Preferences of Backpackers and River Runners for Allocation Techniques

Shelby, B., Danley, M. S., Gibbs, K. C., & Peterson, M. E. (1982). Preferences of backpackers and river runners for allocation techniques. *Journal of Forestry* 80(7), 416-419.

River(s):	Snake River (Hells Canyon)
Research Topic(s):	Permit/fee system, Use allocation
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1. Abstract

Three studies were conducted to investigate the potential consequences of implementing allocation systems to limit use. Hells Canyon on the Snake River, Eagle Cap Wilderness, and Mount Jefferson Wilderness were the three locations used to hand out mail-back questionnaires during the summers of 1978 and 1979. Questionnaires at Hells Canyon were given to river runners and at the wilderness areas were given to backpackers. The allocation systems studied were: Pricing, Advance Reservations, Lottery, Queuing, and Merit. Results indicate a distinct difference in reactions between river runners and backpackers. As well, implementation of allocation systems needs to take into account the user base and characteristics of the site. Overall, this study indicates that Advance Reservations and Pricing systems are viewed most favorably by both user groups.

2. Study Purpose

The purpose of this study is to explore backpacker and river runner reactions to five different allocation systems.

3. Findings

Response rates for each study:

- Hells Canyon (river runners) 87%
- Eagle Cap Wilderness (backpackers) 84%
- Mount Jefferson Wilderness (backpackers) 73%

3.1. Chances of obtaining permits

- <u>Reservations</u> and <u>Pricing</u> would have least impact on groups obtaining permits
- Majority of backpackers (66%) felt <u>Merit</u> system would not affect permit chances, while majority of river runners (63%) felt this system would affect their chances of getting a permit
- "<u>Lotteries</u> and <u>Queuing</u> would have a greater impact than other systems on obtaining a permit" (p. 418)

3.2. Fairness

- <u>Reservations</u> and <u>Pricing</u> were considered the most fair ("river runners favored reservations more than backpackers" p. 418)
- Less than 40% of users from each study viewed <u>Lotteries</u>, <u>Queuing</u>, and <u>Merit</u> systems as fair
- "River runners regarded lotteries more positively and queuing more negatively than did backpackers" (p. 418)

3.3. Acceptability

- <u>Reservations</u> and <u>Pricing</u> received majority support from backpackers and river runners
- Lotteries received support from 50% of river runners and 28-30% of backpackers
- <u>Queuing</u> received support from about 50% of backpackers and 25% of river runners
- <u>Merit</u> "did not receive majority support from any group" (p. 418)

3.4. Willingness to try the system

- Reservations and Pricing, most users (62-84%) were willing to try these systems
- Lottery, about half of the river runners were willing, but few backpackers were willing
- <u>Queuing</u> and <u>Merit</u> received majority of backpackers willingness to try, but few river runners were willing

4. Key Discussion Points

- Overall, reservations and pricing received the most favorable support from all three study groups
- Reservations received strongest support from river runners, "probably because they
 plan further in advance than hikers do and because this was the existing system on the
 Snake and, therefore, the most familiar." (p. 418) A previous study supports this as
 well.
- There appears to be a clear difference in viewpoint between river runners and backpackers on the best allocation system. "Systems should be tailored to the expected clientele." (p. 418)
- Review of other studies indicates there is overall user support for limiting use to protect the resource and the recreation experience

5. Management Recommendations

N/A

6. Research Design

- Hells Canyon survey research, census
- Eagle Cap and Mount Jefferson survey research, random sample of high and low use areas

6.1. Study Area

- River Hells Canyon reach of the Snake River, Idaho and Oregon
- Wilderness Eagle Cap Wilderness, Oregon and Mount Jefferson Wilderness, Oregon

6.2. Data Collection Instruments

Questionnaire handed out on-site and mailed back

6.3. Study Population

- Hells Canyon river runners at Heller Bar take-out during August 4-22, 1978
- Eagle Cap backpackers at high and low use trailheads during August and first week in September, 1979
- Mount Jefferson backpackers at high and low use trailheads during July and second week in September, 1979

6.4. Sample Size

- Hells Canyon 295 river runners
- Eagle Cap 118 backpackers
- Mount Jefferson 261 backpackers

6.5. List of Variables and Operational Definitions

- In the questionnaire, users were given descriptions of five allocation alternatives and were asked to consider each assuming all users would be required to get a permit for their respective area.
- Users were asked four questions about each system:
 - How the system would affect chance of obtaining a permit
 - I If the system was fair
 - I If the system was acceptable
 - If the user would be willing to get a permit by that system
- 6.5.1. Purchase Permits (Pricing)
 - "All individual users would be required to purchase permits" (p. 417)
 - Permit cost increased on high use days, decreased on low use days
 - No limits on number of permits purchased per individual
 - Permits are transferable
 - Can be purchased any time up to and including day of trip "until all trips for the day were taken" (p. 417)
- 6.5.2. Advance Reservations
 - "All permits for trips during the summer season would be reserved before the desired trip date" (p. 417)

- Priority given to earliest reservations, therefore, users planning earlier have a better chance of getting a permit for their desired date
- Limited number of permits issued per day
- Can reserve many dates per season
- 6.5.3. Lottery
 - "Users would apply for a trip date of their choice, and applicants would be selected at random for those days when applications exceeded the limit" (p. 417)
 - Chances of getting a permit for a particular date depended on number of other people desiring a permit for the same day
 - Must apply for permit 4-8 weeks in advance, notified at least 4 weeks ahead of time if awarded permit
 - Can apply for many dates per season
 - If not awarded first choice date, would be given alternate choices
 - Dates not filled by the lottery are available first-come, first-served
- 6.5.4. Queuing (first-come, first-served)
 - "Permits would be issued until the daily capacity was reached" (p. 417)
 - Priority given to earliest arrivals
 - Cannot reserve permits in advance
 - Once daily capacity filled, no more permits awarded users arriving after this point are turned away
- 6.5.5. Merit
 - "Preference would be given to users who demonstrate outdoor skills, knowledge of environmental practices, and safety" (p. 417) on those days when capacity is exceeded
 - Users who don't meet merit criteria will likely not be able to recreate on most popular days (e.g., holidays)
 - A test by the administering agency would be given to those wanting to receive merit priority
 - "Merit criteria would be subject to interpretation and evaluation" (p. 417) by the administering agency

7. Theories Used in Study

N/A