

# National Outdoor Recreation Assessments

By Carter J. Betz



National assessments of outdoor recreation are a relatively new phenomenon in the United States, at least when compared to our country's history. The first systematic national examination of outdoor recreation — the current situation, resources, demands, and future prospects — did not occur until the late 1950s. The Outdoor Recreation Resources Review Commission (ORRRC) was established in 1958 in response to a variety of outdoor recreation problems and concerns that had mushroomed during the postwar years. National recreation assessments have continued, though

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sporadically and never again on such a grand scale, since the ORRRC released its 1962 report "Outdoor Recreation For America."

This edition of "Research Update" is a bit different from the usual column, which reviews current research by a number of scientists and field academics. In this case, the current research consists of the latest national assessment published in a single volume, *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends* (Cordell, 1999). The 1998 national outdoor recreation assessment was conducted by U.S. Forest Service scientists at the Southern Research Station along with many cooperators and contributors. Before examining the 1998 national assessment and its findings, it is useful to trace the history and evolution of national recreation assessments in the United States.

Through the years, outdoor recreation has existed in various forms, but it was

not until the economic boom years following World War II that it truly became a social phenomenon that demanded government attention. Marion Clawson, an early and significant leader in developing scientific analyses of outdoor recreation, frequently noted four "fueling factors" that drove outdoor recreation demand to unprecedented levels in the postwar years (Clawson & Harrington, 1991). These were rapid increases in population, per capita real incomes, leisure time, and mobility. Development of the interstate highway system and lower transportation costs for the average American were especially important factors. Later, advances in recreation technology further accelerated demand. It is no coincidence that the emergence of the ORRRC coincided with the development of formal economic analyses of outdoor recreation. The ORRRC was commissioned to answer basic questions about outdoor recreation in the United States. What are the wants and needs, now and in the



future? What recreation resources are available to fill these needs? What policies and programs should be recommended to ensure that present and future needs are met?

Among the ORRRC's greatest accomplishments was the tremendous heightening of public awareness and concern about outdoor recreation. It was also the first official acknowledgment that outdoor recreation was a legitimate concern of the federal government. The ORRRC report led directly to the creation of both the Land and Water Conservation Fund (LWCF) in 1965 and the now-defunct Bureau of Outdoor Recreation (BOR). The ORRRC also heavily influenced other great conservation legislation of the 1960s including the Wilderness Act (1964) and the Wild and Scenic Rivers Act (1968). Excellent reviews of the ORRRC and that critical period in outdoor recreation history are found in Douglas (in press) and Zinser (1995).

#### **The Nationwide Plan**

The Outdoor Recreation Act of 1963, which established the BOR, also authorized the preparation of a "comprehensive nationwide outdoor recreation plan" to study the current and future needs and demands of the public for outdoor recreation. In effect, the nationwide plan constituted a national recreation policy. Revised plans were to be submitted at five-year intervals. The first plan, *The Recreation Imperative*, was completed in 1970 but never released because it was considered too controversial by the Nixon administration. The plan was later published in draft form by the Senate Interior and Insular Affairs Committee. The second plan (a reworking of the first plan and, thus, the first official), *Outdoor Recreation: A Legacy For America*, was published in 1973. It provided guidelines for coordinating the actions of federal and other public agencies and also established roles for both the public and private sectors in meeting recreation needs in the United States. The third *Nation-*

*wide Outdoor Recreation Plan*, completed in 1979, focused on establishing a continuous planning process.

By the arrival of the third plan, the BOR had been reorganized into the Heritage Conservation and Recreation Service (HCRS) by the Carter administra-

tion. Shortly after the election of Ronald Reagan, that agency was abolished. Most of the former BOR functions were assigned to the National Park Service but lost in the shuffle was the nationwide outdoor recreation planning process. The NPS assumed the technical assistance

and LWCF grant-assistance duties, but the third plan represented the final direct and lead involvement of the U.S. Department of the Interior in national recreation assessments and planning.

#### **President's Commission on Americans Outdoors**

The Reagan administration effectively ended national outdoor recreation planning with the abolishment of the HCRS. But to the surprise of many, Reagan established the President's Commission on Americans Outdoors (PCAO) by executive order in early 1985. The PCAO took two years to complete its work, holding extensive public hearings and soliciting input from a wide variety of recreation interests, practitioners, and researchers. The PCAO's course of study was not nearly as extensive as that of the ORRRC. It took more of an issues-oriented and case-study approach, as opposed to quantitative analyses.

The PCAO issued its final report in late 1986. The new unwritten federal policy that emerged from the PCAO stressed the need for an outdoor recreation ethic, private-property rights, landowner liability, cooperative partnerships, and environmental quality. George Siehl has written several excellent articles that review the PCAO, federal recreation policy in general, the federal role as an outdoor recreation provider, and national assessments (Siehl, 1990 and Siehl & O'Leary, 1995).

#### **The National Recreation Surveys**

An important part of the national recreation assessments, beginning with the ORRRC in 1960, has been the series of general-population surveys known as the National Recreation Surveys (NRS). The ORRRC recommended that a national survey about outdoor recreation behaviors, tastes, preferences, and characteristics be conducted every five years. After the initial NRS in 1960, surveys were done in '65, '70, '72, '77, and '82-83. The most recent survey ('94-95), renamed The National Survey on Recreation and

the Environment (NSRE), collected data from some 17,000 Americans.

The NRS surveys never quite lived up to what was envisioned by the ORRRC. Problems arose from a lack of continuity in funding, sponsorship, methodology, and survey composition — both in content and wording. These issues hampered a consistent scheduling interval between surveys and, more importantly, comparability among surveys. By 1982, the nationwide recreation plans that had been conducted by the BOR and HCRS were history. Still, the National Park Service and partners forged ahead with the ORRRC's original intent to periodically update the national recreation surveys. The 1982-83 NRS was the last general population survey of U.S. citizens until the NSRE commenced in 1994.

The current national recreation survey — the '94-95 NSRE — had a new coordinating agency (USDA Forest Service), more federal sponsors, a private sector partner, and an expanded and broadened scope to go with its new name. NSRE coordinators faced the challenge of including a wide array of information, desired by the survey sponsors, within budget and interview length constraints. Cordell et al. (1996) gave a concise description of the NSRE including design, sampling, and methods plus a brief review of the NRS series and the evolution toward the current survey. Planning is currently underway for a follow-up 1999 survey.

#### **The Renewable Resources Planning Act**

Nationwide recreation planning ended when the HCRS was abolished in 1981, but that did not cease national assessments of outdoor recreation. The USDA Forest Service has been conducting assessments since Congress passed the Forest and Rangeland Renewable Resources Planning Act (RPA) in 1974, which directed the secretary of agriculture to prepare a Renewable Resources Assessment by the end of 1975, with an update in 1979 and each 10th year there-

after. *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends* (Cordell, 1999) is the fourth outdoor recreation and wilderness assessment, the second conducted by scientists at the Southern Research Station in Athens, Georgia.

Though not a national recreation policy — as the three nationwide plans aspired to be — the RPA assessment comprehensively assesses the total outdoor recreation situation in the United States. In addition to the current situation, the assessment also considers recent trends

and likely futures in outdoor recreation. The intent was to gather unbiased, scientific information about outdoor recreation and report it in a factual, descriptive manner. Information from the assessment is the basis for the Forest Service's action plan, the RPA program, which is conducted at five-year intervals. In order to maintain the integrity and objectivity of the assessment, the RPA program is kept separate from the RPA assessment.

The RPA assessment serves as information for the long-range planning policy of the Forest Service alone. It was not intended to be a national "plan" or prescribe a coordinating role among federal, state, or other outdoor recreation providers. The early RPA assessments and nationwide recreation plans were separate endeavors. Today, since it is the only national recreation assessment, the RPA assessment is of much interest to the planning, research, marketing, and development branches of both public agencies and private sector recreation interests. It is highly valued for its projections of future recreation participation and behavior. Recreation planners and policymakers regard it as the most reliable and scientifically sound assessment of the "big picture" of outdoor recreation and wilderness in the United States. The decision was made to publish the 1998 RPA assessment as a book rather than a government report in order to increase its visibility and accessibility (Cordell, 1999).

**The 1998 National Recreation Assessment**

As previously mentioned, the 1998 national recreation assessment is the forthcoming *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends* (Cordell, 1999). In addition to fulfilling the mandate of the Renewable Resources Planning Act, it should be a valuable reference to anyone interested in outdoor recreation in the United States including planners, researchers, legislators, political staffs, educators, conservationists,

advocates, and enthusiasts. The scale of the earlier outdoor recreation assessments was primarily national, with some regional comparisons where data was available. The 1998 assessment placed much more emphasis on identifying regional differences in demand and supply and, where possible, examined geographic patterns of recreation resources and uses at the county level.

Assessment specialists examined recreation supply trends across the spectrum of public and private sector opportunities in light of demand trends and projections. From these examinations, the study team attempted to identify (but not prescribe) policy, management, and research implications for outdoor recreation in the United States. A number of agency, conservation, and recreation industry representatives contributed short papers, primarily in the chapters describing resources and participation. These perspectives added significantly to the understanding of trends uncovered in the data.

**Assessment Framework**

To be able to reach the point of examining broad-based and far-reaching trends and implications for outdoor recreation in the United States, a framework for the 1998 national assessment was necessary. It included the following objectives:

- Inventory and describe trends in the availability of land and water recreation resources provided by both the public and private sectors.
- Closely examine the availability of private rural lands for outdoor recreation and the varying levels of public access.
- Describe recent trends and current rates of participation in a variety of outdoor recreation activities by region and across social groups.
- Forecast future participation trends under widely accepted assumptions about future population growth, changes in population composition, and shifts in recreation resource availability.
- Describe recent trends, the current sit-

uation, and likely future designations, uses, and values for wilderness systems, both federal and state.

- Describe the public's perceptions, evaluations, and attitudes about outdoor recreation opportunities in the United States.
- Interpret the implications of resource availability, recreation demand, and other trends for future resource management, policy, and research.

**Public and Private Recreation Resources**

Although natural resource-based recreational opportunities were the primary emphasis of the assessment, the document also included developed facilities for outdoor sports and other activities (Betz et al., in press). The assessment attempted to comprehensively analyze the entire spectrum of recreation resources. Federal, state, and local government recreation systems are covered in depth. The private sector is also represented, both commercial recreation enterprises and not-for-profit organizations. Private land accessibility for outdoor recreation, the focus of one of the assessment chapters (Teasley et al., in press), was the subject of the 1995 National Private Land Owners Survey conducted by the Forest Service and partners. Forest Service staff compiled a county-level database of more than 400 separate measures of recreation opportunities covering as many resources and providers as possible. This database, the National Outdoor Recreation Supply Information System (NORSIS), and other resource data available only as state summaries or as system units because county locations were unavailable (such as designated wilderness areas), formed the basis for the supply "side analyses" of the assessment. A succinct review of the findings appears in Cordell and Betz (1998) and Cordell et al. (1998).

Highlights include:

- Overall, outdoor recreation opportunities in the United States have increased over the past 10 years.

- Growth in acreage of the federal estate has been very limited, but special designations such as wilderness and national rivers have increased appreciably.

- State park systems have grown significantly in the number of areas managed (32 percent) during the 1990s, but much slower in total acreage (eight percent).

- Local park and recreation systems continue to supply more sites, facilities, and programs than any other provider. The United States has more than 4,500 local government departments, 73 percent of which are municipal (Beeler, 1993).

- About 14 percent (180 million acres) of the nation's 1.3 billion acres of rural private land is available for public recreation under various conditions — permission, usage fees, leasing, or open access. The amount of available private land has decreased 35 percent since 1985.

- Greenways, scenic byways, and "watchable wildlife" programs and sites have grown since the late 1980s, largely through public-private partnerships.

### Participation Trends

The National Survey on Recreation and the Environment was the primary source of information for the chapter describing outdoor recreation participation in the United States. Analyses included estimating percentages of the population who participate in outdoor recreation, the numbers of participants, annual number of days of participation, and the annual number of trips taken primarily for outdoor recreation. Current participation estimates for some activities were compared with those from previous national recreation surveys (1960, '65, and '82-83) to describe trends, both recent and long term. Other information sources such as state-park visitation statistics, mountain-biking studies, and consumer spending reports on outdoor recreation equipment and services described a variety of participation trends not covered in the NSRE. See Cordell and O'Leary (1998) for a brief review of the findings, which include:

- The top six land-based recreation activ-

ities (total activity days) for a 12-month period during 1994-95 were walking, bird watching, wildlife viewing, biking, sight-seeing, and family gatherings. Each logged more than 1 billion total activity days in the United States.

- Four water-based activities each had more than 1 billion total activity days: visiting a beach or waterside; swimming in pools; studying nature near water; and swimming in rivers, lakes, or oceans.

- Walking and bird watching had the most avid participants (mean number of days per year) among land activities. Surfing and pool swimming topped the water-based activities.

- Americans' recreation lifestyles have changed noticeably since 1960.

Participation has grown rapidly for some activities (bicycling, camping, swimming, and snow skiing) and very little or even declined for others (horseback riding, hunting, and sailing).

- Fastest-growing activities in number of participants since 1982-83 are:

- Land: bird watching, hiking, and backpacking.

- Water: motorboating and swimming in rivers, lakes, oceans, and pools.

- Snow/ice-based: downhill skiing, snowmobiling, and cross-country skiing.

Participation in outdoor recreation to the year 2050 was investigated through the use of econometric models that examined the effects of demographic, population, and resource-availability factors (Bowker et al., in press). Regression analysis estimates an association between variation in observed recreation participation and variation in demographics and recreation opportunities available to participants. Projected changes in these factors (acquired from the Census Bureau and USDA Economic Research Service) enabled a re-estimation of forecasted participation rates for various future years. Models were run for 23 separate activities in four U.S. regions. In addition to the logistic regression participation forecasts, count data regression models were employed to estimate the association

between the independent variables, the annual number of days of participation, and the annual number of outdoor recreation primary-purpose trips taken away from home. Forecasts were estimated for these intensity measures in a similar fashion as yes-no participation. Key findings include:

- The five fastest-growing (percent-change) activities through the year 2050 measured in activity days are expected to

be visiting historic places, downhill skiing, snowmobiling, sightseeing, and non-consumptive wildlife activity.

- For primary-purpose trips, the fastest-growing activities are expected to be downhill skiing, biking, snowmobiling, sightseeing, and developed camping.
- For number of participants, the fastest-growing activities are expected to be cross-country skiing, downhill skiing, visiting historic places, sightseeing, and bik-

ing. Persistent trends in the federal wilderness system, qualifying roadless areas, ecosystem representation, and state-managed wilderness areas, were part of the assessment of wilderness resources in the United States (Loomis et al., in press). The authors also explored and described off-site, or nonrecreational, benefits of wilderness commonly referred to as option, bequest, and existence values. Models of future wilderness

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## Research Into Action: What's Hot in Outdoor Recreation

### Introduction

This month's "Research Update" summarizes the findings of *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends*, a 1998 study coordinated by the U.S. Forest Service.

### Impact of the Research

The assessment examined outdoor recreation supply trends across the public and private sectors in light of demand trends and projections. From this, policy, management, and research implications for outdoor recreation in the United States are identified. The findings included:

- Overall, outdoor recreation opportunities in the United States have increased in the past 10 years.
- While the growth in acreage

of the federal estate has been very limited, state park systems and local park and recreation systems continue to supply increasing numbers of sites.

- Rural private land available for outdoor recreation use has declined significantly, while public-private partnerships have enabled greenways, scenic byways, and watchable-wildlife programs to proliferate.

- The top land- and water-based recreation activities are walking; bird watching; wildlife viewing; biking; sightseeing; family gatherings; visiting a beach or waterside; and swimming in pools, rivers, lakes, or oceans.

- Americans' outdoor recreation participation has grown rapidly over the years.
- The fastest-growing activities through the year 2050 are expected to be visiting historic places, downhill skiing, snowmobiling, sightseeing, and non-consumptive wildlife activity.

### How to Use this Research

Leisure service organizations should begin comprehensive and strategic planning to address these challenges:

1. Keeping access open to the most desirable recreation places, both public and private.
2. Solutions to the impacts of recreationists on fragile ecosystems.
3. New approaches to outdoor recreation management, such as increased acceptance of Benefits-Based Management.

4. Reliable, high-quality data and information as the basis of management decision-making.

5. Special management of outdoor recreation "enthusiasts" (the 10 to 15 percent of participants who account for 60 to 90 percent of the activity).

6. Increased provision of services for the traditionally underserved including inner-city residents and persons with disabilities.

7. Expanded role of public-private partnerships and other collaborations.

### For More Information

Cordell, H.K. 1999. *Outdoor Recreation in American Life: A National Assessment of Demand and Supply Trends*. Champaign, Ill.: Sagamore Publishing.

recreation visitation were developed similar to the general recreation participation models. Other wilderness-related subjects covered included changes in attitudes toward wilderness management, the use of wilderness for personal growth, and federal-agency perspectives on wilderness management issues. Key findings in this chapter included:

- The National Wilderness Preservation System (NWPS) has continued to grow; however, ecosystem representation is unbalanced. Designation of low-elevation and high-desert wilderness study areas will help rectify this situation.
- Nonrecreation benefits of wilderness are larger in percentage terms and in the aggregate than recreation-use benefits.
- A multiple regression model for predicting future recreation use shows a positive relationship between use and additions to the NWPS, which means that additions will be used by recreationists.
- Recreation use of Forest Service and National Park Service wilderness should

continue to increase in the future, reiterating the management issue of proper carrying capacity for wilderness.

#### **Qualitative Aspects of Recreation**

The assessment also examined the more qualitative aspects of outdoor recreation, namely the motivations, preferences, and satisfactions of outdoor recreationists. Tarrant et al. (in press) provide an in-depth look at the factors that define recreation as an "experience," as opposed to the more quantitative perspective of a consumed activity.

The authors analyzed the preference and satisfaction ratings of several thousand visitors to federal recreation areas using data from the Forest Service's onsite customer survey. They also provide a thorough review of the published literature on preferences and expectations for outdoor recreation experiences. Topics covered include participant motivations, visitor encounters, and percep-

tions and effects of crowding. Conclusions reached include:

- Recent research suggests that the relationship between desired experiences and specific recreation settings may be more complex than outdoor recreation management models often assume.
- The complex nature of experience preferences applies to various settings as well as activities. These preferences are not necessarily static for a particular activity or setting; they may change throughout the duration of a visitor's experience.
- The changing and evolving nature of outdoor recreation in this country guarantees that relevant research on experience preferences and motivations will continue.
- In large part, sampled visitors to federal recreation areas were generally satisfied with the way settings are managed. There were, however, some differences among groups based on the type of setting visited, trip characteristics, gender, and geographic origin.

### Implications and Conclusions

The final chapter of the 1998 national recreation assessment attempts to distill the information from the previous chapters into some general findings about the current state and future outlook of outdoor recreation in the United States. The assessment specialists noted the difficulty of this task, given that recreation is a multifaceted and complex phenomenon. Specifically, they mention the endless array of users, activities, settings, and preferences that combine to define outdoor recreation experiences. In any event, the study team did identify five general findings that emerged from the assessment:

- Wilderness benefits are expanding.
- The growth of the outdoor recreation market is expected to continue.
- The private land base for recreation continues to decline.
- There will be an increased demand for nearby recreation resources.
- Resource changes have not been uniform among regions.

Assessment scientists observed a number of important and specific implications while assessing outdoor recreation in the United States. These conditions represent challenges for future management and resource planning as well as areas of needed research. A constant challenge is gaining and maintaining access to the most desirable recreation places, both public and private. Increasing popularity and demand for special places continues to add to the concern about resource impacts caused by recreationists, especially in fragile ecosystems. As U.S. society, culture, and values continue to change, evolving and new approaches to recreation management are needed to combat shrinking budgets, fiscal conservatism, and declining access to private lands. In response, there has been a growing acceptance and adoption of Benefits-Based Management approaches, which emphasize managing for the experiences and value people derive from recreation. Reliable, high-quality data and

information will continue to be a critical component of management decision-making.

Management will be inclined to better understand and manage for those recreationists who might be called "enthusiasts," the 10 to 15 percent of participants who account for 60 to 90 percent of all outdoor recreation trips and days. At the same time, continued emphasis will be placed upon providing more recreation opportunities for the traditionally under-

served members of society including inner-city residents and people with disabilities. Increasingly, this will be accomplished through the expanded role and involvement of public-private partnerships and other collaborations that benefit both management and users. ■

*The 1998 national recreation assessment book (Cordell, 1999), which will be published by Sagamore Press later this year, should be widely available.*

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