

Chair Porter, Ranking Member Moore, and members of the subcommittee, I am honored to be able to represent the outdoor recreation research community today at this hearing, and to be able to answer your questions concerning what the research tells us about crowding in national parks, the management of crowding in national parks, and what barriers exist to informing the management of crowding in national parks.

Visitor use management in parks is an incredibly complex task—as people are complex, with complex attitudes, motivations, and histories, all of which determine our behavior and subsequent experiences (McCool & Utter, 1981). As pioneering wildland recreation researcher Dr. George Stankey wrote in 1977, “Participation in recreation, like all human behavior, is complex” (p. 160). The challenges and triumphs of over a century of national park management in the United States illustrate that complexity.

I’d like to begin with two points of clarification, which I hope will prove useful in our discussion of the issue at hand. First, it is important to note that freedom is central to outdoor recreation, and the broader national park experience (Manning & Anderson, 2012; Springgate, 2008). Data confirms that the experience of leisure in national parks is motivated by a desire for freedom—whether that’s freedom from everyday responsibilities or freedom to explore (Manning & Anderson, 2012; Wilson et al., 2018). We come to national parks to experience freedom and in many ways national parks are emblematic of the larger freedoms we enjoy as Americans. Thus, managing or regulating the visitor experience—and thus limiting freedom—in the face of crowding in national parks has impacts on visitors who are seeking a more unconfined experience (Manning & Anderson, 2012; Rice et al., 2022).

Second, crowding is not an objective term (Vaske et al, 1986). Instead, it is a normative, subjective evaluation of visitor density in park settings (Manning, 2011). Thus, crowding can not necessarily be assumed based on the number of people entering a national park; it must be empirically identified based on gathering data on the visitors’ experiences in the park to determine if they are perceiving crowding or not (Manning, 2011; Tarrant et al., 1997). Further, crowding is not simply the function of the human density one encounters. It is also heavily influenced by the characteristics of the visitor, the characteristics and behavior of those the visitor encounters, and the setting where those encounters occur (Absher & Lee, 1981; Manning, 2011; White, 2007). For example, 100 people quietly reading in a park may impart far less of a feeling of crowdedness than 100 trail runners or bicyclists in the same space.

This is not to say that dense use conditions in national parks are not an issue of high importance. Research has found negative ecological and social impacts resulting from increasing visitor use in national parks (Cole et al., 2008; Levenhagen et al., 2020; Manning & Anderson, 2012). As a social scientist, I focus on the social, or visitor, impact. While satisfaction is relatively resilient in the face of crowding (Nickerson et al., 2020), the experiences that national park managers seek to provide visitors—as prescribed in their management plans or, in the case of wilderness for example, founding legislation—are more vulnerable to change. Solitude, a common aim of park visitors, for example, may be difficult to attain in the face of crowding.

Thus, management actions are prescribed to manage or limit use. In recent years, as a management strategy, limiting use in national parks has increased. So-called “managed access”—wherein park managers place a limit on the number of visitors who may enter a park on a given hour or given day—stands prominent among this trend. However, I wish to note that

serious considerations are in order when managing visitor use in this manner (McCool & Utter, 1981; Shelby, 1981; Shelby et al., 1989). Such strategies for managing crowding primarily address just one of its causes—the number of people in the park—and generally ignore the characteristics of the visitors and the characteristics and behavior of those the visitors encounter (Manning, 2011). Further this strategy represents a relatively obtrusive option, compared to other management strategies, considering its impact on the visitor experience (Manning & Lime, 2001).

Research suggests that there are also serious ramifications for how we ration recreational use in the face of use limits. The foundational work of Dr. Bo Shelby in the 1980s suggests that we must balance equity, efficiency, equality, and need to ensure fair rationing decisions (Shelby, 1981; Shelby et al, 1989). In the face of increasing demand for scarce recreation amenities like popular national park campsites or even entrance into popular national parks, demand can dramatically outstrip supply. Unlike in the private sector, where price might simply be increased to balance supply and demand, publicly-administered goods like campsites, river permits, or managed access entrance permits into a national park require more complex solutions in order to keep these sites accessible to all Americans (Bamford et al., 1988). According to a 2021 newsletter from Recreation.gov, “A popular campground with 57 campsites can see close to 19,000 people all trying to reserve the same campsites for the same dates immediately after they’re released for reservation.” Thus in a popular national park, a would-be camper may have a 0.3% chance of successfully booking a campsite through an online reservation-based rationing mechanism. This chance is likely lower for those with jobs that prevent them from being able to plan trips months in advance, those living in rural areas with limited high-speed internet, those without the institutional knowledge to know that they must reserve such recreation amenities so far in advance, or those who simply have jobs that prevent them from being able to be online to make reservations whenever permits are released for reservation. Lotteries, an alternative rationing mechanism, have their own trade-offs—application fees may deter those with less dispensable income (Shelby et al., 1989). And thus, I return to the central theme of my testimony today, this is a complex problem without a simple solution. No matter the rationing mechanism used to implement a use limit—a reservation, lottery, pricing, or first-come first-served system—serious trade-offs exist concerning the balance of equity, efficiency, equality, need, and the quality of the visitor experience (Shelby et al., 1989).

At present, however, we lack research-based best practices to help national park managers as they navigate their options in striking the correct balance when rationing use (McCool & Utter, 1981; Shelby, 1981). No framework exists, because scarce research exists. It is important to note that the lack of a rationing framework is not just an issue for a handful of parks, numerous national park units and other federal lands require guidance on how to fairly and efficiently distribute scarce recreation opportunities across dynamic systems. In fact, Professor Emeritus of Wildland Recreation Management Dr. Steve McCool wrote forty-one years ago that “how managers go about allocating scarce recreation opportunities in face of ever increasing demand still needs direction and a framework for solutions” (p. 60). Such a framework still does not exist. Related, much of the science we look to help answer our questions today about managed access was conducted on commercial and noncommercial river permit allocation in the 1970s and 1980s. Prior to a study conducted by myself and other colleagues at the University of Montana last year, the only empirical study of fairness in campsite rationing was conducted in 1973—finding that only 34% of campers in California at the time had jobs that allowed them to make reservations for campsites 12 weeks in advance (Magill, 1976). Our own independent,

peer-reviewed work found that reservation systems appear to exclude visitors based on income (Rice et al., 2022). Further, a webapp (*The Outdoor Equity App*) developed using data from Recreation.gov—and in direct collaboration with Recreation One Stop—in 2022 revealed a number of clear trends surrounding demographics and reservation booking windows (see example in Figure 1). At present, there is simply not enough applied, collaborative research out there to support management direction on how to support a framework to help best ration recreation opportunities. As a subject matter expert, I see this as the primary outdoor recreation research need of our time.

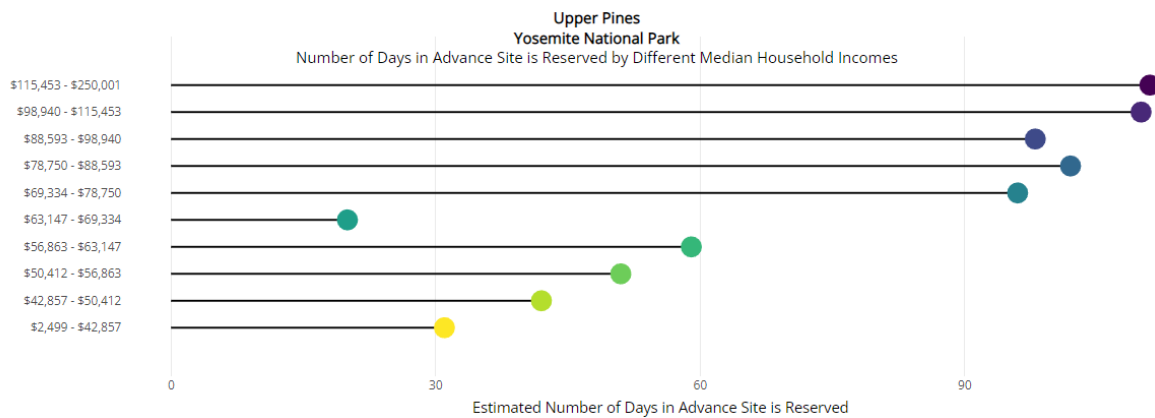


Figure 1. Variation in campsite booking windows in 2018 across the median household incomes of campers’ home zip codes for Upper Pines Campground in Yosemite National Park (California, USA; Image used with permission from *The Outdoor Equity App*).

Unfortunately, while many agency officials appear poised to address this identified need, the research community—including agency staff—face an increasingly difficult barrier with regards to Office of Management and Budget (OMB) review of visitor surveys in accordance with the Paperwork Reduction Act. Visitor surveys are our best tool for understanding the visitor experience in park settings, and in national parks and other federal lands sponsored surveys require review by an OMB desk officer. Within the last two years, this review process has nearly stalled—from an external perspective—and today many survey efforts in national parks are stalled pending OMB approval. As a result, the management actions that rest on the data-to-be-collected are stalled or are continuing on with less information to guide them. At the University of Montana, alone, many of our students’ research projects in national parks have been stalled for one or more years as they await OMB review.

I conclude by restating the quoted preamble from a 1997 article by the highly influential Drs. Lindberg, McCool, and Stankey which focuses on a similar theme: “To every complex problem, there is a simple solution. And it is wrong” (p. 461). Managing people in national parks requires complex thinking and, as we’ve found time and again, complex solutions, if we are to do it right and do it fairly. In the face of increasing visitation, and in some cases crowding, we must 1) be cognizant of the complexity of human condition, 2) build science-backed management frameworks for rationing use in national parks that recognize that complexity along with the mandate of National Park Service, 3) mediate barriers to collaborative visitor use research in national parks, and 4) exercise caution in reaching for use limits which may limit freedom or prove exclusionary if other tools remain in the toolbox to shift use patterns.

I am writing for myself and not as a representative of the University of Montana or the Montana University System.

Respectfully,

A handwritten signature in black ink that reads "Will W" with a long, sweeping flourish extending to the right.

William L. Rice, Ph.D.

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