

Ethnic Use of the Tonto: Geographic Expansion of the Recreation Knowledge Base¹

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Abstract: The recreational use of the Tonto National Forest, Arizona was investigated by using data on ethnic and racial sub-groups. The Tonto is a Class 1 urban proximate forest adjoining the large, culturally diverse population of the Phoenix. An on-site survey of 524 recreating groups found sufficiently large numbers of Anglos (n=425) and Hispanics (n=82) who participated in our study. Analyses indicated Anglos sought more equipment-oriented experiences, while Hispanics sought experiences centered around basic site services and facilities. The marginality hypothesis and ethnic assimilation perspectives suggested a causal basis for observed differences. Despite differences, the two groups were quite similar on many other characteristics. Management and research implications are discussed.

Urban-proximate lands, including National Forests, present among the most profound challenges in resource management (Bradley 1984). A special challenge to recreation managers arises from huge and growing numbers of users bringing myriad expectations, desires, and behaviors with them to the forest (Ewert 1991). In this urban-forest environment, "the" visitor can appear to the manager as a distorted, composite reflection of the complex, culturally diverse, urban populations from which he/she comes. One way to comprehend this complexity is to analytically decompose use by assessing the attributes of ethnic and racial sub-groups of forest recreation users. Considerable research of this kind has been done in southern California (Baas and others 1993, Carr and Williams 1993, Chavez 1993, Chavez and others 1993, Chavez 1992), but much less is known about recreational diversity on urban forests elsewhere (with the exception of a study of Phoenix area households by Floyd and others [1990]).

In an effort to extend the generalizability of ethnic recreation research, the geographic information base on ethnic use was expanded to describe ethnic and racial minority use on the Tonto National Forest, Arizona. The Tonto is a USDA Forest Service Category 1 urban proximate forest located within 50 miles of 2 million people in the Phoenix metropolitan area. About 30 percent of the Phoenix population is non-white, comprised of about 300,000 Hispanics, 100,000 African-Americans, 29,000 Native Americans, and 180,000 other

non-whites (US Bureau of Census 1991). The Phoenix population's influence upon the Forest is most profound especially in its southern half, while the northern part of the Forest is perhaps more influenced by local residents of small towns and other rural areas.

Prior to the study's inception, Forest managers had little quantitative information about recreational use by racial and ethnic sub-populations. Moreover, knowledge was limited regarding recreational use of the Tonto as a whole, and of specific areas throughout the Forest. This dearth of information left managers to largely speculate about the recreation opportunities desired by their diverse clientele.

Thus, research was conducted to address the goal of providing Tonto's resource managers with information on forest-wide recreation use, and on the recreation activities and preferences of ethnic minority users. A second goal was to expand existing knowledge about ethnic forest users to forest environments in geographic areas outside California. These goals were addressed by the following research objective:

To determine the kind, extent, and location of summer recreation use on the Tonto through an on-site survey describing the behavior, preferences, and social-demographic characteristics of the forest user population, including racial and ethnic sub-populations of forest recreationists.

Methods

On-site, face-to-face interviews were conducted of recreating groups during July, August, and September 1992 at 25 interview locations identified by district recreation staff as representative of recreation use on the Tonto's six Ranger Districts. The sample was stratified by time-of-day and day-of-week. Out of 542 attempted, 524 group leader interviews were completed for a response rate of 96 percent. An evaluation of the survey sample indicated that the sample was similar to the populations of Maricopa County and the State of Arizona as a whole with regard to race or ethnic affiliation, age, education, and household income. Because prior information was unavailable with which to describe the Forest's user population, the sample's representativeness of the user population could only be inferred from the sample results.

Results

The survey results contained sufficient numbers of observations with which to compare Anglo (n=425) and Hispanic or Mexican (n=82) forest visitors. Although

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affiliation as either Hispanic or Mexican was asked as a separate category in the questionnaire (Carr and Williams [1993] found differences in recreation behavior and preferences between Hispanics and Mexicans), too few Mexican individuals ($n=21$) were contained in the sample to allow separate analysis of the Hispanic and Mexican groups. The small numbers of individuals representing other racial and ethnic groups similarly prohibited their separate consideration in the analysis of the data.

The Hispanic and Anglo groups were found to be very similar on most preference and behavioral items. Some noteworthy areas of apparent agreement between the two groups were: proportion who were first-time visitors (10 percent); length of stay (mode=1 to 4 days); period of time as a returning forest visitor (about 10.5 years); frequency of visitation (about 3.5 times/year); group size (median=4.1); original source of information about the forest (family/friends=70 percent); whether or not they were at their favorite place on the forest (yes=71 percent); three most favored activities (jet/water ski, fishing, resting/relaxing); and two most important site attributes (place to recreate with family, low cost recreation area). Yet, although the two groups were similar with regard to many recreation characteristics, Anglos and Hispanics remained sufficiently different to suggest separate consideration in recreation resource planning and management on the Tonto.

Statistically significant ($p=.05$) areas of difference were found with regard to Anglos' greater access to a boat as part of their outing and motor-boating as an activity; Anglos' greater frequency of participation in jet skiing or water skiing; Anglos' greater incidence of canoeing, sailing, or kayaking; Anglos' greater incidence of RV camping outside of a campground; Anglos' preference for a place where they can use their equipment; Anglos' greater preference for finding a boat launch; Anglos' greater preference for enjoying the sounds and smells of nature; Hispanics' greater incidence of hiking or walking on trails; and Hispanics' greater preference for finding a picnic area.

While there is a somewhat greater likelihood that the groups are similar on a particular variable (i.e., $p>.05$), other differences indicated between the two groups were Hispanics' greater incidence of tent camping in a camp ground ($p=.10$); Hispanics' greater incidence of group or team sports ($p=.16$); Hispanics' greater preference for obtaining information about the Forest by learning from their own group of family or friends ($p=.11$); Hispanics' greater importance given to finding a place to park ($p=.17$); Hispanics' greater importance given to finding hiking trails ($p=.12$); Hispanics' greater importance given to finding toilets ($p=.07$); and Anglos' greater incidence of tubing or rafting ($p=.06$).

Additional differences between Hispanics and Anglos were evident with regard to various social-demographic characteristics: the median age of Anglo groups was 20 to 29 years, while the age of Hispanic groups was 13 to 19 years; the average education of Anglos was 14.1 years, while the average of Hispanics was 12.6 years; and the median income

of Anglos was \$40,000 to \$49,000, while the income of Hispanics was \$20,000 to \$29,000.

Discussion

Although Anglos and Hispanics are similar with regard to many recreational characteristics, the two groups are sufficiently different to suggest separate consideration in recreation resource management on the Tonto. If the survey sample accurately represents the Forest user population, about one in every six visitors to the Tonto is Hispanic, with a higher proportion of Hispanic visitors at some locations. The sheer size of this clientele group dictates that management consider characteristics of the recreation experience that will potentially enhance the quality of experience for Hispanic visitors, as well as the Anglo visitors.

The recreation experiences of Anglos on the Tonto suggest a strong equipment orientation sought in a natural setting. The centrality of home-brought equipment to recreation experiences is supported by the somewhat higher median incomes of Anglo, as compared with Hispanic visitors. The recreation experiences of Hispanics on the Forest suggest less reliance on expensive home-brought equipment and greater reliance upon basic on-site services and facilities.

The extent that observed differences between Anglo and Hispanic visitors can be attributed to differences related to income (the marginality hypothesis), to innate subcultural differences in values and expectations (the ethnicity hypothesis), or to some other cause remains undetermined (Carr and Williams [1993] provide an excellent discussion of the role of these variables in outdoor recreation experiences). However, both Anglos and Hispanics express preferences for the same "most preferred" activities and site attributes, suggesting that a lack of available personal resources is a factor in constraining demand by Hispanics. These findings suggest support for the marginality hypothesis and the ethnic assimilation perspective of diminishing inter-cultural differences (Floyd and others 1993).

Conclusions

Management Implications

This study's goal has been to provide an increased understanding of recreationists on the Tonto National Forest. From a management perspective, this knowledge can be useful in numerous ways. Our study's results showed that two main groups of summer visitors, Anglos and Hispanics, recreated at the Tonto. These groups represent quite different recreation experience types as is evident in their expectations for settings and use of on-site services and facilities. At the same time, an abundance of similarities between the groups suggest a considerable overlap in the recreation opportunities provided. This redundancy makes the task of management more tractable, since it allows management to focus on providing opportunities that help ensure the uniqueness of each group's recreation experiences.

The study also provides insight into the area of visitor education and safety. The current accident rate among Hispanics involved in water activities is dramatically higher than the rate for Anglos involved in similar activities at similar locations on the Forest. The information in the study pertaining to equipment access, activity locations, preferred means of gaining visitor information, and visitor age, group type, and educational profiles can be used to mount a water safety education project aimed at Hispanics at risk of drowning.

Research Implications

The study suggests several avenues for further research. The research conducted on the Tonto assessed recreation use during only the summer season. Managers believe that use on the Forest varies considerably throughout the other months, including levels of use and the activities of racial and ethnic user groups such as Native Americans. Research into use during these other seasons is needed to present a more complete picture of recreation on the Tonto.

Because considerable forest use by ethnic and racial groups is believed to occur at a distance from more easily accessible, heavily used sites, a household survey of remote forest users should be conducted. This approach would be especially useful in assessing use of the forest by the several Native American tribes who have reservations that adjoin the Forest. Essentially nothing is known about Native American use of the Tonto, (Taylor 1992) but proximity suggests the Forest plays an important role in the lives of some of these people.

These combined studies promise to effectively expand the geographic and social perspectives of recreation research, providing resource managers with a solid basis for management decisions. One method to achieve better decisions is to profile the experience attributes that promise to further

enhance the recreation experiences of diverse forest users. The challenge to researchers is to contribute to these recreation profiles without building mere stereotypes of what are obviously complex and dynamic phenomena.

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