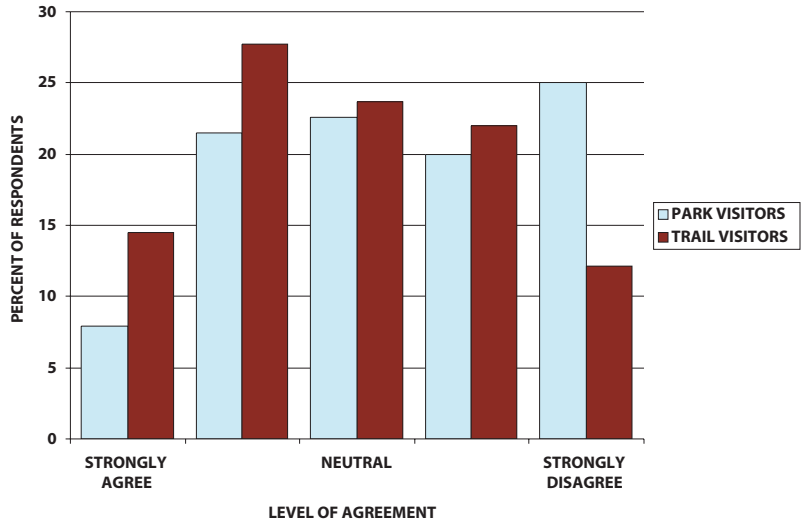


Figure 26. Responses to the statement *"Increases in the parks/trails budget should come from higher entrance fees for both* ***in-state*** *and* ***out-of-state*** *visitors."* **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**



The next statement read as follows: *"Increases in the parks budget should come from the state's general revenue tax money."* This statement is one of a series seeking to identify the visitors' opinions on the funding options available to increase park budgets. The distribution of responses to this funding statement can be found in figure 24. There was a relatively high level of agreement with this statement, with only 15% of the respondents indicating a less-than-neutral disposition toward using general revenue money to fund parks and trails budget increases. Such findings are consistent with other government finance research indicating that service users prefer that their services be funded by the broadest available means.

The next statement read as follows: *"Increases in the parks budget should come from higher campsite fees."* This statement identified a more specific user-fee mechanism for generating additional parks revenue. The overall responses to this statement are summarized in figure 25. Note from the figure that there appeared to be less support for this funding mechanism. Again, such findings are consistent with the notion that people prefer to fund these types of services from broader revenue sources. A further test of this theory can be conducted by comparing responses from those who had camped in their recent park visit to those who did not. When overnight park visitor responses were compared to day trippers, the difference between the two is significant at the .05 level with campers being less supportive of charging themselves more. While only 16% of daytrippers strongly disagreed with this statement, almost 30% of campers did so. These findings are further supported by comparing trail visitors with park visitors; among trail visitors there was a significantly higher level of neutrality towards this statement and less disagreement.

Shifting the incidence of revenue generation to outsiders is often a popular mechanism for residents. There currently is a difference in the entrance and user fees charged to out-of-state visitors, one justification being that Wisconsin residents already finance a portion of park operations through their income tax and the state's general revenue fund. This statement and the one following seek to identify the opinions of the visitors themselves to this differential fee structure.

First, a statement was included that read as follows: *"Increases in the parks budget should come from higher entrance fees for both* ***in-state*** *and* ***out-of-state*** *visitors."* Responses to the first statement are found in figure 26. Among park visitors, more respondents disagreed with this statement than agreed; those agreeing only accounted for less than one-third of the responses with 23% indicating neutrality. The current fee structure for trails does not differentiate between in-state and out-

of-state users. Among trail visitors there was significantly more agreement with this statement; one might suspect that perhaps there were more out-of-state respondents among the trail visitors, but a comparison of park and trail respondents indicates that there were fewer out-of-state respondents among the trail visitors.

The second statement read as follows: "*Increases in the parks budget should come from higher entrance fees for **out-of-state** visitors only*." As in the statement above, this statement sought user opinion on raising entrance fees, though here the focus was on raising the fees paid by out-of-state visitors. There was generally more agreement with increasing fees for out-of-state visitors than for both in- and out-of-state visitors. Results are summarized in figure 27. Note from the figure how the portion of respondents strongly agreeing equals 22% of the total. The interesting aspect of these responses is the polarity of the responses, with almost 20% of the respondents strongly disagreeing. As one would expect, the vast majority of those disagreeing were out-of-state park visitors; among this group, only 3% indicated any agreement above neutral, and only 12% indicated neutrality towards higher fees for out-of-state visitors. This is not reflected in the trail responses where, as in the statement above, there was less agreement with increasing only the out-of-state fees despite the larger portion of in- state respondents. This could very well reflect satisfaction with the status quo with respect to trail fees.

In the past, the DNR BPR has utilized different forms of "congestion" type pricing to encourage a more even distribution of park use. The current admission structure does not include congestion pricing so that the admission fee to all parks is roughly equal. To assess this differential pricing mechanism, the following statement was included: "*Entrance fees should be higher for popular parks such as Devil's Lake, Peninsula and Interstate Park*." Responses to this statement (summarized in figure 28) suggested that it would be wise to revist the idea of congestion pricing. A large portion of the respondents strongly disagreed with this statement (29%), but there were some who agreed, with about 26% indicating an agreement level stronger than neutral. Trail visitors were asked a similar question but the statement utilized trail names rather than park names. Among trail respondents, there was significantly less agreement with the statement, though a similar portion of respondents strongly disagreed.

Figure 27. Responses to the statement "*Increases in the parks budget should come from higher entrance fees for **out-of-state** visitors only*." **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**

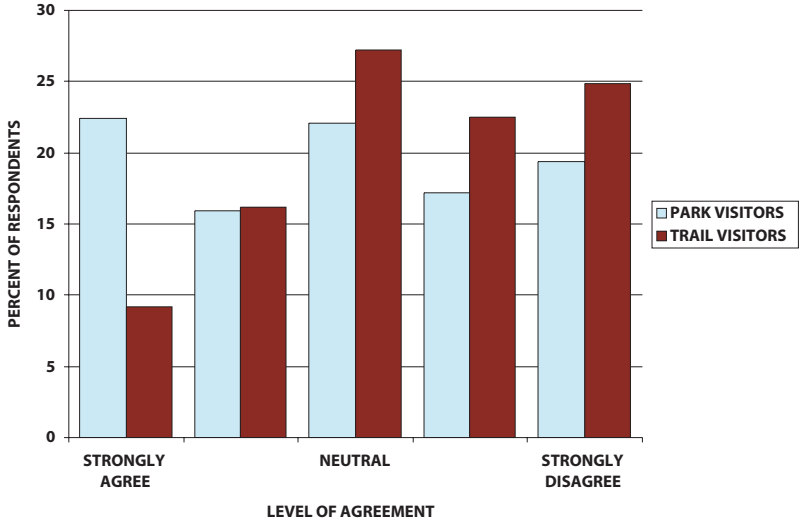


Figure 28. Responses to the statement "*Entrance fees should be higher for popular parks such as Devil's Lake, Peninsula and Interstate Park*." **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**

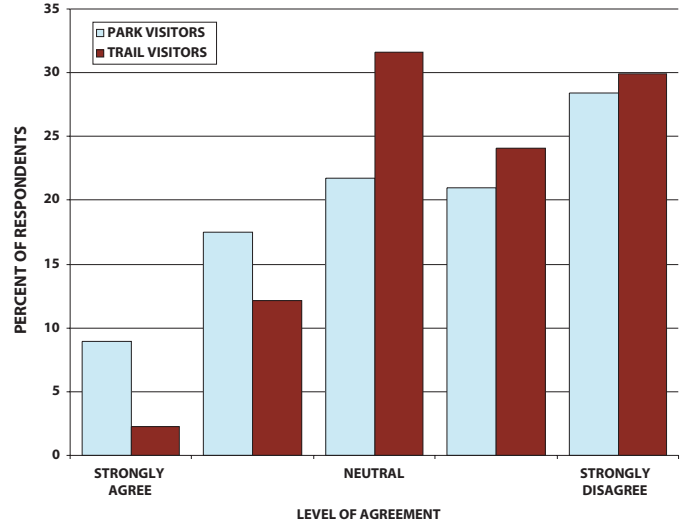


Figure 29. Responses to the statement *"Park fees charged for special services such as electricity hook-ups and RV sewage disposal are too high."* **This question was not asked of the trails survey respondents.**

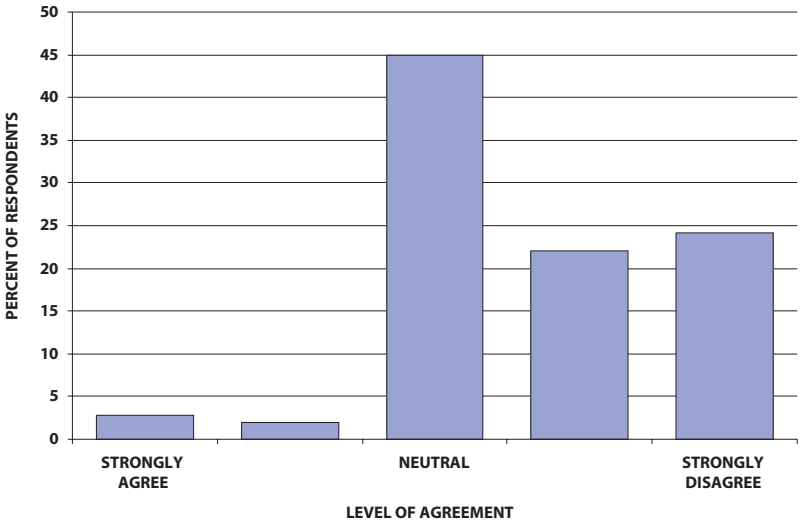
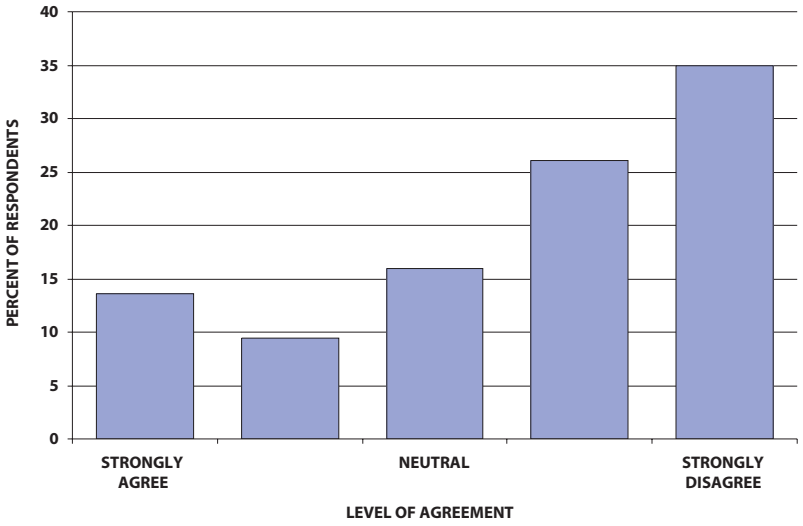


Figure 30. Responses to the statement *"Senior citizens should pay the same admission rates as other Wisconsin state park/trail visitors."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



In addition to entrance and camping fees, park users may be charged user fees to access park amenities such as electricity hook-ups. To assess this, the following statement was included in the survey: *"Park fees charged for special services such as electricity hook-ups and RV sewage disposal are too high."* This statement sought to measure user perceptions of the current price levels for these services. The responses, illustrated in figure 29, were remarkable for the small portion indicating any level of agreement (only 5%). Most respondents indicated neutrality (45%) with the remaining 50% either strongly disagreeing or falling between strong disagreement and neutrality. These findings suggested that there were almost no park visitors agreeing that the current price structure is too high. It could very well be that the price is "just right," but these findings suggest that there may be room for increases in these fees as well (note that this question was not asked of trail visitors, as trails do not include developed camping facilities.)

The current fee structure provides a discount for resident senior citizens: 50% off the price of the annual admission stickers or $2.00 off the $5.00 daily admission price. A statement was included that read as follows: "*Senior citizens should pay the same admission rates as other Wisconsin state park visitors*." This statement sought to measure the user opinion with respect to this discount policy. Responses are summarized in figure 30.

Note from the figure that responses suggested relatively high levels of disagreement with this statement. Just over 20% of the respondents indicated any level of agreement, while 35% strongly disagreed. This is the largest portion of responses for any of the funding statements to fall in either of the two "strong" sentiment categories.

In summary, the majority of park visitors expressed satisfaction with the level of services and maintenance at the parks, though of the two there was slightly less satisfaction with maintenance. Visitors support funding parks through general state revenues over higher fees, which is consistent with users of these types of goods seeking funding mechanisms from the widest base possible. Among user fees options, there was greater support for charging higher amounts to out-of-state visitors. This does not carry over to trail users where the current fee structure assesses in- and out-of-state visitors equally. There was not much support for higher camping fees, particularly among campers, but at the same time there are few visitors who thought that the charges for electricity and sewage disposal were too high. The notion of charging more for access to highly used parks did not receive much support, nor does the idea of charging equal amounts to senior citizens as other park visitors.

Other fee-related findings: Annual stickers are a significant source of fiscal resources for the park system, as well as a potential measurement of park usage. The telephone survey results indicated that 28% of the park visitors stated that they had purchased a state park sticker. This number increased for summer visitors (30%) but was not much higher than the off-season sample (27%). This suggested that a relatively stable percentage of park visitors purchased annual stickers. The telephone survey findings and the mail survey findings differed dramatically with respect to park stickers, with 70% of mail survey respondents indicating that they had purchased a sticker.

Land use in the local region surrounding state parks and trails

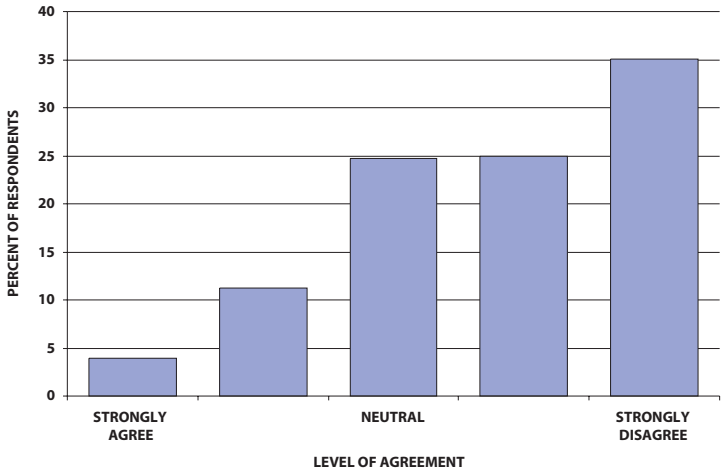
Land use issues are common throughout Wisconsin, particularly in areas where incompatible uses are sited in close proximity to one another. Planning, zoning and subdivision regulations are tools used by local governments to influence the scale, timing and nature of development. State parks and trails managers have limited options for influencing the character of development in the area near parks, yet development in these areas can have significant effects on the manager's ability to fulfill the park's mission. To the extent that development near parks or trails preempts the possibility of ecosystem scale management, parks are at risk of becoming islands of ecologically valuable public land surrounded by different, perhaps incompatible land uses.

One would expect variation among parks and trails visitors with respect to the issues of land use near parks. Some visitors are likely to have noticed the changes taking place near the parks that they visit. It is proposed here that an individual's views on land use issues and protected areas involves a complex combination of their beliefs on the roles of local governments, the park managers, and the relative need for government intervention to protect parks and trails compared to a community's right to self determination. To gain insights into these views, the parks and trails visitor surveys included a section on visitor views on development near state parks and trails.

Respondents provided responses to Likert-type scales from "strongly agree" to "strongly disagree" for several statements related to land use. Figures 31 through 40 illustrate the overall responses given to these questions. Each is discussed in detail in the following section.

A statement was included that read as follows: "*Stores and commercial development should be encouraged in the area immediately adjacent to a state park/trail.*" This statement was designed to elicit visitor attitudes on the potential for commercial development in the area near a state park. Retail development near parks is a common phenomena in Wisconsin, as park visitors provide a fairly strong demand for consumer goods. This is especially true during summer months when gas stations, groceries and souvenir shops experience boosts to the local customer base. The nature of such development varies, from the relatively benign to the visually obnoxious. The distribution of responses to this statement are found in figure 31.

Figure 31. Responses to the statement "*Stores and commercial development should be encouraged in the area immediately adjacent to a state park/trail.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



Beauty, of course, is in the eye of the beholder. This statement sought to explore the relative trade-off that park visitors were willing to make between convenience and resource protection. The overall responses to this question indicated fairly strong resistance to locating commercial projects near parks and trails, with more than 60% of the respondents indicating some level of disagreement. Note from figure 31 that less than 15% of respondents indicated some level of agreement with the statement, while the balance (25%) were neutral.

Cities and villages are the incorporated forms of municipal government in Wisconsin. Following the statement above, we included a statement that read: "*Commercial development near state parks should occur within the existing boundaries of nearby cities and villages.*" This statement explores visitor views on where commercial development is appropriate. The distribution of responses to this question are shown in figure 32. Respondents indicated a high degree of agreement with the statement, with only 8% disagreeing and 21% indicating neutrality. This suggests a fairly consistent view on the part of visitors that development should be limited to incorporated areas near parks and trails.

The next statement read as follows: "*Industrial development and manufacturing plants should be encouraged in the area immediately adjacent to state park.*" Though phrased in a fashion similar to the first statement above, this statement focused on industrial development. To the extent that it may produce air or noise pollution or be visually unappealing, industrial development is likely to be unfavorable to parks and trails visitors seeking a natural experience. At the same time, such development is more likely to provide year-round employment to a local community at a higher level of compensation than the service and retail sector. Responses (summarized in figure 33) indicated that parks and trails visitors indeed view industrial development unfavorably, with 75% reporting "strongly disagree" and another 17% falling between strongly disagree and neutral. Only 2% of respondents indicated some level of agreement with this statement.

Another statement was included that read as follows: "*Development in rural Wisconsin should be discouraged so that open space can be protected.*" This statement was designed to explore more general conceptions on the desirability of development in rural areas. Urban expansion, the development of second homes, and ex-urban commercial and industrial development have diminished the total amount of open, undeveloped landscape in Wisconsin. At the same time, such development has provided employment and economic

Figure 32. Responses to the statement *"Commercial development near state parks/trails should occur within the exiting boundaries of nearby cities and villages."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

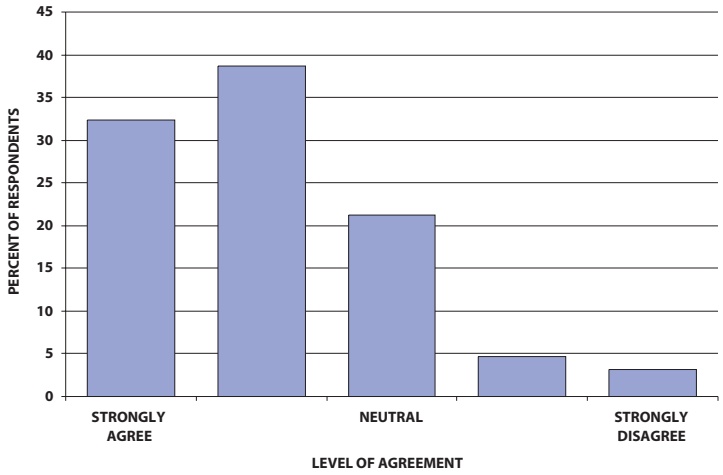
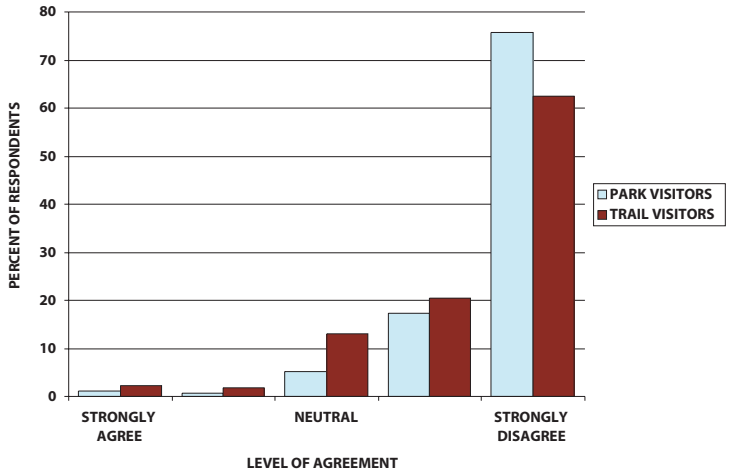


Figure 33. Responses to the statement *"Industrial development and manufacturing plants should be encouraged in the area immediately adjacent to state park/trail."* **Differences between parks and trails survey respondents statistically significant at the p<.05 level.**



opportunities throughout the state. The distribution of responses to this statement are shown in figure 34. Among parks and trails visitors, protecting open space by discouraging development was a popular notion, with over 50% strongly agreeing with the statement. Only 12% of respondents indicated disagreement with this statement.

The following statement was included: "*Agricultural development and farms should be encouraged in the area immediately adjacent to state parks/trails.*" Similar to the first and third statements, this one explored visitor views on agricultural development. Arguably the least intense of the three land uses, large-scale agriculture and farms have been a part of Wisconsin's landscape for almost 200 years. Still, farms represent a spatially expansive use of land that is not fully compatible with all forms of recreation nor with all aspects of ecosystem management. As shown in figure 35, responses to the agriculture statement indicated a generally lower level of consensus than most other statements; both of the agreement categories and the neutral category each garnered about 30% of the responses. Less than 10% of respondents indicated disagreement with this statement.

Figure 34. Responses to the statement "*Development in rural Wisconsin should be discouraged so that open space can be protected.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

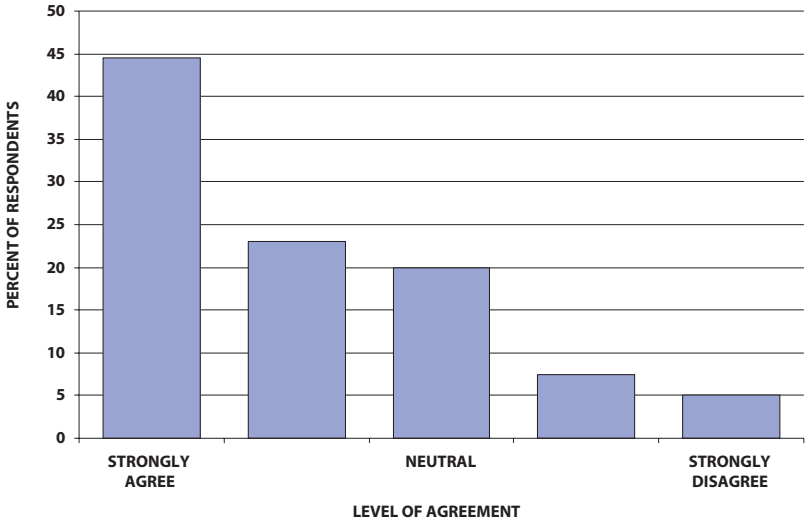


Figure 35. Responses to the statement "*Agricultural development and farms should be encouraged in the area immediately adjacent to state parks/trails.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

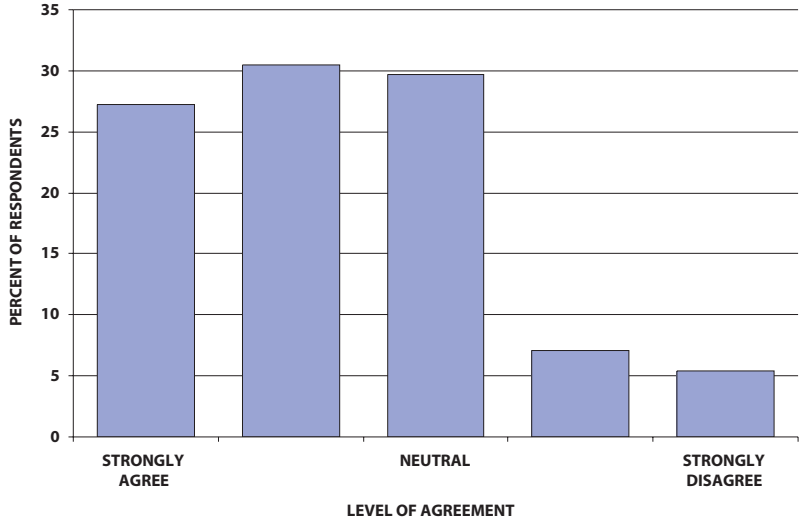


Figure 36. Responses to the statement *"Dense housing developments should be prohibited in the area immediately adjacent to a state park/trail."* **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

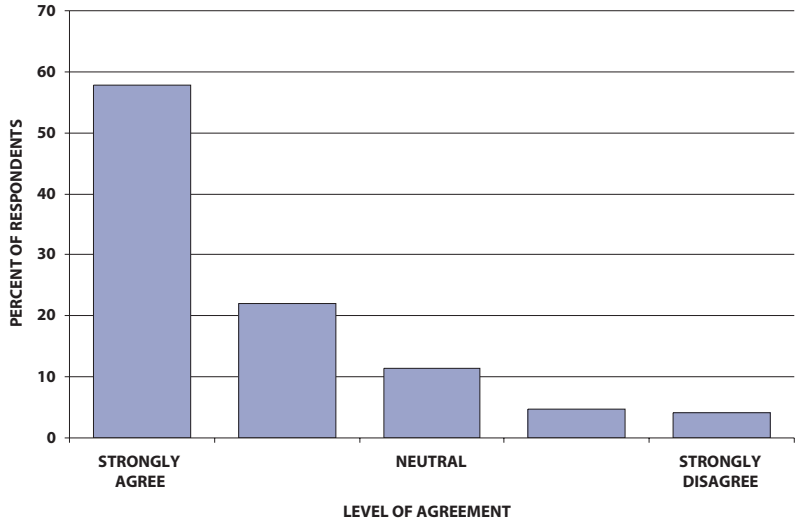
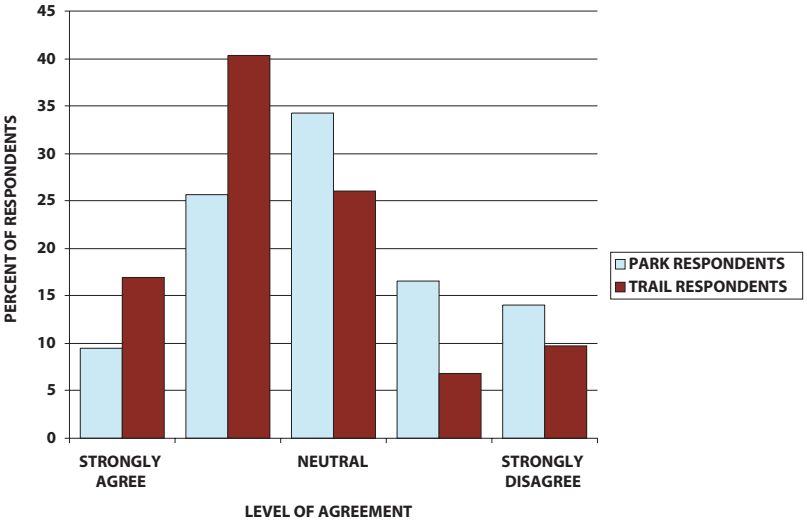


Figure 37. Responses to the statement *"Private campgrounds and recreational development should be encouraged in the areas immediately adjacent to a state park/trail."* **Differences between parks and trails survey respondents statistically significant at the p < .05 level.**



The following statement was included: *"Dense housing developments should be prohibited in the area immediately adjacent to a state park/trail."* This statement attempted to capture a more active form of land use management, that of prohibiting a specific land use. Here, the land use is dense housing developments; the a-priori assumption being that most park or trail visitors wish to limit this form of development at least as much as commercial and industrial development, though perhaps not as strongly as agricultural development. This is borne out in the distribution of the responses, shown in figure 36, wherein 60% of respondents strongly agreed with such a prohibition, and 20% more fell between neutral and strongly agree. Only 9% indicated disagreement with the statement, which suggests that dense housing development is viewed by park and trail visitors about as favorably as industrial development.

The final land use statement read as follows: *"Private campgrounds and recreational development should be encouraged in the areas immediately adjacent to a state park/trail."* This time the subject was more difficult—to define "recreational development." Parks and trails themselves are a form of recreational development, and it is thought that of the five different land use options (recreational, commercial, industrial, residential, agricultural), this would receive the most favorable response. Responses to this statement are summarized in figure 37. Note from the figure that this does not appear to be the case, as private campgrounds and recreational development were rated rather poorly compared to agricultural development and farms (see figure 35). Less than 10% of respondents strongly agreed to the statement, and unlike the more intense land uses, there were more people in favor of this type of development (35%) than in opposition (30%). To the extent that respondents conceived of recreational development as the intense amusement-park style of development, this result is perhaps understandable. The near-tie between those who agree and those who disagree with this statement indicated a potential dilemma for anyone seeking to encourage off-park development of recreational facilities to accommodate excess recreation demand. While such a strategy would be consistent with the majority of visitors, a significant number would apparently prefer agricultural development or no development.

Autonomy and control are important issues for local units of government. To assess this, the following statement was included: *"Development decisions near state parks/trails are statewide issues that all Wisconsin residents should be involved in."* This statement was designed to elicit a visitor's view on the level of autonomy that should be granted to local governments near parks in setting land use policy for the area surrounding

the resource. Responses to this statement are summarized in figure 38. Note from the figure that there appeared to be a rather high level of agreement among park and trail visitors that development near parks and trails is more than a local issue. Fully 38% of respondents strongly agreed with this statement, and a total of 72% indicated some level of agreement. Only 9% of respondents disagreed with this statement.

In summary, these land use statements provided a snapshot of the park visitors' perspectives on land use and development issues near parks and trails. Overall, the visitors indicated a rather strong anti-development stance when asked about the area immediately surrounding parks and trails. Of five potential land use types (recreational, commercial, industrial, residential, agricultural), agricultural development was viewed most favorably. Visitors also expressed the idea that development decisions near state parks should involve more than local interests. Combined, these two general findings indicated that parks and trails visitors want to be at the table when land use decisions are made and that they are likely to bring an anti-development stance. While this finding in itself is perhaps no surprise, it should be noted that the park and trail visitor surveys included a significant number of people who live in close proximity to the park. In addition, whether or not a respondent was local to the park or trail they visited had apparently little to no influence on their responses to these ten statements. Thus, even local park and trail visitors sought extra-local participation in land-use decisions in their own community when such decisions may impact the park.

Local development in communities surrounding parks

A pair of statements were included among the land use statements discussed above to assess the visitor perception of local economic development in the area near parks and trails. What follows is a brief analysis of responses to these statements.

A statement was included that read as follows: "*Spending by Wisconsin state park/trail visitors creates jobs and development near parks that otherwise would not exist.*" This statement was designed to elicit visitor attitudes on the relative role of the park or trail as a driving force in local development and economic activity. Responses to this statement are summarized in figure 39. Note from the

Figure 38. Responses to the statement "*Development decisions near state parks/trails are statewide issues that all Wisconsin residents should be involved in.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

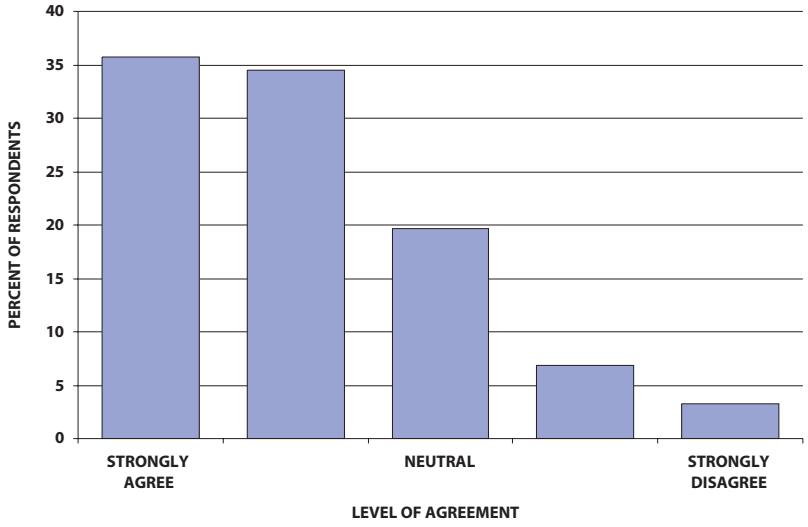


Figure 39. Responses to the statement "*Spending by Wisconsin state park/trail visitors creates jobs and development near parks that otherwise would not exist.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**

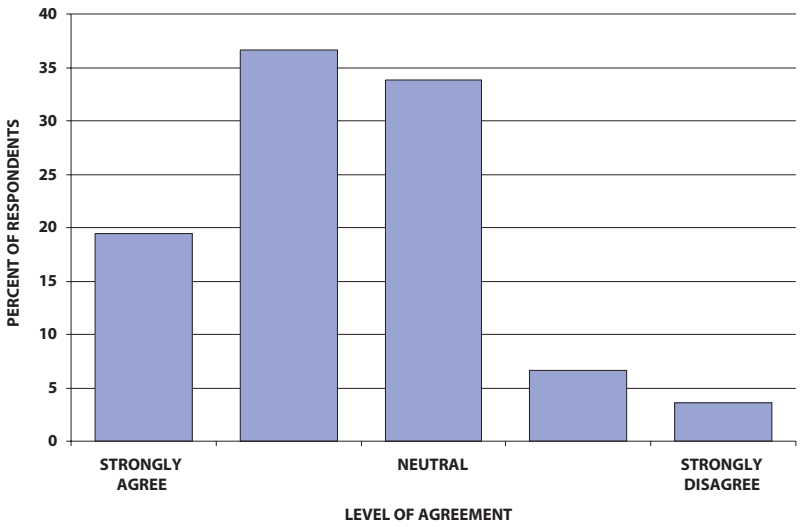
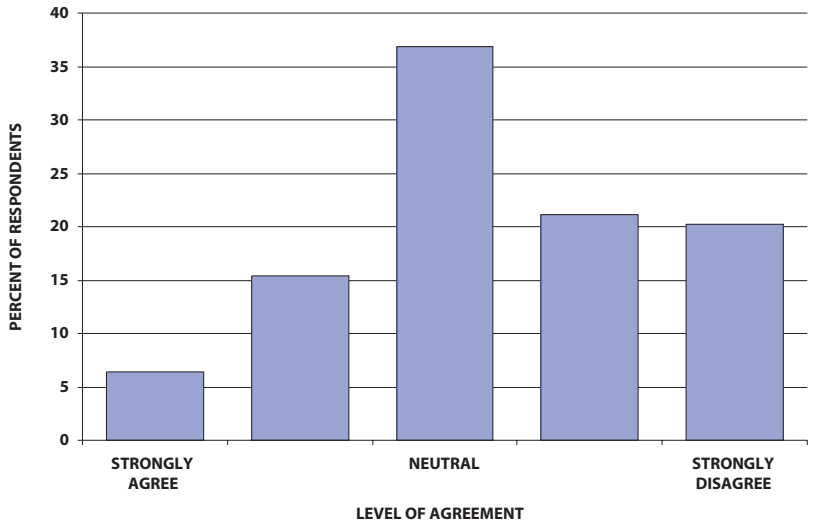


figure that there did not appear to be much "strong agreement" with the statement (21%), but there were clearly more visitors who agreed (59%) than disagreed (11%).

The final statement in this series was intended to explore the visitors' views on the role of government in encouraging development in communities near parks. It read as follows: "*Government should help attract businesses and development in communities near Wisconsin state parks/trails.*" The results thus far have indicated that respondents had a generally negative view towards development on lands adjacent to state parks and trails, but that they were also somewhat cognizant of the potential for parks and trails to support businesses and development in rural areas. Responses to this statement are summarized in figure 40. Note from the figure that 42% of respondents expressed disagreement and less than 20% expressed any level of agreement. At 38%, this statement also received the highest percentage of responses in the "neutral" category among all of the previous land use/economic development statements. This perhaps indicates a high level of uncertainty with regards to the role of government in attracting development.

Figure 40. Responses to the statement "*Government should help attract businesses and development in communities near Wisconsin state parks/trails.*" **There was no statistically significant difference in the response to this statement between parks and trails respondents.**



Assessing local residents' perspectives on park issues

The final objective of this study was to estimate the local social and economic development impacts of the Wisconsin Parks and Trails System on communities surrounding state properties. In large part, this objective focused on identifying, in a qualitative sense, some of the general attributes of societal benefit derived from the Wisconsin State Parks and Trails system. This aspect was partially dealt with in our assessment of benefits from a park or trail user perspective. Another aspect of this, however, deals with the local benefits and costs originating from parks and trails for residents, business owners, and interested stakeholders who live in close proximity to these public lands. This section outlines our efforts in assessing these local benefits and costs. In doing so, we focus attention on the perceptions and attitudes of local individuals and groups with respect to the state parks and trails close to them.

Tourism and local development

- **Local civic leaders and business owners were generally positive about the role of state park visitors in contributing to local development. Local residents, on the other hand, were a bit more skeptical and had concerns about the dramatic seasonal aspects of park visits and the impact parks users had on locally available resources.**
- **Parks and trails visitors were aware of how they impacted local communities and were generally concerned about development in communities surrounding parks.**

As an initial effort, we utilized a case study approach to gather data on resident perceptions.[7] Three case studies were selected based on park and trail use, geographical location, community attributes, and local initiative. Our interest with the case studies was to examine a set of representative rural situations across Wisconsin. These case studies help develop a more critical understanding of how public lands in general (and the state parks and trails system specifically) interact with local economic, social, and environmental assets. While the user survey assessed "demand" for state parks and

[7]Additional research which more clearly and systematically assesses resident perceptions regarding the State Parks and Trails System has been outlined by the authors elsewhere and remains for future research.

trails, the case studies provide information about the "supply" of additional community-level attributes related to outdoor recreation.

Focus groups were conducted with an array of local stakeholder groups including local business owners, local policy makers, local residents, local industry interests, and local institutions. Overall, the issues dealt with in these focus group interviews included: 1) the role of park/trail visitors in generating local dollars; 2) the role of the parks/trails in providing local quality-of-life; 3) the use of state park/trail by local residents; and 4) important development issues surrounding state parks/trails.

The method of data collection involved tape recording and writing memos on a variety of interviews and informal discussions. Content analysis identified general themes and was used to provide a contextual basis for comparison with other types of data and as a means to develop additional survey instruments. A total of 12 focus group interviews were conducted with 105 people in three communities. These case study communities included Baraboo (with reference to Devil's Lake State Park), Mellon (with reference to Copper Falls State Park) and Wittenburg (with reference to the Mountain Bay/WIOWASH State Trail). Appendix A contains specific information and the gross content analysis from these case studies. The following is an overview of results obtained from the focus group interviews organized by relevant stakeholder groups.

Results of the focus group interviews

Local civic leaders. In each of the three case study sites, a separate focus group was conducted with local civic leaders including elected officials (county, town, and municipal) and government professionals. Local civic leaders were generally positive about the role of the park and its visitors in contributing to local economic development. They did, however, express an overriding concern about the future vitality of the community and the needs of the constituents they represented. Their interests with respect to the nearby state property focused on issues associated with local use of the recreational site. Additionally, this group was concerned about land use within the community and specifically those sites that lay directly adjacent to the park or trail property.

Local civic leaders were well aware of control issues and the need for a larger constituency to have input in park and trail management issues. They did, however, identify the need for greater local input into how parks and trails were developed and managed given complex issues of land use control and public policy-setting. Whereas jurisdictional issues of budget and policy were identified as problematic, the ability to inject local concerns into park management appeared to depend largely on the local superintendent and his/her staff who were responsible for park or trail operations and decision-making. Where these state employees made themselves available and were aware of and personally integrated into community issues, there tended to be less difficulty with interaction at the local level. Issues regarding state trails development and management were perhaps less locally focused, given the wide variation in management and the sharing of responsibilities for maintenance and facility upkeep.

Local civic leaders voiced some concerns with how tourism compares with other forms of development and were not unanimous in its support. Where deemed appropriate, local leaders voiced concern over issues of marketing as this component appears to be a key to maximizing the benefits of tourism.

Local business owners. Again, each of the three case studies incorporated an individual focus group that targeted local business owners. Given the nature of our assessment, these businesses tended to be those with an interest in local tourism including restaurant owners, hotel operators, and service providers.

Among these groups, the potential of tourism was well-understood as a source of business receipts for owners of retail and service firms. Business owners appeared to be well-versed in the nature of their respective demands including the seasonality and the general levels and types of spending associated with parks and trails visitors.

Among business owners, there was an overall concern about the general lack of community marketing with respect to state parks and trails. Business owners saw the potential for increased parks and trails promotion within their overall tourism promotion strategies for local economic development. There was a consistent interest expressed in working more closely with park and trail management—particularly for advertising their own businesses within the nearby state-operated recreational facility.

Business owners also provided anecdotal evidence that parks and trails have positive impacts on adjacent residential and commercial property values. In addition to direct business receipts, the presence of parks and trails were viewed as important community assets. Furthermore, business owners realized that local use of the state property was an important benefit for local residents that helped improve local quality-of-life attributes.

Local residents. All three case studies included a specific focus group that was targeted toward a group of local residents (the Baraboo case study also included a local civic institutions group). There was wide variation in the backgrounds of focus group participants within this category and our interest was to explore issues associated with the state parks and trails system from a community well-being perspective.

Among all groups, the residents were more apt to be skeptical of the role tourism (and tourists) play with respect to current economic activities and future community change. Among residents, there was a certain amount of local resistance to change in general, thus making planning for new types of development difficult. In this regard, there appeared to be a tendency against accepting visitors outright. In particular, residents had comments such as "locals don't want to see outsiders" and "… visitors don't spend much locally." Several people voiced the notion that "the outsiders have taken over" and expressed concern that their (the community's) local asset (the park or trail) was unavailable to them or overcrowded by non-locals during peak periods of usage (mainly during the summer months).

Furthermore, local residents voiced the concern that although park and trail users may spend money locally, they also place increased demands on locally provided services. Some raised the notion of whether or not the benefits from visitor spending outweighed costs of service provision. Overall, there was some concern voiced that recreational development for visitors puts a "squeeze" on locals. This took the form of both concern over crowding within the community and a concern for the tendency for increased upward pressure on local prices for items needed for day-to-day life such as groceries. This type of inflationary impact also extended into local government finance issues associated with escalating land values and property tax burdens.

Finally, there was an overall sentiment expressed that use of the park and/or trail by local residents was, in theory, a primary benefit and that this use was often displaced, particularly during the busy summer months. As a result, it appeared difficult to generate support among local residents for the seasonal economic boost associated with tourism, especially given displacement of local use, the increased need for local service provision, and the perceived marginal benefits associated with visitors being present within their local community.

Local industrial interests. In the Baraboo and Mellon case studies, we conducted a separate focus group interview with local industrial interests. These included both industry representatives and land-based agriculture/forestry interests.

Among the industrial interest groups, there was an overall sentiment expressed that there exists a need for a broader approach to balancing tourism development with traditional uses of community assets and available resources. Again, like the local residents, industrial interests voiced some reluctance to see increased tourism dependence in the local community given marginal benefits derived by a relatively small number of local retail and service firms.

Economic impacts of the system

- **Visitor spending on recreation items related to state park visits exceeded $500 million in 1999.**
- **The average state parks visitor spent almost $40 per day on recreation-related items in Wisconsin.**
- **Out-of-state visitors injected roughly $225 million in spending on parks-related trips into Wisconsin during 1999. This spending is associated with the creation and/or maintenance of more than 8,000 jobs.**
- **The regional economic impacts were the greatest in the southwestern part of the state, which reflects regional visits to the state park system.**

The industrial representatives had an overriding interest in keeping and attracting good, highly skilled workers in the area. They were acutely aware of their respective local labor markets and the apparent "brain drain" brought about by the lack of "good" jobs in the local community. This was identified as closely related to the trend toward an increasing number of local employment opportunities that were perceived to have lower skill requirements that resulted in a predominance of lower wage jobs, fewer employee benefits, and more seasonal employment demands.

The industrial interests voiced a general lack of *local* connection to the park, a concern that local residents' use of the park was low, and that outsiders have somehow taken over. Also, overall, their motivation and interest was in promoting development that led to a growing local economy resulting in improved economic welfare of local households.

In concluding this section, it should be noted that findings based on purposive sampling are difficult to generalize. This is true both internally (within the community examined) and externally (applying results outside of the community examined). The richness of responses to focus group discussions, however, provides a broad context for future work. Additional research which more clearly and systematically assesses local stakeholder perceptions regarding the State Parks and Trails System can provide improved issue validity. This additional research has been outlined by the authors in proposal form and remains for future research.

Economic impacts of state parks and trails

In addition to resident perceptions, another important aspect of this study was to determine the current economic impact of visitors to state parks and trails to Wisconsin and within relevant regions of the state. This was done in two phases. Information was first gathered on visitor expenditures and then expanded to total populations through the use of control procedures. These expenditure patterns were then applied to inter-industry input-output models of the respective regions to assess how this expenditure affected local business activity and economic structure. In this section, we address each of these issues.

Direct impacts on local communities

The direct economic impact of visitors to state parks and trails occurs through their spending for trip-related items such as overnight stays, eating, and automobile-relate expenses. We first outline expenditure patterns for visitors in the aggregate. Then, we disaggregate spending into regions and origins of visitors. This is done to allow for further assessment of the indirect and induced impacts (to be defined in a later section) of visitor spending. Our ultimate need was to identify non-local expenditure patterns broken down by each relevant region for assessment.

Expenditures of park visitors. The mail survey included a section for respondents to report their group's spending among several categories. Based on control procedures,[8] we estimated individual spending patterns per visit day for expansion to total spending levels. Our results suggested that trip spending was greatest for grocery items, automobile-related items such as gasoline, and eating/drinking.

Aggregate annual park visit spending for groups per trip and individuals per visit-day are summarized in table 5. The individual spending per visit-day estimate was used to calculate total annual spending. As noted in the table, respondents reported spending just short of $200, on average, for their group's trip. When trip spending is normalized for group size and length of stay (spending per visit-day), lodging at hotels and motels emerged as the category with the highest level of visitor spending. Finally, by expanding the visitor day estimate by the total number of estimated visitor days, an estimate of total annual spending by park visitors was created. Our estimates suggest that total spending by visitors to the State Park System was just over $500 million during the 12-month period assessed by the survey effort (September 1999 through August 2000).

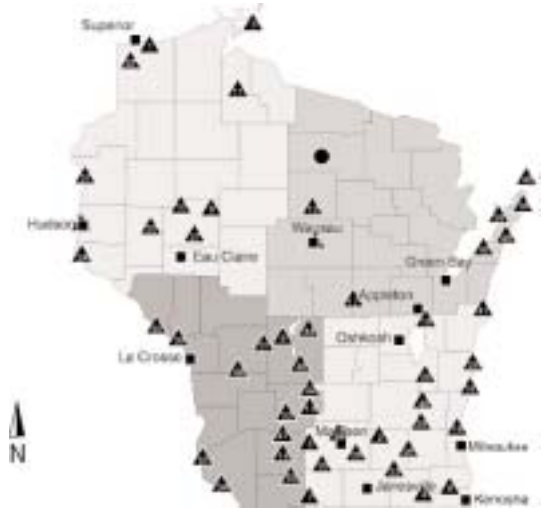
Estimating regional expenditure patterns. Estimating regional economic impact begins with the use of regional expenditure patterns. The statewide estimate is found in table 5 but, again, this is an aggregate estimate. For analyzing regional economic impacts, we focused on disaggregating spending into that which was spent by "locals" (or residents of the region being analyzed) and that which originated from (was spent by) non-locals. **The non-local portion represented "new" dollars flowing into the region from elsewhere.**

For purposes of this report, we have identified five regions for analysis. In addition to the statewide region, we use the four sub-state regions identified by the WDNR BPR in their marketing information. To operationalize the modeling, we've simplified the four quadrants by county-lines as identified in figure 41. Using this regional delineation, our survey results were cross-tabbed to reflect origin of respondent by mailing address of sample and region of the state visited to estimate this local/non-local spending phenomenon.

Table 5. Overall mean expenditure pattern for park visitors.

Category	Group spending/trip	Spending/ visit day	Total annual spending
groceries and liquor	$51.24	$5.89	$81,847,702.29
restaurants and bars	$32.66	$5.81	$80,802,150.28
casinos/ gambling	$4.23	$1.03	$14,385,762.38
gasoline, automobile service	$33.64	$5.54	$77,001,491.52
lodging at hotels, motels or resorts	$25.48	$7.20	$100,049,846.97
recreational equipment purchases	$10.71	$4.96	$68,982,659.41
recreation equipment rental	$3.45	$0.49	$6,850,689.41
gifts, toys and souvenirs	$15.18	$3.23	$44,951,187.29
bait and tackle	$3.82	$1.14	$15,780,165.38
museums & amusement parks	$6.54	$0.80	$11,127,572.25
recreational licenses	$4.57	$1.24	$17,284,104.78
Total	**$191.51**	**$37.34**	**$519,063,331.96**

Figure 41. Regions used for the economic impact assessments.



[8]This was based on information from our representative sample of trip length and party size given visitation levels as estimated from the WDNR Bureau of Parks and Recreation. Specifically, spending per visit day was estimated at the record level with each respondent's trip spending being divided by trip length and group size to obtain individual per trip day spending. These were then expanded using total visit day estimates from the WDNR BPR. Further discussion of this expansion can be found in the methods section (Chapter 2) and the beginning of Chapter 3.

A summary of the expenditure patterns of local and non-local visitors can be found in table 6 for parks visitors and in table 7 for trails visitors. This is reported for locals and non-locals with the first column of each reporting individual spending per visit day and the second reporting our estimated regional expenditure. This expanded regional value represented total spending for the 12 months assessed through the use of the expansion procedure outlined above.

As expected, there were important differences in expenditure patterns when comparing local and non-local parks and trails visitors. Our results suggested that, across-the-board, non-locals had significantly higher expenditures in most categories. This made sense given the longer travel distances of non-local visitors. At this point, it is important to note that regional spending patterns were calculated for each region in isolation with non-local visits to the region left unspecified with respect to the point of origin. For example, non-local spending for the Northeastern region of the state included spending by all visitors not resident within Northeastern Wisconsin (both within other parts of Wisconsin and elsewhere). For this reason, the sub-state regional estimates of spending were not intended to sum to total statewide estimates.

Table 6. Local and non-local park spending by region.

	Local park visitors		Non-local park visitors		
Spending category	**Spending/visit day**	**Total spending**	**Spending/visit day**	**Totals pending**	**TOTAL**
Entire State					
Groceries and liquor	$5.79	$57,032,015	$6.49	$26,238,137	$83,270,153
Restaurants and bars	$5.00	$49,293,917	$10.60	$42,903,317	$92,197,234
Casinos/gambling	$0.40	$3,917,426	$4.80	$19,422,268	$23,339,694
Gasoline and automobile service	$4.87	$48,039,163	$9.47	$38,305,099	$86,344,262
Lodging at hotels, motels or resorts	$5.74	$56,586,303	$15.80	$63,915,384	$120,501,687
Recreational equipment purchases	$5.76	$56,768,071	$0.27	$1,110,280	$57,878,351
Recreation equipment rental	$0.55	$5,394,065	$0.17	$694,694	$6,088,760
Gifts, toys and souvenirs	$2.79	$27,469,896	$5.87	$23,753,373	$51,223,269
Bait and tackle	$1.31	$12,872,882	$0.13	$505,988	$13,378,870
Fees for museums, amusement parks	$0.74	$7,267,981	$1.17	$4,745,380	$12,013,361
Recreational licenses	$1.31	$12,947,350	$0.83	$3,353,439	$16,300,788
Sub-totals	**$34.25**	**$337,589,071**	**$55.60**	**$224,947,359**	**$562,536,430**

Table 6. Local and non-local park spending by region, continued

Spending category	Local park visitors		Non-local park visitors		TOTAL
	Spending/visit day	Total spending	Spending/visit day	Totals pending	
Northwest Region					
Groceries and liquor	$10.99	$5,526,258	$10.49	$12,840,611	$18,366,869
Restaurants and bars	$2.11	$1,062,235	$5.37	$6,571,073	$7,633,307
Casinos/gambling	$0.00	$0	$6.05	$7,405,552	$7,405,552
Gasoline and automobile service	$5.86	$2,943,774	$12.06	$14,767,756	$17,711,530
Lodging at hotels, motels or resorts	$3.13	$1,570,911	$8.35	$10,219,211	$11,790,122
Recreational equipment purchases	$21.42	$10,767,968	$0.31	$384,120	$11,152,088
Recreation equipment rental	$0.00	$0	$0.61	$747,308	$747,308
Gifts, toys and souvenirs	$0.09	$44,890	$1.42	$1,736,389	$1,781,280
Bait and tackle	$2.11	$1,059,118	$2.04	$2,501,854	$3,560,972
Fees for museums, amusement parks	$0.28	$142,130	$0.65	$796,126	$938,256
Recreational licenses	$2.08	$1,047,274	$0.70	$852,636	$1,899,910
Sub-totals	**$48.07**	**$24,164,558**	**$48.04**	**$58,822,636**	**$82,987,194**
Northeast Region					
Groceries and liquor	$7.38	$5,078,589	$5.64	$8,439,980	$13,518,569
Restaurants and bars	$5.28	$3,636,065	$14.04	$20,997,851	$24,633,917
Casinos/gambling	$0.00	$0	$1.12	$1,677,680	$1,677,680
Gasoline and automobile service	$3.20	$2,205,260	$6.50	$9,717,999	$11,923,258
Lodging at hotels, motels or resorts	$0.29	$198,632	$18.42	$27,551,698	$27,750,330
Recreational equipment purchases	$0.14	$99,316	$0.14	$207,053	$306,369
Recreational equipment rental	$0.00	$2,066	$2.21	$ 3,302,290	$3,304,356
Gifts, toys and souvenirs	$1.63	$1,121,494	$8.26	$12,349,393	$13,470,887
Bait and tackle	$0.22	$151,292	$0.17	$251,412	$402,704
Entrance fees for museums or amusement parks	$0.17	$116,184	$0.76	$1,136,235	$1,252,419
Recreational licenses	$0.81	$554,845	$0.20	$301,574	$856,419
Sub-totals	**$19.12**	**$13,163,742**	**$57.46**	**$85,933,165**	**$99,096,907**

Table 6. Local and non-local park spending by region, continued

Spending category	Local park visitors		Non-local park visitors		TOTAL
	Spending/visit day	Total spending	Spending/visit day	Totals pending	
Southeast Region					
Groceries and liquor	$4.08	$15,696,730	$4.64	$9,480,477	$25,177,207
Restaurants and bars	$2.80	$10,772,015	$4.66	$9,517,620	$20,289,635
Casinos/gambling	$0.00	$0.	$0.00	$0	$0
Gasoline/automobile service	$3.58	$13,773,878	$5.38	$10,985,563	$24,759,441
Lodging at hotels, motels or resorts	$3.17	$12,214,914	$10.50	$21,449,044	$33,663,958
Recreational equipment purchases	$16.28	$62,642,160	$0.52	$1,072,058	$63,714,218
Recreation equipment rental	$0.20	$764,103	$0.18	$377,322	$1,141,425
Gifts, toys and souvenirs	$0.81	$3,117,708	$0.68	$1,397,370	$4,515,078
Bait and tackle	$3.12	$12,018,977	$0.12	$254,600	$12,273,577
Entrance fees for museums or amusement parks	$0.29	$1,120,721	$0.07	$138,045	$1,258,766
Recreational licenses	$2.15	$8,288,156	$0.56	$1,146,360	$9,434,516
Sub-totals	**$36.48**	**$140,409,363**	**$27.32**	**$55,818,459**	**$196,227,822**
Southwest Region					
Groceries and liquor	$8.30	$8,354,066	$4.94	$15,282,230	$23,636,296
Restaurants and bars	$5.03	$5,068,417	$6.70	$20,705,445	$25,773,862
Casinos/gambling	$0.07	$66,971	$1.84	$5,704,736	$5,771,707
Gasoline/automobile service	$6.07	$6,115,373	$5.66	$17,492,239	$23,607,612
Lodging at hotels, motels or resorts	$0.85	$857,087	$10.07	$31,149,716	$32,006,803
Recreational equipment purchases	$0.78	$780,849	$0.93	$2,882,897	$3,663,746
Recreation equipment rental	$0.23	$232,127	$0.42	$1,298,350	$1,530,477
Gifts, toys and souvenirs	$2.89	$2,906,059	$3.71	$11,474,415	$14,380,474
Bait and tackle	$0.66	$659,778	$0.24	$748,424	$1,408,203
Entrance fees for museums or amusement parks	$0.87	$874,942	$1.82	$5,637,042	$6,511,985
Recreational licenses	$2.82	$2,839,100	$0.48	$1,498,244	$4,337,343
Sub-totals	**$28.55**	**$28,754,769**	**$36.82**	**$113,873,739**	**$142,628,508**

Table 7. Local and non-local trails user spending by region

Spending category	Local trail visitors		Non-local trail visitors		TOTAL
	Spending/visit day	Total spending	Spending/visit day	Totals pending	
Entire State					
groceries and liquor	$3.63	$1,836,000	$5.84	$571,000	$2,407,000
restaurants and bars	$5.42	$2,741,000	$13.00	$1,271,000	$4,012,000
casinos/ gambling	$0.00	$0	$0.00	$0	$0
gasoline and automobile service	$4.53	$2,291,000	$7.26	$710,000	$3,001,000
lodging at hotels, motels or resorts	$4.92	$2,489,000	$13.90	$1,359,000	$3,848,000
recreational equipment purchases	$3.24	$1,639,000	$0.40	$39,000	$1,678,000
recreation equipment rental	$0.18	$91,000	$0.69	$67,000	$158,000
gifts, toys and souvenirs	$1.18	$597,000	$9.78	$956,000	$1,553,000
bait and tackle	$0.02	$11,000	$0.12	$12,000	$23,000
fees for museums, amusement parks	$0.30	$152,000	$0.06	$6,000	$158,000
recreational licenses	$1.37	$693,000	$1.80	$176,000	$869,000
Sub Totals	**$24.79**	**$12,540,000**	**$52.85**	**$5,167,000**	**$17,707,000**
Northwest Region					
groceries and liquor	$10.49	$1,396,000	$12.26	$490,000	$1,886,000
restaurants and bars	$5.37	$714,000	$9.36	$374,000	$1,088,000
casinos/ gambling	$6.05	$805,000	$0.00	$0	$805,000
gasoline and automobile service	$12.06	$1,605,000	$17.56	$701,000	$2,306,000
lodging at hotels, motels or resorts	$8.35	$1,111,000	$7.97	$318,000	$1,429,000
recreational equipment purchases	$0.31	$42,000	$1.67	$67,000	$109,000
recreation equipment rental	$0.61	$81,000	$0.00	$0	$81,000
gifts, toys and souvenirs	$1.42	$189,000	$2.22	$89,000	$278,000
bait and tackle	$2.04	$272,000	$0.00	$0	$272,000
fees for museums, amusement parks	$0.65	$87,000	$0.00	$0	$87,000
recreational licenses	$0.70	$93,000	$2.01	$80,000	$173,000
Sub Totals	**$48.04**	**$6,395,000**	**$53.05**	**$2,119,000**	**$8,514,000**

Table 7. Local and non-local trails user spending by region, continued

Spending category	Local trail visitors		Non-local trail visitors		TOTAL
	Spending/visit day	Total spending	Spending/visit day	Totals pending	
Northeast Region					
groceries and liquor	$4.32	$69,000	$6.14	$179,000	$248,000
restaurants and bars	$22.47	$358,000	$8.02	$234,000	$592,000
casinos/ gambling	$0.00	$0	$0.00	$0	$0
gasoline and automobile service	$7.78	$124,000	$7.77	$227,000	$351,000
lodging at hotels, motels or resorts	$7.78	$124,000	$20.24	$590,000	$714,000
recreational equipment purchases	$0.00	$0	$0.00	$0	$0
recreation equipment rental	$1.25	$20,000	$0.00	$0	$20,000
gifts, toys and souvenirs	$6.55	$104,000	$6.32	$184,000	$288,000
bait and tackle	$0.06	$1,000	$0.24	$7,000	$8,000
fees for museums, amusement parks	$0.00	$0	$0.11	$3,000	$3,000
recreational licenses	$1.49	$24,000	$1.32	$39,000	$63,000
Sub Totals	**$51.70**	**$824,000**	**$50.16**	**$1,463,000**	**$2,287,000**
Southeast Region					
groceries and liquor	$2.74	$234,000	$1.31	$96,000	$330,000
restaurants and bars	$9.43	$540,000	$3.03	$331,000	$871,000
casinos/ gambling	$0.00	$0	$0.00	$0	$0
gasoline and automobile service	$3.82	$285,000	$1.60	$134,000	$419,000
lodging at hotels, motels or resorts	$6.46	$366,000	$2.05	$227,000	$593,000
recreational equipment purchases	$0.00	$112,000	$0.63	$0	$112,000
recreation equipment rental	$0.00	$55,000	$0.31	$0	$55,000
gifts, toys and souvenirs	$4.44	$121,000	$0.68	$156,000	$277,000
bait and tackle	$0.00	$0	$0.00	$0	$0
fees for museums, amusement parks	$0.00	$139,000	$0.78	$0	$139,000
recreational licenses	$0.89	$18,000	$0.10	$31,000	$49,000
Sub Totals	**$27.78**	**$1,870,000**	**$10.49**	**$975,000**	**$2,845,000**

Table 7. Local and non-local trails user spending by region, continued

Spending category	Local trail visitors		Non-local trail visitors		TOTAL
	Spending/visit day	Total spending	Spending/visit day	Totals pending	
Southwest Region					
groceries and liquor	$1.81	$102,000	$3.32	$383,000	$485,000
restaurants and bars	$1.11	$63,000	$8.45	$975,000	$1,038,000
casinos/ gambling	$0.00	$0	$0.00	$0	$0
gasoline and automobile service	$0.78	$44,000	$6.64	$766,000	$810,000
lodging at hotels, motels or resorts	$0.00	$0	$8.67	$1,000,000	$1,000,000
recreational equipment purchases	$0.00	$0	$2.13	$246,000	$246,000
recreation equipment rental	$0.32	$18,000	$0.58	$67,000	$85,000
gifts, toys and souvenirs	$0.00	$0	$1.37	$158,000	$158,000
bait and tackle	$0.00	$0	$0.24	$28,000	$28,000
fees for museums, amusement parks	$0.00	$0	$0.11	$13,000	$13,000
recreational licenses	$0.00	$0	$1.32	$152,000	$152,000
Sub Totals	**$4.02**	**$227,000**	**$32.83**	**$3,788,000**	**$4,015,000**

Indirect and induced economic impacts

Estimates of spending by non-locals provided an ability to generate economic impact measures that represent an export-base. These new dollars flowing into the regional economy can be thought of as export-based drivers of local business activity; in effect, injections of dollars into the region from the outside. We applied non-local regional spending patterns as an exogenous shock to static input-output models constructed based on 1997 county-level data for the State of Wisconsin and for four sub-regions as outlined in figure 41.

The input-output analysis captured direct impacts plus indirect and induced impacts. Some refer to indirect and induced impact as the "multiplier" impacts. For this work, the calculated "multipliers" were sector, region, and characteristic specific. These multiplier impacts can be described as follows. Local firms who receive non-local visitors experience increased demands from the outside. In turn, they purchase additional "raw materials" (goods and services) to produce their saleable good or service. These additional "raw materials" are referred to as *intermediate purchased inputs*. Examples of these may include the purchase of furniture by a local motel, food purchases of a local restaurant, or wholesale purchases of camping equipment by a local merchant for resale. These purchases are important in transmitting dollars to other local firms and feed into what is termed the *indirect economic impact* resulting from inter-industry purchases.

Additional dollars also filter into the economy through increased consumption by both new and existing residents of the region as a result of increases in aggregate household incomes. These increases occur due to the jobs created, both directly and indirectly, by visitor spending in the region. This is referred to as the *induced economic impact* resulting from increased levels of income within the region.

A key element involved in economic impact of parks and trail users identified in this study was the relative sizes (extent and scope) of the regional economies throughout Wisconsin. Many of the indirect linkages demanded by businesses in the region were imported from outside of the region and thus did not contribute to further local economic activity. The models constructed and used in identifying economic impacts were constrained to allow for local demand of goods and services to be equal to local supply.

Table 8. Annual economic impacts of non-resident spending by out of state parks visitors Wisconsin (driven by visitor expenditures as applied to statewide input-output model constructed using MicroIMPLAN—in 1997 dollars)

	Direct effects			Indirect effects			Induced effects		
Sector[1]	Output ($)	Income[2] ($)	Jobs[3]	Output ($)	Income[2] ($)	Jobs[3]	Output ($)	Income[2] ($)	Jobs[3]
Agriculture/Forestry	$ 1,131,000	$ 172,000	14	$ 1,507,000	$ 402,000	24	$ 1,041,000	$ 211,000	13
Mining	0	0	0	18,000	11,000	0	20,000	12,000	0
Construction	0	0	0	4,508,000	2,695,000	64	1,422,000	768,000	20
Manufacturing	3,000	1,000	0	10,003,000	3,339,000	66	6,893,000	2,140,000	38
Transp./Utilities	4,000	3,000	0	8,815,000	5,327,000	68	4,843,000	2,966,000	34
Trade	125,881,000	86,625,000	3,934	4,689,000	3,169,000	74	16,179,000	11,246,000	434
F.I.R.E[4]	0	0	0	10,654,000	7,675,000	109	15,553,000	11,600,000	88
Services	74,901,000	41,865,000	2,067	16,396,000	9,701,000	374	20,869,000	12,067,000	419
Government	3,793,000	1,588,000	27	1,842,000	996,000	20	1,516,000	694,000	14
Institutions[5]	6,596,000	0	0	0	0	0	103,000	103,000	12
Total[6]	**$ 212,308,000**	**$ 130,253,000**	**6,042**	**$ 58,431,000**	**$ 33,316,000**	**799**	**$68,439,000**	**$ 41,808,000**	**1,071**

[1]Aggregated to standard 1 digit SIC categories, [2]Income represents total value added which includes employee compensation, proprietors income, other property type income and indirect business taxes. [3]Total number of jobs, NOT full time equivalents [4]Finance, Insurance, and Real Estate [5]Institutions include households. [6]Columns may not sum to total due to rounding.

Table 9. Total[1] annual income and employment impacts of spending by non-local parks visitors to sub-state regions of Wisconsin (driven by visitor expenditures as applied to input-output models constructed using MicroIMPLAN — in 1997 dollars)

	Statewide		Southwest		Southeast		Northwest		Northeast	
Sector[1]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]
Agriculture/Forestry	$784,000	52	$575,000	40	$102,000	6	$238,000	16	$222,000	13
Mining	24,000	0	10,000	0	5,000	0	4,000	0	5,000	0
Construction	3,463,000	83	1,655,000	42	908,000	21	763,000	21	1,097,000	28
Manufacturing	5,479,000	104	1,816,000	46	1,243,000	22	925,000	21	1,591,000	34
Transportation/Utilities	8,296	102	3,824,000	52	1,982,000	24	1,921,000	27	3,005,000	41
Trade	101,041,000	4,442	51,778,000	2,471	25,174,000	1,062	30,563,000	1,313	37,414,000	1,755
F.I.R.E[4]	19,276,000	198	6,503,000	74	5,074,000	52	3,203,000	32	6,150,000	70
Services	63,633,000	2,860	27,899,000	1,437	15,747,000	659	12,939,000	656	22,624,000	1,014
Government	3,278,000	61	1,326,000	42	982,000	14	750,000	22	679,000	17
Institutions[5]	103,000	12	64,000	9	24,000	3	33,000	5	36,000	4
Total[6]	**$ 205,377,000**	**7,912**	**$ 95,450,000**	**4,212**	**$ 51,240,000**	**1,861**	**$ 51,341,000**	**2,112**	**$ 72,824,000**	**2,976**

[1]Includes direct, indirect, and induced economic impacts [2]Income represents total value added which includes employee compensation, proprietors income, other property type income and indirect business taxes. [3]Total number of jobs, NOT full time equivalents [4]Finance, Insurance, and Real Estate [5]Institutions include households.
[6]Columns may not sum to total due to rounding.

Table 10. Annual economic impacts of non-resident spending by out-of-state trails visitors to the State of Wisconsin (driven by visitor expenditures as applied to statewide input-output model constructed using MicroIMPLAN — in 1997 dollars)

	Direct effects			Indirect effects			Induced effects		
Sector[1]	Output ($)	Income[2] ($)	Jobs[3]	Output ($)	Income[2] ($)	Jobs[3]	Output ($)	Income[2] ($)	Jobs[3]
Agriculture/Forestry	$ 0	0	0	$ 37,000	$ 9,000	1	$ 24,000	$ 5,000	0
Mining	0	0	0	0	0	0	0	0	0
Construction	0	0	0	121,000	72,000	2	33,000	18,000	0
Manufacturing	0	0	0	253,000	81,000	2	160,000	50,000	1
Transportation/Utilities	0	0	0	200,000	121,000	2	113,000	69,000	1
Trade	3,367,000	2,279,000	106	119,000	80,000	2	376,000	262,000	10
F.I.R.E[4]	0	0	0	242,000	174,000	3	362,000	270,000	2
Services	1,227,000	661,000	32	364,000	213,000	8	485,000	281,000	10
Government	175,000	73,000	1	44,000	24,000	1	35,000	16,000	0
Institutions[5]	118,000	0	0	0	0	0	2,000	2,000	0
Total[6]	**$ 4,886,000**	**$ 3,013,000**	**139**	**$ 1,381,000**	**$ 775,000**	**18**	**$ 1,592,000**	**$ 973,000**	**25**

[1]Aggregated to standard 1 digit SIC categories, [2]Income represents total value added which includes employee compensation, proprietors income, other property type income and indirect business taxes. [3]Total number of jobs, NOT full time equivalents [4]Finance, Insurance, and Real Estate [5]Institutions include households. [6]Columns may not sum to total due to rounding.

Table 11. Total [1] annual income and employment impacts of spending by non-local trails visitors to sub-state regions of Wisconsin (driven by visitor expenditures as applied to input-output models constructed using MicroIMPLAN—in 1997 dollars)

	Statewide		Southwest		Southeast		Northwest		Northeast	
Sector[1]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]	Income[2] ($)	Jobs[3]
Agriculture/Forestry	$ 14,000	1	$12,000	1	$ 2,000	0	$5,000	0	$3,000	0
Mining	1,000	0	0	0	0	0	0	0	0	0
Construction	90,000	2	70,000	2	16,000	0	33,000	1	24,000	1
Manufacturing	131,000	3	64,000	2	25,000	0	35,000	1	25,000	1
Transportation/Utilities	190,000	2	129,000	2	33,000	0	69,000	1	53,000	1
Trade	2,621,000	118	1,835,000	91	500,000	23	1,303,000	58	636,000	28
F.I.R.E[4]	444,000	5	217,000	2	86,000	1	116,000	1	107,000	1
Services	1,155,000	50	757,000	38	200,000	8	284,000	14	392,000	19
Government	113,000	2	76,000	2	21,000	0	43,000	1	24,000	1
Institutions[5]	2,000	0	2,000	0	0	0	1,000	0	0	0
Total[6]	**$ 4,760,000**	**182**	**$ 3,161,000**	**140**	**$ 884,000**	**34**	**$ 1,888,000**	**77**	**1,267,000**	**50**

[1]Includes direct, indirect, and induced economic impacts [2]Income represents total value added which includes employee compensation, proprietors income, other property type income and indirect business taxes. [3]Total number of jobs, NOT full time equivalents [4]Finance, Insurance, and Real Estate [5]Institutions include households.
[6]Columns may not sum to total due to rounding.

Applying non-local spending to the input-output models generated estimates of economic impact. These impacts are summarized for parks visitor impacts in tables 8 and 9. Trails visitor spending impacts are reported in tables 10 and 11. The first tables of each set (8 and 10) summarize the annual economic impacts of out-of-state visitors to Wisconsin while the second in each set (9 and 11) reports on the total economic impacts by region.

As can be seen from tables 8 and 9 (Parks) and 10 and 11 (Trails), the direct impacts of non-local parks and trails visitor spending were focused in the trade and services sectors. These were the sectors where parks and trails visitors reported spending their money. Both indirect (inter-industry) and induced (income related) impacts were more spread out through the economy. The indirect impact rippled through the economy as those sectors directly impacted purchased required goods and services. Induced impact followed general consumption patterns of local residents as aggregate income of the local population grew as a result of increased economic activity.

Total gross output change included the total industry output of all sectors related to increased parks and trail user spending. The income (and jobs) levels reported in the tables were embedded within total gross output figures, which, for ease of presentation, were only reported for the statewide analysis. The total income reported (column 2) includes what is commonly referred to as "value added." Specifically, this included a combination of employee compensation, proprietor's income (a mixture of returns to labor and capital assets), other property type income, and indirect business taxes. Employment figures were reported in total numbers of jobs by industry.

Given the expenditure levels of out-of-state visitors, a total of almost 8,000 Wisconsin jobs were supported by parks users and about 200 jobs by trails users in the year of impact assessment. This equates to over $200 million in income from out-of-state parks users and about $5 million from trails users. Again, these jobs and income levels were supported by outside dollars flowing into the State of Wisconsin by non-residents. Regional effects varied by the number and types of parks and trails present in the region and their resultant draw of non-local visitors from outside the region. Given the large number of parks and trails in the southwestern part of the state, the regional impacts were greatest in this region with about 4,500 jobs and $100 million in income resulting from out-of-region parks and trails visitors spending money on trip-related items.

The total economic impact of the State Parks and Trails System is estimated to include direct, indirect and induced impacts of almost $350 million per year.

Almost 8,000 Wisconsin jobs were supported by parks users and about 200 jobs by trails users.

Economic caveats and alternative values associated with state parks and trails

Limitations exist with this analysis and include assumptions regarding expenditure patterns, accuracy of projected non-local parks and trails visits, ability of the current business structure to accommodate increased numbers of visitors, when impacts occur, and general assumptions of input-output analysis (Miller and Blair 1985). There is, however, ample reason to believe that positive economic impacts are witnessed in the local economy as a result of new dollars flowing into the region by non-local parks and trails visitors.

Public policies that address environmental issues and provide public recreational sites have consequences to local, regional, and larger scale constituents.

For context, it is also important to point out that the estimates of economic impact previously outlined provide only the market-based effects of parks and trails use on regional business activity. Further research could more accurately specify and elaborate on the complex nature of non-market impacts resulting from the existence of the Wisconsin State Parks and Trails System. This more comprehensive study of total economic value that extends beyond regional business activity is possible and remains for future work. Such a study could more comprehensively assess the societal costs and benefits derived from the parks and trails system to residents of Wisconsin and beyond. Broader benefits that are important include less direct aspects associated with the existence of the parks and trails system. Examples of these include the role parks and trails play in maintaining ecosystem function, conservation of native habitats, and the preservation of historic and cultural artifacts. These alternative benefits have intrinsic values that can be estimated but remain beyond the scope of our assessment.

Furthermore, there is a need to delve into the nature and context of community development impacts that identify distributional consequences of change. Are tourism-type jobs and the benefits that accrue to business owners really satisfying the needs of the local community? How do these activities compare to other economic development alternatives when it comes to sustaining local household incomes and providing for local quality-of-life measures? Our assessment provides only a starting point with which to proceed in answering these critical questions that relate environmental resources to economic development.

Finally, our assessment was limited to the short-term. We made no attempt to characterize the long-term economic impacts of the state parks and trails system on either property values or tourism. Incorporating change in the type of local tourism or alternative motivations for owning adjacent properties were beyond the scope of this assessment. Certainly, the quality and quantity of environmental resources available in a local area have longer term impacts on the economic structure of surrounding communities. Public policies that address environmental issues and provide public recreational sites have consequences to local, regional, and larger scale constituents. Again, our assessment of local use value impacts only begins to address these important policy questions and consequences.

chapter 4

Summary, discussion and further research needs

Rural development planning increasingly focuses attention on recreational use of natural amenities and the tourism development brought about by increases in visitor spending. Parks and trails allow for recreational access to the natural amenity base of regions across the Lake States. Use of parks and trails attracts an increasingly large number of outside visitors who spend money in local business establishments. Furthermore, residents throughout the Lake States are regularly impacted by visitors to their locale brought about by the available amenities found within and around their communities.

The Wisconsin State Parks and Trails System provides an important driver of recreation and tourism within rural communities. It exists as a significant set of locally based natural and cultural amenities. The characteristics of visitors and the manner in which they provide local impacts provide the focus for this report. Furthermore, we focused on the system of state-owned parks and trails in relation to their surrounding communities. Specifically, we were interested in the economic and social consequences of state parks and trails within locally defined regions across Wisconsin. Results are intended to help us understand the role nature-based amenities play in rural economic vitality.

A two-year study was initiated in early 1999 to study the use of the Wisconsin State Parks and Trails System and its impacts across the state. Face-to-face and written mail surveys were combined with statewide telephone surveys throughout the study period. Results provided important information on both current recreational characteristics and perceptions of local community residents regarding trends that have been experienced over time.

Our results suggest that parks and trails visitors were, on average, well-educated. There were significant differences between parks and trails visitors with respect to occupational structure with trails visitors tending to be employed within more "white collar" professions. There were also significant differences in annual household income between parks and trails visitors. Overnight visitors to state parks were largely comprised of people who enjoyed camping. Just slightly more that one-quarter (27%) of Wisconsin residents visited parks or trails regularly.

Additional amenities including RV sewage disposal, garbage disposal and recycling, public telephones, snack shops, canoe/kayak rentals, and bicycle rentals were identified by visitors as important and appropriate for siting within parks and trails boundaries. Travel-based conveniences such as cash machines, snack shops, and recreational equipment rental were perceived by visitors to be important private concessionaires and appropriate to include within park boundaries. Opportunities exist in further development of trails and the situation of retail and service establishments relative to where the trail is positioned. A policy issue in this respect could include access by private firms to locations directly adjacent to or on state trails.

Parks and trails visitors were generally satisfied with the level of services and maintenance at the parks, although of the two, there was slightly less satisfaction with maintenance. Parks and trails visitors generally feel safe when they visit the Wisconsin State Parks and Trails System. The presence of park rangers contributed to increased perception of safety and security. While parks and trails visitors did not indicate that they were frequently disturbed by the behavior of fellow park visitors or worried about theft, there was a slightly stronger agreement that park rangers should spend more time enforcing park rules and controlling visitors that disturb others.

Parks and trails visitors recognized that the WDNR BPR does a good job conserving Wisconsin's most significant places for future generations and providing places for quiet and scenic outdoor recreational activities. Parks and trails visitors identified that WDNR BPR management priorities should continue to emphasize protection of natural ecosystems and future work should emphasize the provision of less crowded recreational conditions.

Our results suggest that the effect of the state parks and trails system on communities throughout Wisconsin is both important and complex. From an economic impact perspective, we found that while traveling, parks and trails users focused their spending on groceries, eating and drinking, and automobile-related items. In total, this spending amounted to an average of about $190 per group per trip. The level and type of spending was largely determined by group type, length of stay, and availability of local business offerings. Local park and trail user spending was key to increased local economic benefit. The economic impacts of park users were measured by focusing on new dollars flowing into the state (or local region). Results suggested that out-of-state park users injected roughly $225 million into the Wisconsin economy during the 12-month study period (1999/2000). This translated into a total impact of this injection of new dollars into the state economy of roughly $350 million annually.

Responses by users of the Wisconsin State Parks and Trails System also provided a snapshot of how they view local planning issues, including tourism's impact on local communities, broader issues associated with local economic development and local land use, safety and the presence (or absence) of local amenities. There existed a general understanding among parks and trails visitors of the importance of visitor spending to local communities. Although parks and trails users may exhibit concern about local development, they tended to view local industrial, commercial, and residential developments as a dis-amenity, particularly in relation to their recreational use.

Local civic leaders in the case study communities were generally positive about the role of the park and its visitors in contributing to local economic development. Local civic leaders were also concerned with how tourism compares with other forms of development. The potential of tourism was well-understood as a source of business receipts for owners of retail and service firms. Local residents voiced the concern that although park and trail visitors spent money locally, they also placed increased demands on locally provided services. It appeared difficult to generate support among local residents for the seasonal economic boost associated with tourism, especially given displacement of local use, the increased need for local service provi-

sion, and the perceived marginal benefits associated with visitors being present within their local community.

Amenities are characteristics of places that make them pleasurable. They often represent cultural, natural, and lifestyle characteristics of communities. As economies develop and grow, amenities become increasingly important to community residents and to the locational decisions of people and firms. As a result, long-term residents of amenity-based communities face a variety of difficult transitions including: 1) the source of economic sustenance; 2) economic dislocation; and 3) change in social and cultural values. To be sure, amenities and their users will dictate a significant portion of the rural development issues to be faced during the 21st century. This is true throughout Wisconsin and elsewhere. Transitions among alternative amenity migrant types begin with short-term destination tourism and progress to permanent in-migration.

In conclusion, the integration of parks and trails into local communities as viewed by locals varies widely. From a research perspective, continued effort needs to target a more critical understanding of rural development, *gateway communities* and amenity migration in the Lake States. The more comprehensive perspective linked with progressive local planning efforts can be key to affecting the level of locally available amenities and the impacts associated with their use. Throughout the state, the Wisconsin Parks and Trails System provides a significant amenity base that leads to important opportunities for regional tourism and its associated business growth. Incorporating this amenity base with local planning efforts can maximize the benefits to residents of Wisconsin and ameliorate any potential detrimental effects.

References

Allen, Lawrence R., Harry R. Hafer, Patrick T. Long, and Richard R. Purdue. 1993. Rural residents' attitudes toward recreation and tourism development. *Journal of Travel Research* 31, 4: 27-33.

Allen, Lawrence R., Patrick T. Long, Richard R. Perdue, and Scott Kieselbach. 1988. The impact of tourism development on residents' perceptions of community life. *Journal of Travel Research* 27, 1: 16-21.

Ap, John and John L. Crompton. 1993. Residents' strategies for responding to tourism impacts. *Journal of Travel Research* 32, 1: 47-50.

Ap, John and John L. Crompton. 1992. Residents' perceptions on tourism impacts. *Annals of Tourism Research* 19, 4: 665-690.

Ap, John. 1990. Residents' perceptions research on the social impacts of tourism. *Annals of Tourism Research* 17, 3: 610-616.

Beale, Calvin L., and Kenneth M. Johnson. 1998. The identification of recreational counties in nonmetropolitan areas of the USA. *Population Research and Policy Review* 17, 1: 37-53.

Bergstrom, John C., H. Ken Cordell, Gregory A. Ashley, and Alan E. Watson. 1990. Economic impacts of recreational spending on rural areas: A case study. *Economic Development Quarterly* 4, 1: 29-39.

Caneday, Lowell and Jeffrey Zeiger. 1991. The social, economic, and environmental costs of tourism to a gaming community as perceived by its residents. *Journal of Travel Research* 30, 2: 45-49.

Cavaye, James. 1997. *The Role of Public Agencies in Helping Rural Communities Build Social Capital*. Unpublished dissertation, University of Wisconsin-Madison.

Crotts, John C. and Stephen M. Holland. 1992. *Objective indicators of the social impact of rural tourism development in the State of Florida*. Gainesville, FL: Center for Tourism Research and Development Report. Department of Recreation, Parks and Tourism, University of Florida.

Deller, S.C., Tsung-Hsiu Tsai, D.W. Marcouiller, and D.B.K. English. 2001 in-press. The role of amenities and quality of life in rural economic growth. *American Journal of Agricultural Economics* 83(2): 352-366.

Dillman, Don. 1978. *Mail and Telephone Surveys: The Total Design Method.* New York: Wiley.

English, D.B.K., D.W. Marcouiller, and H.K. Cordell. 2000. Tourism dependence in rural America: Estimates and effects. *Society & Natural Resources* 13, 3: 185-202.

Evans, M.R. and K.S. Chon. 1989. Formulating and evaluating tourism policy using importance-performance analysis. *Hospitality Education and Research Journal* (1989):203-213.

Fletcher, J.E., R.A. Kaiser, and S. Groger. 1992. An assessment of the importance and performance of park impact fees in funding park and recreation infrastructure. *Journal of Park and Recreation Administration* 10(3): 75-87.

Getz, D. and Tazim B.J.. 1994. The environment-community symbiosis: a case for collaborative tourism planning. *The Journal of Sustainable Tourism* 2, 3: 152-173.

Goudy, Willis J. 1977. Evaluations of local attributes and community satisfaction in small towns. *Rural Sociology* 42, 3: 371-382.

Green, G.P., D.W. Marcouiller, S.C. Deller, D.K. Erkkila, and N.R. Sumathi. 1996. Local dependency, land use attitudes, and economic development: Comparisons between seasonal and permanent residents. *Rural Sociology* 61, 3: 427-445.

Hammitt, W.E., R.D. Bixler, and F.P. Noe. 1996. Going beyond importance-performance analysis to analyze the observance-influence of park impacts. *Journal of Park and Recreation Administration* 14(1):45-62.

Hollenhorst, S., D. Olson, and R. Fortney. 1992. Use of importance-performance analysis to evaluate state park cabins: the case of the West Virginia State Park System. *Journal of Park and Recreation Administration* 10(1):1-11.

Hollenhorst, S. and D. Olson. 1992. Importance-performance analysis of the recreation features of an Eastern National Forest. Paper presented at the Recreation Working Group session at the SAF National Convention, Richmond, VA, October 26-29, 1992.

Howe, J., McMahon, E., and L. Propst. 1997. *Balancing Nature and Commerce in Gateway Communities.* Washington, D.C.:Island Press.

Jordan, James William. 1980. The summer people and the natives: some effects of tourism in a Vermont vacation village. *Annals of Tourism Research* 7, 1: 34-55.

Keith, John, and Christopher Fawson. 1995. Economic development in rural Utah: Is wilderness recreation the answer? *Annals of Regional Science* 29, 3: 303-313.

Keith, John, Christopher Fawson, and Tsangyao Chang. 1996. Recreation as an economic development strategy: Some evidence from Utah. *Journal of Leisure Research* 28, 2: 96-107.

Krueger, Richard A. 1994. *Focus Groups: A Practical Guide for Applied Research*. Thousand Oaks, CA: Sage Publications.

Ladewig, Howard, and Glenn C. McCann. 1980. Community satisfaction: theory and measurement. *Rural Sociology* 45, 1: 110-131.

Lankford, Samuel V. 1994. Attitudes and perceptions toward tourism and rural regional development. *Journal of Travel Research* 32, 3: 35-43.

Lindberg, Kreg., Rebecca Johnson, and Bruce Rettig. 1994. *Attitudes, Concerns, and Priorities of Oregon Coast Residents Regarding Tourism and Economic Development*. Corvalis, OR: Oregon Sea Grant.

Machlis, G.E., D. Field, and W.H. Gardiner. (eds.). 2000. *National Parks and Rural Development*. Island Press, Washington, D.C.

Madrigal, R. 1995. Residents' perceptions and the role of government. *Annals of Tourism Research*, 22, 1:86-102.

Marcouiller, D.W. 1997. Toward integrative tourism planning in rural America. *Journal of Planning Literature* 11, 3: 337-357.

Martin, Steven R. 1995. Montanans' attitudes and behavioral intentions toward tourism: implications for sustainability. In: McCool, Steven F. and Alan E. Watson (eds.). *Linking tourism, the environment, and sustainability*. Ogden, UT: USDA Forest Service GTR-323, Intermountain Research Station, 69-76.

McCool, Steven F. and Steven R. Martin. 1994. Community attachment and attitudes toward tourism development. *Journal of Travel Research* 32, 3: 29-34.

Mengak, K.K., F.D. Dottavio, and J.T. O'Leary. 1986. Use of importance-performance analysis to evaluate a visitor center. Journal of Interpretation 11(2): 1-13.

Morgan, J. Mark. 1996. Resources, recreationists and revenues: A policy dilemma for today's state park systems. *Environmental Ethics* 18: 279-290

Morgan, David L. 1988. *Focus Groups as Qualitative Research*. Newbury Park, CA: Sage Publications.

Pfeffer, M.J. and M.B. Lapping. 1994. Farmland preservation, development rights and the theory of the growth machine: The views of planners. *Journal of Rural Studies* 10: 233-48.

Prentice, Richard. 1993. Community-driven tourism planning and residents' preferences. *Tourism Management* 14, 3: 218-227.

Probst, D.E. and D.W. Lime. 1982. How satisfying is satisfaction research? A look at where we are going. Forest and River Recreation Research Update, Miscellaneous Publication 18, University of Minnesota Agricultural Experiment Station, St. Paul, MN. Pages 124-133.

Ritchie, B. 1987. Roles of research in tourism management. In Ritchie and Goldner (eds.). *Travel, Tourism, and Hospitality Research Handbook*. New York: John Wiley and Sons.

Smith, Michal. 1989. *Behind the Glitter: The Impact of Tourism on Rural Women in the Southeast*. Lexington, KY: Southeast Women's Employment Coalition.

Spain, D. 1993. Been-here's versus come-here's: Negotiating conflicting community identities. *Journal of the American Planning Association* 59, 2: 156-171.

Stewart, David W. and Prem N. Shamdasani. 1990. *Focus Groups: Theory and Practice*. Newbury Park, CA: Sage Publications

Templeton, Jane Farley. 1987. *Focus Groups: A Guide for Marketing & Advertising Professionals.* Chicago, IL: Probus Pub. Co.

Uysal, M. and G. Howard. 1991. An application of importance-performance analysis to a ski resort: a case study in North Carolina. Unpublished manuscript, Department of Parks, Recreation, and Tourism Management, Clemson University, Clemson, SC.

Additional work related to this project

Separate extensions of this work are fully reported elsewhere. Their titles and a short abstract of each follows. Copies of these publications can be obtained from the Center for Community Economic Development (608 263-2621).

Outdoor recreationists in Wisconsin

Marcouiller, D.W., A. Anderson, and L. Hewitt. 2000. Outdoor recreation, community development, and change through time: A replicated study of canoeing and trout angling in Southwestern Wisconsin. Staff Paper 00-2, Center for Community Economic Development, UW-Extension, Madison, WI. 85 pages.

Abstract: A two-year study was initiated in late 1998 to replicate previous survey work on trout anglers and canoeists in the Kickapoo Valley Region. Specifically, both face-to-face and written mail surveys were administered to canoeists and trout anglers based on random selection criteria throughout the respective 1999 recreational seasons. To the extent possible, this replication relied on the same procedures used in the 1993/1994 studies. Results provided important information on both current recreational characteristics and trends that have been experienced over time.

Olson, Eric, D.W. Marcouiller, and J. Prey. 1999. Recreational user groups and their leisure characteristics: Analysis for the Statewide Comprehensive Outdoor Recreation Planning (SCORP) process. PR447-WDNR, Madison, WI and Staff Paper 98.4-Center for Community Economic Development, University of Wisconsin–Extension, Madison, WI. 74 pages.

Abstract: In this publication, we develop user profiles of 12 specific forest-based recreational user groups. As a part of the 1998 SCORP process, our intent with this analysis was to develop a better understanding of basic recreational demand with specific reference to the forest resources of Wisconsin. Survey data from over 1,000 forest-based recreation users was analyzed to identify patterns and issues. The method used in collecting this data is presented with a discussion of compatibility and importance-performance analysis (IPA). The data, together with the IPA, are then used to describe the characteristics of user groups including hunters, campers, snowmobilers, hikers, anglers, all terrain motor vehicle users, wildlife watchers, off-road bikers, cross-country skiers, hrseback riders, plant collectors, and pack animal users.

Recreation-based impacts on community development in Wisconsin

Marcouiller, D.W. and G.P. Green. 2000. Outdoor recreation and community development: Perspectives from the social sciences. Chapter 2 in: Machlis, G.E., D. Field, and W.H. Gardiner. (eds.) *National Parks and Rural Development*. Island Press, Washington, D.C. Pages 33-49.

Abstract: The development of outdoor recreational opportunities in rural areas provides the raw material basis for a variety of forward-linked activities in communities that create economic and social stimulus. Although not directly associated with significant local impacts, recreational use of natural resources and specific recreational sites serve as attractions that draw people into rural regions and provide important leisure opportunities for local residents. This chapter reviews the contemporary social science research literature on rural development, with a special emphasis on links to recreational use of natural resources, rural tourism and protected areas. Social and economic impacts of tourism on rural communities are discussed and placed within the various theoretical perspectives of rural development. The chapter concludes with current and future research needs that are required to better integrate recreation and tourism development into rural land use, resource management, and economic development policy.

Nevers, Liz, D. W. Marcouiller, and Susan Fox. 2000. *Devil's Lake State Park and the Baraboo Valley: A Case Study of Gateway Communities in the Midwest*. Paper presented at the 14th Conference on the Small City and Regional Community, September, 28-30, 2000; Madison, WI.

Abstract: The research reported in this paper attempts to answer several key questions that help to increase our understanding of how the presence of state parks affect local economic and social conditions. How important are parks to the vitality of local communities? Should local interests drive land use policy where public areas may warrant special protection? How well integrated are parks within local socioeconomic structures? How do locals view parks, their visitors, and the impacts parks have on local conditions? The basis for work addressed in this paper are a series of focus group interviews that addressed the socioeconomic impacts of Devils Lake State Park on the small city of Baraboo, Wisconsin and adjacent rural towns. The five focus group interviews were conducted with: 1) locally-based natural resource professionals; 2) local institutions; 3) local policy makers;

4) local retail businesses; and 5) those with private land-based interests from the area. Results suggest that important local issues include crowding, local recreational access, capture of visitor spending, and local amenity-based land use change.

Marcouiller, D.W. and T. Mace. 1999. *Forests and Regional Development: Economic Impacts of Woodland Use for Recreation and Timber in Wisconsin*. Monograph G3694, Board of Regents of the University of Wisconsin System, Madison, WI. 43 pages.

Abstract: The objective of this research was to quantify the regional economic impacts of forest land use for recreation and timber by land ownership in sub-state regions of Wisconsin. Regional economic impact included quantification of value added impacts and was accomplished through input-output analysis made available using the MicroIMPLAN data and software. This research followed a three-phase design that included: 1) a recreational use survey; 2) analysis of 1996 timber inventory data; and 3) regional economic modeling using input-output analysis. Descriptive results are summarized and policy implications are discussed.

Recreational amenities and rural economic growth

Deller, S.C., Tsung-Hsiu Tsai, D.W. Marcouiller, and D.B.K. English. 2001. The role of amenities and quality of life in rural economic growth. *American Journal of Agricultural Economics* 83(2): 352-366.

Abstract: A structural model of regional economic growth is estimated using data for 2243 rural U.S. counties. Five indices designed to capture specific amenity and quality of life characteristics are constructed using 54 separate indicators. Results suggest that amenity characteristics can be organized into consistent and meaningful empirical measures that move beyond ad hoc descriptions of amenities. In addition to insights into the influence of local characteristics ranging from tax burdens to income distribution on regional economic growth, results suggest that predictable relationships between amenities, quality of life, and local economic performance exist.

English, D.B.K., D.W. Marcouiller, and H.K. Cordell. 2000. Linking local amenities with rural tourism incidence: Estimates and effects. *Society and Natural Resources* 13, 1: 185-202.

Abstract: Recreation and tourism development continue to play an important role in reshaping rural America. Efforts to evaluate the effects of such development are complicated because residents and non-recreation visitors also use the businesses that are affected by recreation and tourism visitors. We present a method for estimating jobs and income in nonmetropolitan counties that are generated by recreation and tourism visitors from outside the county. Several different techniques are used to (1) cluster similar counties, (2) account for the portion of tourism sector employment that serves local residents, and (3) account for the portion of export activity that serves non-recreation visitors. Finally, we address the consequences of recreation dependence in rural counties. The counties most dependent on nonlocal tourism activity are compared to other rural counties on income, population, economic structure and housing variables.

Marcouiller, David W. 1998. Environmental resources as latent primary factors of production in tourism: The case of forest-based commercial recreation. *Tourism Economics* 4, 2: 131-145.

Abstract: The market supply of tourism, in many respects, remains an unresolved area of theoretical and empirical development. The reasons for this are many, but in this paper it is argued that one of the limiting core areas of conceptual development in tourism economics is the general need for an analytical framework that captures generic production processes used to produce output from the tourism sector. One important unresolved issue of production includes use of critical resources such as environmental goods that serve as latent primary factor inputs to the production process of tourism. Often, these resources are hidden from analysis due to their non-priced common-pool attributes. This is particularly true in rural amenity-rich regions where nature-based tourism firms are becoming increasingly important to regional economies. Using forest resources as an example, the incorporation of non-priced tourism production inputs more completely specifies the tourism production function, provides a critical linkage to land and recreation resource management, and allows for more integrative tourism planning approaches.

appendix a

Focus group summaries

A series of 12 focus group interviews were conducted between late 1999 and mid-2000 in the three case study communities. The common issues discussed at these focus group interviews included:

- What are the relevant social, economic, and environmental development trends in the (Baraboo/Mellen/Wittenberg) area?
- What is the relationship of (Devil's Lake State Park/Copper Falls State Park/Mountain-bay WIOWASH State Trail) to community development taking place in Baraboo?
- How does the (Baraboo/Mellen/Wittenberg) area serve as a "gateway" community to the park/trail?
- What is the role of (Devil's Lake State Park/Copper Falls State Park/Mountain- bay WIOWASH State Trail) in providing broader societal benefits (the park or trail as a provider of "public" goods that may generate non-local benefits).
- What are some relevant "costs" or pressures placed on organization or public services in (Baraboo/Mellen/Wittenberg) that stem from recreational development

In addition to these topical points, specific issues unique to each group were discussed. The results from the focus groups are now discussed.

Content analysis of focus groups conducted for the Baraboo Case Study

Baraboo is a small city of approximately 10,000 people located in South Central Wisconsin. It is located just outside of the main entrance to Devil's Lake State Park which. This visitation level at Devil's Lake State Park is among the highest level experienced in any individual property of the Wisconsin State Parks and Trails system.

The Baraboo Case Study involved a series of five focus group interviews conducted between October, 1999 and May, 2000. These separate interviews were conducted with five specific groups as identified by a local steering committee organized by the local UWEX agent. This committee included representatives from Devil's Lake State Park, the City of Baraboo, Sauk County, the Baraboo Chamber of Commerce and the local economic development agency. These five separate groups included (1) natural resource professionals, (2) local institutions, (3) local policy-makers, (4) local business interests, and (5) local land interests. Each group discussed both a common set of issues and issues specific to the group.

The following describes major findings from the focus group sessions. The basis for analyzing each of the focus group interviews was developed from main themes identified using personal notes, typed manuscripts and reviews of each audio tape.

The Baraboo area as a "gateway" community to Devil's Lake State Park:

> *"I can see how Baraboo has grown ... not so much in population, but in quality development with an eye toward the state park. However, I think there could be more focus and comparison (between our experience in Baraboo) and some of the things that have happened in other (gateway) communities around the country."*
>
> *"Baraboo really is the gateway community to the park. I kind of like having a name for it now, because I think it's something we've talked about for 20 years, about ... where's the recognition from the city of Baraboo for the importance of Devil's Lake Park ... and the road in-between (Baraboo* and the State Park)?"

But, on the other hand, some pointed to the lack of incorporation within local development efforts:

> *"I think maybe the whole area could be seen as a recreational area, but I don't necessarily think that Baraboo itself as being a gateway community to the park."*
>
> *"It's odd that (Devil's Lake) is the most popular state park in the state and yet the city of Baraboo doesn't seem to embrace it very much."*
>
> *"… it's just surprising to me that there hasn't been some recognition of the potential of making the connection and marketing Baraboo as* the gateway community."

Still others recognized the potential for further work:

> *"(the Gateway community concept can build on) the wealth of cultural resources that are here … it's sort of like a symbiotic relationship where we're combining the natural and the cultural features."*
>
> *"… the issue of whether the city sees itself as a gateway … there is some evidence that (people are beginning to incorporate the concept) …. one of them is the new logo that the city has adopted … all the street signs that point to the library and city hall, and all those other things — they've stolen the symbol of Devil's Lake State Park, which is some rock formation out at the park … they've acknowledged that they have a strong link with the park, and are … using that as a link to the way people perceive Baraboo. There are some people recognizing … the link (to the Park) or the gateway."*

On the relationship of Devil's Lake State Park to community development taking place in Baraboo:

> *"For the most part, … everyone (in a recent survey) was saying that there was a very positive relationship between the State Park and their business."*
>
> *"I feel that, at least for social development, it's been really good. At Devil's Lake, … every time I go out there, I usually run into somebody I know from the community out for a hike, or doing photography, or whatever. So, in some (circles, Devil's Lake is) a meeting place."*

On the carrying capacity of recreational use in the Baraboo area:

> *"I think there's more of a perception of over-crowdedness during the three main summer months than there is reality. I mean, Baraboo is nothing like the Dells at any time of the year."*
>
> *"… there's strong development pressure in the region … the park is a contributing (factor) to that because (it represents) one reason people come to this area."*
>
> *"One of the secondary impacts of all of the people here as a result of Devil's Lake and other resources is a visual impact. Because there are so many people (in the area), it's ripe for billboard advertising. I see that becoming more and more prominent. For me, … , it's really detracting from the visual quality of this area."*
>
> *"… as a land manager adjacent to Devil's Lake, I'm very concerned about overflow. (One question is that when) some of those 1.5 million (visitors per year) start coming onto our property (adjacent private lands), what does that mean? How do we prepare? One ecological issue that always comes up is that people are good vectors for transmission of non-native vegetation … right now, (its) garlic mustard."*

Content analysis of focus groups conducted for the Mellen case study

Mellen is a small rural community of approximately 900 people located in Northern Wisconsin. It is located roughly 3 miles from the entrance to Copper Falls State Park. This visitation level was ranked in the middle of all state park properties.

A series of four focus group interviews was conducted in Mellen, Wisconsin (population 900) on May 3–4, 2000. These four focus groups included: 1) local government officials; 2) local business leaders; 3) the wood products industry; and 4) general citizens. Topics discussed were similar to the issues identified in the previous case study.

Use of the park by locals:

"We used to do a lot of socializing out at the park … today, we don't do that sort of stuff anymore. Now the park charges an entry fee … locals won't pay the entry fee. Its not our park anymore."

"In the early 40's and 50's everyone went to Copper Falls for picnics. As far as I am concerned, the park has gone downhill… locals don't use the park much anymore."

"Copper Falls itself is nothing … its not really viewed as a part of life in Mellen."

One problem is the general lack of retail and service sector businesses in Mellen for visitors to frequent. A city council member summed this up nicely:

"What are they (tourists) gonna do in Mellen? They can go to the laundromat and wash clothes but they can't get a cup of coffee if its Monday (because the only restaurant in town is closed on Mondays)."

"People like the area, but there's no place to stay."

"Campers (at the park) don't spend a lot of money … they bring most of the stuff they need with them."

"We don't have anything here to draw visitors into town."

Another problem is the lack of effective marketing to draw people into town:

"We hope that the park would do a better marketing job … but it's not just their problem; we do a very poor job ourselves marketing the town."

"(The park) is Wisconsin's best kept secret … better marketing would be good and possible."

"I don't think Mellen markets itself very well at all."

On the role of tourism as a development strategy:

"We don't have a place for tourism … the impact is so low that … it really has no impact."

"No one makes a dime in this town from tourism."

"We don't have a strip of shops and taverns like some small towns; when somebody comes from the park, what are they going to do?" "We're not Bayfield, we don't have the lakes around here like Minocqua and Hayward."

"Hunters and fishers spend more up here than the park visitors…then there's snowmobilers…our biggest season is Labor Day through March, by far." "Campers don't bring a lot of money, they bring everything with them." "If we had lodging, we could get more business." "Snowmobiles are big, big business…some of them want to get into the park for the scenery…they're not all partiers and drinkers either…people wonder why they can't go into the park, but they just don't allow it."

"Personally, I would hate to see this area become too tourism dependent."

On the community's ability to draw in more tourism dollars:

"We don't have anything that the park visitors want."

"We have to do a better job of marketing ourselves."

"You can spend more for signs and marketing, but if there's nothing to do when you get here it won't matter."

On the attraction for people moving to the area and building houses:

"A lot of the people moving here are coming back from elsewhere, and the park is part of their history."

"The DNR…has changed the way people get to Copper Falls or anything…now you gotta pay to see Old Baldy, well that pissed a lot of people off. I gotta pay $2 to see Old Baldy, Christ I've been up there 100 times for nothing…Up here, people appreciate their freedom a lot more…Copper Falls is ours."

On the tension between locals and people from outside:

"Things are being taken away from us." "We never see them, or we only see a small portion of them." "The casinos have changed everything worse for everybody, not just the restaurants and taverns, but everything."

"Too many people. I like it as it is, maybe a few more people."

"When they redid the showers and the campground improvements, they have increased the number of campers. They're pretty booked all summer." "When they need things, they go to Ashland or the casino."

On protection of the ecosystem:

"What else would people do with the river?" "I would rather have it stay as a park…you can see it in its natural beauty…it's managed real well with the campsites laid out as they are." "I don't understand why they keep buying more land." "I wonder why they do that?" "So you can't hunt!" "We're losing some tax base…(PILT) is peanuts compared to if it were developed as a private home or even a 40-acre parcel."

On public services required by visitors:

"Everything we got is at their service if they need it." "Garbage." "When I hear you say Copper Falls I hear 'DNR', maybe that's my problem." "We're up here struggling, but the DNR isn't giving back."

"Build us something. Build us a library, build us a swimming pool, build us something; give us something. Show us that we're partners." "The DNR runs Copper Falls, you can't go fishing down there, you can't have beer down there."

On the park staff:

"He (the Park Superintendent) runs a good park and he's an asset to the community. He's very much involved in everything around here…that's one way that the park does give back maybe." "When (the Park Superintendent) retires, you wonder how they're gonna replace him."

On local input into the parks planning process:

"We don't have any say…"

"I don't know if (the Park Superintendent) could do anything (if the DNR would let him)." "There's no concerted effort for the city and the park to cooperate."

"I think it's a good thing…you know, keep the communication lines open."

"I don't think there has been a lot of effort on their part." "We got a mayor that's a second or third generation Mellonite, um…he puts on a good show for some things. Inside, he don't want any change, and he is going to manage to find a way to manipulate the people to keep and get what he wants…at the same time, city government has held Mellon back."

"(the Park Superintendent) has been there for twenty years, and he's going to do what he has to do out there and there's not a lot city government can do to help him. The park doesn't need the city's help; city government, business owners, we could use the help, and the only ways it's going to happen is if we get together like this or through the chamber…but even the chamber, what have they done in the last ten or twenty years?"

"We give him brochures and (the Parks Superintendent) keeps them beneath the counter and gives them to people who are serious."

"You gotta ask him. I give him a sign for the concession stand…and if people ask the people working out there, they're tell them about the Laundromat."

"As far as marketing, I don't think the DNR does much marketing of parks. When we started the Chamber of Commerce, (the Park Superintendent) paid the dues out of his own checkbook because the DNR didn't believe in belonging to Chambers."

On Mellen as a gateway to the park:

"Not only for summer, but also for winter with the snowmobiling." "Year-round is definitely there…you talk to them on the street, the snowmobilers, as much as the summer visitors." "I think if it was advertised and went in the right directions, there's no reason why we couldn't make a damn nice gateway community out of it; it's just something I never thought about." (speaking of recreational opportunities):"I don't care where you live, the locals never do it…they take it for granted…it's a person's nature."

"My feeling and what I get from (my employees) is that it is a gateway for people outside the community, and a lot of our people have not even been there…and you ask them why, and they say 'I don't want to pay $12 a year' or 'I don't want to pay $2 a day for our company picnic'"
"Snowmobiling used to be a big thing, and there were alcohol concessions in the park, but they discontinued the access and Mellen fell off of the snowmobile trail."

"When I moved here, we hiked Copper Falls two or three times a year…and now we are finding more and more places to explore; there's so much land…that you just don't find yourself going back to the park because there's so much public land around."
"We don't have the infrastructure to hold people who go the park…so people don't stay in the area…it's a one-day or a half-day stop for people."

"The expansion of the park doesn't sit well with the older people." "Because it will never be used and it is taken away from the public." "As you keep expanding the park and taking that away from other people that could be paying taxes, it just hurts our school system and everything else, taking it off the tax rolls and everything else."

On development trends in Mellen:

"There haven't been many businesses opening for a long time…there would be a big opportunity if the Mellen-Hurley trail were to be opened." "East and west is saturated (with snowmobilers)…we do O.K." "If Hayward doesn't have snow, then Hurley gets mentioned…they go right over us. We don't see things happening until the second week of January." "What are we doing to make sure this stuff (snow levels) are being reported to the right people."

"This is an older community, age-wise, a lot of people don't like to see change…they don't want to see anything different." "The wages aren't very attractive."

"A lot of people come from out of town to work." "What would happen if the mill shut down?" "They want to leave it the way it is…it's nice, it's quiet…they're seeing the changes elsewhere and they don't like it…if we as business owners want change, we will need a plan for convincing them

that we can do it without destroying what we have. There's enough here, all we need to do is let people know that it's available."

"Most people are in-and-out; I can't think of how tourism could lead to an increase in crime."

"The people come up from the cities, they have the money and they buy property and the taxes go up, and soon they can't afford their own place." "Locals think, 'Here comes people from Illinois and Minnesota with their money to burn', and you're not going to worry about changing that issue."

"Last summer I went through more boxes of detergent from Labor Day to Memorial Day than I do all year, and I got complaints from the local people who couldn't get in to dry their own clothes!"

Community benefits of the park:

"There are some people that haven't set foot in there since they started to charge an admission fee…they won't even go in" The park is well maintained, it's beautiful."

"(other) People relate to the park better than Mellen."

"The mascot is a granite digger." "people take it for granted…it's here, it exists."

On local land use change:

"There's some…in the last ten years we've seen eight or ten new roads. The golf course has lots out there, I don't know if they've sold."

"When we bought the resort, five years ago, it was in really bad shape. They probably had about five families coming to this place, and, um, to rebuild a business like that, to invest the money to fix up the place, and, um, everything overall, if Copper Falls wasn't there I couldn't be doing that, because we had so much against us, with business being down, nobody was coming there anymore, so to put all of that in, there had to be something else to build on…there was pros and cons to the place but Copper Falls made a difference, because I felt that we could build a business with Copper Falls on the camping, the overflow that would make a difference."

"Tourist trade really is important, even in a small town like this, you know. Because in a small town like this, someone gets a bug up their butt, well, I mean, you know, and for us because we're a different type of business, just like, you know, we don't do our business on locals. We may get referrals…but ours is not based on here."

"Mine is just the opposite, the majority of my business is locals, except in the summer then I'm gonna get a big kick."

On inflationary land prices and tax bases:

"I don't think that there's anywhere near a trade-off." "It's a fickle business; it's up and down." "I don't think we get a lot of spill-back from the park."

Content analysis of focus groups conducted for the Wittenberg case study

The Wittenberg area (including Birnamwood, Eland, and other nearby communities) represents a small rural community in North Central Wisconsin. This area represents a crossroads to the Mountain Bay/WIOWASH trail system. This system was recently opened to the trail riding public as a state trail but is managed locally by the counties of Shawano and Marathon.

Three focus groups were conducted in Wittenberg, Wisconsin (population 1,200) on June 28th and 29th, 2000. These included groups comprised of (1) local business owners, (2) local civic leaders, and (3) local land interests/resource managers. People were invited from the region adjacent to the Mountain Bay/WIOWASH trail system in Eastern Shawano and Western Marathon Counties, a rural area located in North Central Wisconsin.

General results included the following statements broken down into major categories.

On the town itself:

"We've been struggling as of late … our need for providing services is up but the tax base doesn't keep up."

"… worried about the future … we've been having declining enrollments in our school."

"Business in town is pretty hard … just not enough business."

"Tourism is a plus … we like the influx in business the trail and other tourism stuff brings in. On the other hand … we may not like it if tourism got too big."

"It'll take time (the trail's draw of tourism) …. maybe at this point it will benefit us in ways we can't see."

On the trail itself:

"I've noticed that snowmobilers are pretty happy with the trail …."

"I've been trying to keep track of trail usage … frankly, the numbers aren't that great. On a high day it might be 30, on a real hot day we don't see anybody."

"I don't get much trail traffic through my campground … no signage to tell people where to go."

"At this point there's not enough use to generate the dollars needed to increase local business activity … kind of a what came first … chicken or egg thing."

On the people using the trail:

"We have quite a few permanent campers … the snowmobile trails go through our campground and some people stay here while snowmobiling."

On use of the trail for ATVs:

"The way it is now, it would be good … yeah because its hikers and bicyclists and horseback riders. If you open it up to 4 wheelers and dirt bikes, then you would be getting more people upset."

"From a business standpoint, the trail would get used a lot more (if opened to ATVs) because those 4-wheelers go all over and a lot of people can enjoy it … but you'd see more opposition from the public."

"What bothers me is the liability if the 4-wheelers hit somebody. And what about the bikers? I don't know if it would be very compatible. A lot of the trails go across hay fields and places where there are crops. In the winter time its frozen and if the motorbikes and 4-wheelers came in, a lot of farmers would think twice about letting people use the trail."

On trails passing through private lands:

"The clubs ask for permission to let trails come through, but as long as there's no damage to the land or crops, then its ok."

"There was one guy who opposed (the North WIOWASH extension); the guy's my cousin. He donated the land where they put the snowmobile building on, because it's right behind his business but in this land that he has up there, its like his sanctuary and he just doesn't want people coming through there. For some reason and I don't know. He's not a hard-nosed guy."

"I think too long of a time elapsed between railroad abandonment and planning for it as a recreational trail. So when the rails were abandoned in the early '80s, the rails were taken up and people along the trail just began to be accustomed to having access to that land and thought that they owned that land, even if they didn't."

On crime from the trail:

"There have not been many instances, and with the snowmobiles, the equipment is expensive and the types of people who have them are not going to cause problems."

On the DNR acquisition and management of trails land:

"The (driving) clientele (for acquisition) is usually from elsewhere, sometimes out of Wausau, some people want to do sections at a time. There are also people from MN or Reedsburg but the numbers aren't great.

"The lag time between abandonment of the rail line and the development of the trail was too long."

"State ownership is a necessity … I just wish they would spend more time planning for the trail here. Our county is responsible for its upkeep but there's so much more that could be done."

On local use of the trail:

"I'd say, its pretty much like if you got a museum in your town, you know, when's the last time you've been there? You don't go much; it's always people from out-of-town who go and you think … oh yeah, we got that museum, and I sort of know what's there and it probably hasn't changed too much since I was there the last time … but people come from out-of-town all the time, but local people do short little jaunts … very little local use of the trail."

"They (locals) are just out for fun, short little rides. Several people found out that the section from Hatland to Eland was one of the prettiest … they went on the Net and found that."

"This trail here, it's a real asset to the community, but we don't really use it all that much ourselves."

On local business starts resulting from the trail:

"Yes, the two trails, the Mountain-bay and WIOWASH connect in Eland. And I thought I would give it (a bicycle shop) a try and I am up there every weekend trying to figure out what people want … ice cream is a popular idea and I don't sell it yet, so I am looking into to things like that that will allow me to generate more business out of the few people that do come by on the trail.

"I looked at maps. I talked with the DNR trail coordinator and found out that the Eland depot might be available and I had seen the businesses on the Elroy-Sparta trail so I wanted to get my foot in the door."

"I think that kind of working together is something I'm certainly willing to do … one way to do it is to drop brochures off at your shop."

appendix b

Survey instruments used in the mail survey

THE WISCONSIN

State Parks Visitor Survey

University of Wisconsin - Madison / Extension

I. Your Recent Wisconsin State Trail Visit

1. How recently, if ever, have you visited a Wisconsin state trail? *(Check one box.)*

- ☐ Within the past month
- ☐ Between 2 and 11 months ago
- ☐ Between 1 and 5 years ago
- ☐ More than 5 years ago
- ☐ Never

2. Please answer the following questions about your most recent Wisconsin state trail visit:

What was the date(s) of your visit? month/day:_____/_____ to month/day:_____/_____

What was the name of the state trail(s)? _____

How many adults (over age 18) and children were with your group? _____ adults _____ children

3. How many times in the past year have you visited a Wisconsin state trail? *(Check one box.)*

☐ only once ☐ two or three times ☐ four to ten times ☐ more than 10 times

4. Did you purchase an annual trail pass this year?

☐ Yes ☐ No

5. Please indicate the form of lodging you used during your most recent state trail visit: *(Check all that apply.)*

- ☐ Not an overnight trip
- ☐ Camped at a nearby campground
- ☐ Camped at a state park campground
- ☐ Stayed at home of friends or relatives
- ☐ Stayed in a hotel, motel, resort or bed and breakfast
- ☐ Camped at a federal, state forest, county or municipal campground

6. If you camped, please indicate the type of camping you did *(Check all that apply)*:

- ☐ Recreation Vehicle
- ☐ Pop-up camper
- ☐ Tent
- ☐ Other; describe: _____
- ☐ Truck or van camper

7. If you camped, how much did you pay in camping fees for this trip? $ _____

II. Spending During Your Recent Wisconsin State Trail Visit

Think of your most recent trip to a Wisconsin state trail. Using the list below, indicate the amount of money ***your group*** spent as part of this trip. This can include money spent traveling to and from the trail as well as money spent along the trail itself.

- groceries and liquor $ _____
- restaurants and bars $ _____
- casinos/ gambling $ _____
- gasoline and auto service $ _____
- lodging at hotels, motels or resorts $ _____
- recreational equipment purchases $ _____
- recreational equipment rental $ _____
- gifts, toys and souvenirs $ _____
- bait and tackle $ _____
- entrance fees for museums or amusement parks $ _____
- recreational licenses $ _____

III. The Importance of Wisconsin State Trails During Your Recent Trip

From the list below, please check the box next to the statement that *best* describes how you decided to visit a Wisconsin state trail on your most recent trip (check one box).

- ☐ I had not planned on visiting a state trail on this recent trip, but decided to go once I learned that there was a trail in the area.
- ☐ I planned on visiting a state trail on this recent trip, but it was only one part of my recreation plans.
- ☐ The only reason I took this recent trip was to visit a Wisconsin state trail.

IV. Participation in Outdoor Recreation During Your Recent Visit

Which of the following activities did you personally do at the State trail on your most recent visit and which, if any, were done by other adults or children in your group? Check the appropriate boxes.

	I personally participated	*other adults participated*	*children in our group participated*
attend a naturalist lecture	☐	☐	☐
biking	☐	☐	☐
off-road mountain biking	☐	☐	☐
guided nature walk with trail staff	☐	☐	☐
horseback riding	☐	☐	☐
hiking	☐	☐	☐
in-line skating	☐	☐	☐
wildlife viewing	☐	☐	☐
running / jogging	☐	☐	☐
picnicking	☐	☐	☐
other (describe) _____	☐	☐	☐

V. Your Overall Recreation Habits

During the past month, how many **days** did you partake in the following outdoor recreational activities, both at state parks and elsewhere? Write the **number of days** next to each activity.

____ camping	____ hunting	____ boating
____ road biking	____ horseback riding	____ canoeing
____ hiking	____ wildlife viewing	____ picnicking
____ off-road ATV	____ in-line skating	____ fishing
____ swimming	____ naturalist program	____ pleasure driving

____ off-road mountain biking ____other: _____

VI. Reasons for Visiting State Parks and Trails

There are many reasons for visiting Wisconsin state trails. For each of the reasons below, please answer two questions. First, how important was the reason when you decided to visit a Wisconsin state park? Second, how satisfied were you with the park's ability to provide what you were looking for? (Place an "x" in the corresponding box.)

	Level of Importance					Level of Satisfaction				
Reasons for visiting Wisconsin state parks:	very important		neutral		not important	very satisfied		neutral		not satisfied
to find a place for quiet recreational activities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
to learn about nature, history and culture	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
to enjoy a wide range of outdoor recreation activities	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
to be with my friends and family in a scenic, outdoor setting	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
to escape from crowds and enjoy solitude	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VII. Other Reasons for Having State Parks and Trails

Wisconsin state parks and trails are also important natural resources. Please read the following reasons for having state parks and indicate (1) how important you feel each reason is, and (2) how satisfied you are with park system's performance of that function. (Place an "x" in the corresponding box.)

	Level of Importance					Level of Satisfaction				
Reasons for having Wisconsin state parks and trails:	very important		neutral		not important	very satisfied		neutral		not satisfied
to preserve Wisconsin's most significant places for future generations.	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
to conserve natural areas for research and scientific study	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
protect natural ecosystems	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

VIII. Overall Trail Satisfaction

Overall, how would you rate your most recent Wisconsin state trail visit? *(Place an "x" in the corresponding box.)*

☐ Excellent ☐ Good ☐ Average ☐ Poor ☐ Very Poor

IX. Conveniences and State Parks and Trails

Some people enjoy conveniences when recreating outdoors. Some conveniences may best be provided in local communities outside state parks and trail properties, and some by vendors or by the state within the boundaries of the park or at a trail head. Please identify how important each convenience item below is to you when you travel to a state trail. Also indicate whether you feel it is appropriate to provide this convenience within the trail boundaries. *(Place an "x" in the corresponding boxes.)*

	Level of Importance					Is this an appropriate convenience to be found within state trails?	
convenience items	very important		neutral		not important	yes	no
gas stations	☐	☐	☐	☐	☐	☐	☐
tavern	☐	☐	☐	☐	☐	☐	☐
restaurant	☐	☐	☐	☐	☐	☐	☐
bicycle rental	☐	☐	☐	☐	☐	☐	☐
canoe/ kayak rental	☐	☐	☐	☐	☐	☐	☐
cash (automatic teller) machine	☐	☐	☐	☐	☐	☐	☐
RV sewage disposal	☐	☐	☐	☐	☐	☐	☐
grocery store	☐	☐	☐	☐	☐	☐	☐
post office	☐	☐	☐	☐	☐	☐	☐
year-round indoor lodging	☐	☐	☐	☐	☐	☐	☐
garbage disposal and recycling	☐	☐	☐	☐	☐	☐	☐
snack shop	☐	☐	☐	☐	☐	☐	☐
public telephone	☐	☐	☐	☐	☐	☐	☐
other (describe)_____	☐	☐	☐	☐	☐	☐	☐

X. Major Recreation Equipment Spending

Review the list of recreation equipment items and place a check in the box next to any item that your household has purchased in the last 12 months. For those items you checked, please estimate the price you paid and enter the dollar amount in the space provided.

Item	*purchased in last 12 months*	*estimated price*
camper(s) (trailer, RV, truck or other)	☐	$ _____
motorized recreation equipment (motorboats, ATVs, etc.)	☐	$ _____
non-motorized recreation equipment (bicycles, canoes, etc.)	☐	$ _____
tent(s)and other camping gear	☐	$ _____
other (describe) _____	☐	$ _____

XI. Safety and Security in Wisconsin State Parks and Trails

The following statements are related to safety, security and law enforcement in Wisconsin state parks and trails. Please indicate your level of agreement by marking the appropriate box.

	Level of Agreement				
	strongly agree		neutral		strongly disagree
When visiting a Wisconsin state trail, I am worried that my belongings may be stolen.	☐	☐	☐	☐	☐
Wildlife such as bears and raccoons are my biggest safety concern at Wisconsin state trails.	☐	☐	☐	☐	☐
Seeing a ranger patrolling the trail makes me feel that Wisconsin state trails are safe.	☐	☐	☐	☐	☐
I feel safe visiting a Wisconsin state trail while hunting is taking place along the trail.	☐	☐	☐	☐	☐
I am often disturbed by the behavior of other visitors when I am at a Wisconsin state trail.	☐	☐	☐	☐	☐
Park rangers should spend more time enforcing trail rules andcontrolling visitors that disturb others.	☐	☐	☐	☐	☐
I always feel safe while I am visiting a Wisconsin state trail.	☐	☐	☐	☐	☐

XII. Funding for Wisconsin State Parks and Trails

Wisconsin state parks and trails are currently funded in part from fees charged at the properties (60%) and in part from general state revenue (40%). If the state were to increase services or maintenance at Wisconsin state parks and trails, it would need to increase state revenue or increase the fees charged at the properties. Please indicate your opinions on park funding by checking the appropriate response to the statements below.

	Level of Agreement				
	strongly agree		neutral		strongly disagree
I am satisfied with the current level of ***services*** at Wisconsin state trails and see no need for increased funding for ***services***.	☐	☐	☐	☐	☐
I am satisfied with the level of ***maintenance*** at Wisconsin state trails and see no need for increased funding for ***maintenance***.	☐	☐	☐	☐	☐
Increases in the parks and trails budget should come from the state's general revenue tax money.	☐	☐	☐	☐	☐
Increases in the parks and trails budget should come from higher campsite fees.	☐	☐	☐	☐	☐
Increases in the parks and trails budget should come from higher trail fees from both in-state *and* out-of-state visitors.	☐	☐	☐	☐	☐
Increases in the parks budget should come from higher trail fees for *out-of-state visitors only*.	☐	☐	☐	☐	☐
Trail fees should be higher at popular trails such as Elroy Sparta or Chippewa River.	☐	☐	☐	☐	☐
Senior citizens should pay the same trail fee rates as other Wisconsin state trail visitors.	☐	☐	☐	☐	☐

XIII. Your Views on Development Near State Parks and Trails

Economic development sometimes takes place in the area adjacent to Wisconsin state parks and trails. This development provides employment to local communities and also may provide services to park and trail visitors. Please indicate your level of agreement to the following statements by placing an "x" in the appropriate box.

	Level of Agreement				
	strongly agree		neutral		strongly disagree
Stores and commercial development should be encouraged in the area immediately adjacent to a Wisconsin state trail.	☐	☐	☐	☐	☐
Commercial development near state trails should occur within the existing boundaries of nearby cities and villages.	☐	☐	☐	☐	☐
Industrial development and manufacturing plants should be encouraged in the area immediately adjacent to a state trail.	☐	☐	☐	☐	☐
Development in rural Wisconsin should be discouraged so that open space can be protected.	☐	☐	☐	☐	☐
Agricultural development and farms should be encouraged in the area immediately adjacent to a Wisconsin state trail.	☐	☐	☐	☐	☐
Dense housing developments should be prohibited in the area immediately adjacent to a state trail.	☐	☐	☐	☐	☐
Spending by Wisconsin state trail visitors creates jobs and development near trails that otherwise would not exist.	☐	☐	☐	☐	☐
Private campgrounds and recreational development should be encouraged in the areas immediately adjacent to a state trail.	☐	☐	☐	☐	☐
Development decisions near state trails are statewide issues that all Wisconsin residents should be involved in.	☐	☐	☐	☐	☐
Government should help attract businesses and development in communities near Wisconsin state trails.	☐	☐	☐	☐	☐

XIV. Tell Us About Yourself

Please answer the following demographic questions. This information is used to compare your responses with those of other park visitors. All responses will be kept in the strictest confidence.

1. What is your age? _____ years old

2. What is your sex?

☐ male ☐ female

3. Marital Status *(check one)*:

☐ single, never married ☐ married
☐ divorced ☐ separated
☐ widowed ☐ other

4. How many children under age 18 do you have living at home? _____

5. Which of the following best represents your race or ethnic background?

☐ White, not of Hispanic origin ☐ Asian or Pacific Islander
☐ American Indian; Alaskan Native ☐ Hispanic
☐ Black; not of Hispanic origin ☐ other: _____

6. What is the highest level of schooling you have completed?

☐ 8th Grade or less ☐ Some graduate school
☐ 9-11th Grade ☐ Other- business or trade school , associate degree
☐ high school graduate or equivalent ☐ Masters degree (MA, MS, MBA, MEd, etc.)
☐ some college ☐ Professional or Doctorate degree (MD, JD, PhD, .)
☐ Bachelor's degree (BA, AB, BS)

7. Employment Status:

☐ homemaker ☐ retired, not working ☐ unemployed
☐ employed full time ☐ retired, working part time ☐ student, not working
☐ employed part time ☐ retired, working full time ☐ student, working part time

8. If employed, what do you do for a living?

☐ Managerial/Professional (managers, engineers, scientists, nursing, teachers, etc.)
☐ Technical/Sales/Administration (programmers, sales, clerical, pilots, clerks, tellers, etc.)
☐ Public Service (police, fire, government)
☐ Agriculture (farming, fishery, forestry, produce, etc.)
☐ Production/ Craft/ Repair (mechanics, construction, plant operations, plumbing, repair, etc.)
☐ Operator/ Fabricator/ Laborer (equipment operators, drivers, welders, inspectors, helpers, etc.)
☐ Other- describe:_____

9. What was your 1998 before tax ***household*** income?

☐ Less than $15,000 ☐ $50,000 - $69,999 ☐ $150,000 - $199,999
☐ $15,000 - $29,999 ☐ $70,000 - $99,999 ☐ $200,000 - $249,999
☐ $30,000 - $49,999 ☐ $100,000 - $149,999 ☐ $250,000 or more

10. Estimate the value of your ***household*** investments (real estate, home, savings, stocks, bonds,IRA, etc.)

☐ less than $50,000 ☐ $150,000 - $249,999 ☐ $350,000 - $449,000
☐ $50,000 - $149,999 ☐ $250,000 - $349,999 ☐ more than $450,000

Thank you for assisting us in this research effort!

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