Counting on Recreation Use Data: A Call for Long-Term Monitoring

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What is the Use of Use Data?

While the theory of recreation benefits and satisfaction has legitimately moved a long way from simple body counts to focus on visitor outcomes, experiences and the satisfaction of underlying needs, long term recreation visitation data is still crucial. Such data is essential for assessing visitor impacts to the resource, facilities planning, budgeting, calculating economic contribution that tourism provides and estimating economic value of the recreation experience to the visitor themselves.

Government agencies that supply outdoor recreation have been slow to recognize the importance of consistently collected and defensible use data, however. The consequences of not having good recreation data are substantial. Without good visitor use data, recreation fares poorly in budget allocations for management, replacement of facilities, expansion of facilities, acquisition of lands for recreation and allocation of natural resources such as water flows. Other competing uses of agencies available budget often prevail when they have better data on what they produce. If we don't even know the number of customers we serve, how can agencies be customer oriented? If we don't know the baseline visitation, how can we measure the benefits of enhancing recreation site quality or programs (Loomis and Walsh, 1997). On multiple use lands managers are told the number of board feet and the number of cattle using an area, but recreation use is often merely described as high or low. In wildlife management, agencies continue to emphasize management of game animals because of documented use, while the growing popularity of non-game wildlife recreation is often given limited attention because agencies don't even know how many people visit specific areas for that purpose. Even when agencies do count visitors, the procedures are so variable from year to year, that we don't know if the change in reported visitor use levels signals a new trend or a new ranger making the counts.

When recreation specialists are pushed to "give us a number" such "ball-park" estimates often lack credibility with the public or competing resource user groups. This was brought to a head in the U.S. Forest Service when the Assistant Secretary of Agriculture began quoting the agency's conclusion that

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recreation produced far more than half the jobs, income and value of the National Forest System. The timber industry challenged such a conclusion based, in large part, on the lack of documented visitor use estimates (Scahllau, et al.). These authors compared U.S. Forest Service visitor use estimates to the more objective estimates of National Parks and concluded the U.S. Forest Service had overestimated use. But no one really knows. Even the U.S. Forest Service's Wilderness visitor statistics are admittedly suspect as only 15% are based on actual counts (Cole, 1996). Yet Wilderness management to maintain environmental quality and naturalness depends on relating visitor use to impacts.

The Bureau of Land Management (BLM) is even worse in their visitor counts. BLM's visitor counting at Wilderness areas is such a low priority that their estimates are gross undercounts of visitation. The database system is so unavailable to field personnel, that the neglect feeds on itself. Why bother to collect visitor use figures when you can't even access the database? Yet Wilderness designation is one of the most contentious faced by BLM but they can't produce analyses comparable to other resources because they have no data.

Some Solutions

KISS Methods

Counting visitors is not rocket science and some agencies have developed cost-effective sampling designs and strategies to consistently collect visitor use data at their sites. First and foremost is for the agency to recognize that it *can* use sampling, it does not need a census of all visitors at all sites. Careful selection of a representative set of recreation areas, entry points or sites would allow generalizing the results to all the recreation areas in a given State or region. The same thing is true during the recreation season. A random sample of weekdays and weekends through out the season is often sufficient. Understanding that a well selected sample is adequate, will avoid the defeatist mentality that we can't count every visitor on every day at every site. You don't have to.

Trail register maintenance is probably the simplest and most cost-effective approach. How many of us have gone to a trail register to see months worth of data sitting unattended with a stub of a pencil in the box? What message does this send users as to the importance of registering? Visitor registration forms picked up at least monthly, and replacement of pencils and forms would signal to the visitor that visitor registration is taken seriously by the agency. Occasional calibration of visitor registration rates with on-site, non-invasive observational counts would make the trail register information quite solid. Even counting cars in the parking lot would assist in computing conversion factors. Partnering with local conservation or outdoor recreation groups would be a cost-effective option for some recreation areas and trail-heads. This takes the "adopt a trail" approach to the next level. Not all concerned trail users want to swing a pulaski or build trails. Many retired

visitors may be willing to visit the trail on weekdays and collect the visitor registers and replace pages.

In the Federal agencies, tying collection of visitor use data into other programs would go along way to making collection of visitor use statistics more cost effective. The fee demonstration program provides an opportunity not just to count dollars, but to count visitors and this would also go along way toward improving the accuracy of visitation statistics. Having maintenance workers and other field specialists service visitor registers would help keep the cost down. Building visitor use data collection into concessionaire contracts that manage many recreation areas would be a good step in the right direction as well.

Long Term Recreation Site Sampling

Over the last decade the natural scientists working with agencies such as the National Science Foundation have begun to establish and fund Long Term Ecological Research sites. These agencies recognize that separating fundamental changes in trends from short term fluctuations requires long term baseline data. To answer many questions such as potential affects of global climate change on recreation use and what is the loss in visitor use with chemical or oil spills requires baseline data.

The objective is to select a mix recreation settings (e.g., paved to primitive) and activity types that would provide a representative sample of trends in visitor use. Agencies would commit to establish and fund a consistent data collection protocol for at least a decade. The key is to establish a realistic and cost-effective set of sites and procedures. Again, opportunities to partner with conservation or outdoor groups to "adopt at trail" or site might be useful, as long as training in the sampling protocol is maintained.

Conclusion

Data is one of the foundations of science. Without data we will continue to conjecture on important topics such as whether changes in our management have any effect or whether the aging of the baby boomers will affect visits to Wilderness areas. Or we can start collecting data to address topics such as these. By establishing long term recreation monitoring sites and by paying attention to our visitors, we can serve them better. If we don't have even know how many customers we have and whether their use is increasing or decreasing, it is hard to make the good recreation management decisions. Better data collection is an important step to better funding, management and allocation of natural resources to recreation.

References

Cole, D. (1996). Wilderness Recreation Use Trends 1965 through 1994. Research Paper INT-RP-488. Ogden, UT: U.S. Department of Agriculture, Forest Service, Intermountain Research Station.

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- Loomis, J. and R. Walsh. (1997). Recreation Economic Decisions: Comparing Benefits and Costs. 2nd ed. State College, PA: Venture Press.
- Scahllau, Con, W. Maki & W. McKillop. (1997). Recreation or Timber: Which Brings More Economic Benefits? Unpublished paper.