

Chapter 15: Forest Visitation, Media Consumption, and Diverse Publics: Lessons for Outreach

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Abstract

In spite of a continually diverse public, particularly in urban areas, the majority of forest visitors are White. Researchers have offered up a number of factors that reflect differing motivations and constraints to national forest recreation among individuals from a variety of racial backgrounds. Some of these constraints may be addressed through improved communication with diverse publics, best understood through a needs analysis.

This paper presents findings from a needs analysis conducted among residents of Los Angeles County. Individuals identified as Asian, African American, Latino, or White participated in a telephone survey. Findings reveal differential use of media among respondents, including significant differences in the number of hours per week that respondents watched television and listened to the radio. However, no differences in the hours spent reading magazines or newspapers were revealed. Aside from the differences in media types, specific outlets respondents reported also differed, as demonstrated by radio station programs listened to and newspapers read. A strong pattern of ethnic media use was indicated among Latino and African American respondents. Findings suggest that ethnic media may be one form of contact to focus on for communicating with diverse publics. The use of print media and getting the word out through community contacts is also recommended. Although the Internet was mentioned as a trusted source of information for respondents, differential access and familiarity of use, as well as the possible geographic specificity of Internet reliance, suggests caution. Our findings on media usage, including preferences for ethnic media, may be generalizable across recreation venues outside of the Los Angeles Basin and national forest lands, providing assistance for program managers interested in outreach to diverse publics.

Keywords: Diversity, media, ethnic media, barriers, communication.

Researchers have offered up a number of factors that reflect differing motivations and constraints to national forest recreation among individuals from a variety of racial backgrounds. Some of these constraints may be addressed through improved communication with diverse publics, best understood through a needs analysis.

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Introduction

Motivations and Barriers/Constraints to Forest Visitation

National forests are important resources for all citizens, but with minor exceptions, research suggests that visitors to the forests are drawn largely from the White majority (Outdoor Industry Association 2004, Tierney et al. 1998). Researchers have offered many reasons for the underrepresentation of communities of color among forest visitors, including varying motivations for taking trips and constraints experienced by diverse publics.

Motivations for taking vacations or day trips differ by ethnicity. For example, Tierney et al. (1998) found that African Americans took vacations or daily excursions because they wanted to visit a safe place, to rest physically, or to challenge themselves. Latino respondents, conversely, vacationed or took day trips to be with family, to learn about a new culture or area, to develop new skills, to teach others, to maintain ties with their culture, or to meet new people.

The literature also outlines specific reasons for **not** visiting recreation areas based on ethnicity. Barriers and constraints specific to communities of color have been reported as agency culture (Roberts 2003, Tierney et al. 1998), historical context (Roberts 2003), perceived and actual discrimination (McDonald and McAvoy 1997, Tierney et al. 1998), language barriers (Allison and Hibbler 2004, Winter et al. 2004), concerns about safety (Johnson et al. 2001, Scott et al. 2004), lack of awareness of opportunities (Roberts 2003, Scott et al. 2004), lack of discretionary funds (Scott et al. 2004, Tierney et al. 1998), lack of transportation (Scott et al. 2004, Tierney et al. 1998), lack of someone to recreate with (Johnson et al. 1998, Tierney et al. 1998), and cultural preferences for the built environment (such as more development of picnic spaces) versus what is found in natural resource recreation settings (Floyd 1999, McDonald and McAvoy 1997). A lack of information onsite has also been reported as a constraint to outdoor recreation participation among ethnic minorities (Winter et al. 2004).

Agency culture is seen as a barrier for multiple reasons including the underrepresentation of non-Whites as employees delivering and managing recreation opportunities, communication and education methods that are a poor fit with the needs and preferences of communities of color, planning for a “traditional White” visitor experience, and a general lack of feeling welcomed (Allison and Hibbler 2004, Roberts 2003, Tierney et al. 1998).

Historical context has been discussed by Johnson et al. (1998) as emerging from the history of slavery among African Americans in the United States, resulting in a negative relationship with the natural resource base; and for Native Americans as a

result of the loss of land and limitations on traditional uses on lands (McAvoy et al. 2003, Roberts 2003).

More indepth discussions of barriers to recreation participation among communities of color appear elsewhere (see Johnson et al. 1998, McAvoy et al. 2003, Tierney et al. 1998). However, for the purposes of this paper, two constraints are of particular interest: concerns related to agency culture regarding communication and education methods. Both can lend valuable insights into reports of lack of information as a constraint to outdoor recreation. Of particular interest are these barriers and constraints because they lie within the purview of the Forest Service. Given the agency's role in providing services and opportunities within public land management, these topics are of significance. The present research explores racial/ethnic variations in outdoor recreation, including communication-related issues, to further our understanding of some of the underlying factors at work in minority underparticipation.

Media and Usage

One possible way to address the racial/ethnic imbalance in forest usage is through the use of the media. If the media can be used to persuade the citizenry that forested areas are a valued public resource, to be used by all, it might be possible to address a portion of the earlier-noted racial and ethnic differences in usage. This possibility raises a number of interesting questions. For example, is information about the Forest Service being adequately disseminated in minority communities? Can the media be used to help address possibly underserved communities? Further, are there better ways of making known to these communities the many resources and opportunities for recreation that are available in the national forests? In short, do we need to do a better job of disseminating the Forest Service's message to a diverse public?

This study investigated ways that people of both majority and minority racial/ethnic status acquire information about the national forests. Assuming differences in how this information is acquired, a second goal of the research was to determine the best ways of reaching the underserved audience (or audiences). If racial/ethnic minority groups do not acquire information in the ways that citizens of majority status do, then supplying information via alternate channels may be the optimal way of reaching these underserved groups.

In the United States, the government often has called upon the mass media to ameliorate important social problems or to publicize interventions taken to improve the public good. The current National Youth Anti-Drug Media Campaign is a case in point (Eddy 2003). Millions of dollars are being spent in this campaign

in an attempt to attenuate drug usage among the Nation's youth. Using mass media for this purpose may prove a risky strategy, however. Although mass media campaigns have at times been effective, for some topics (e.g., health promotion) (Atkin and Arkin 1990, Brown and Walsch-Childers 1994), the media sometimes are quite ineffective, resulting in large expenditures with no positive outcomes (Crano and Burgoon 2002). It has been suggested that many intervention failures are the result of a misdiagnosis of need (Selnow and Crano 1987). An approach widely recommended to avoid such problems is a needs analysis, in which the felt needs of the directly affected community are assessed in a scientifically rigorous manner (Crano and Brewer 2002). Information derived from needs analysis allows programs to be designed (or disseminated) to best serve affected publics, and such programs are almost invariably more successful than those programs that omit this step (Crano 2003).

The needs-analysis approach seems to be an appropriate way to address the interests of this study. We need to know how people from underserved ethnic/racial communities obtain information about recreation outlets, with special focus on the national forests. Researchers have only begun to study cultural and ethnic differences in self-exposure and responsiveness to media sources (Selnow and Crano 1987), however, and what little is known does not provide much comfort (Brodie et al. 1999, Crano and Burgoon 2002, Dennis and Wartella 1996, Hofstetter et al. 1995, Wolitski et al. 1996). Recent research on acculturation and responsiveness to media (Dawson et al. 1996, 2003) suggests that the most marginalized members of society are the **least** likely to profit from standard mass media social intervention programs. Why this is so is not clear, but it is reasonable to speculate that non-Whites may use different sources of information (compared to Whites) when learning about social programs and interventions (see, for example, Brodie et al. 1999 and Huerta and Weed 2000). To address this potential problem, the current study was designed specifically to assess the sources of information that non-Whites do use regarding recreation programs.

Method

Participants

Our approach involved surveying a large, randomly sampled group of people who we pre-identified (with some degree of certainty) as being of White, Latino, Asian, or African American descent. On the basis of census tract information (and, in the case of the Hispanic subsample, surname), we developed an initial respondent sampling frame. Our aim was to obtain responses from 200 adults from each of the

four ethnic/racial groups noted here (a total of 800 respondents). The interviewers requested information regarding race and ethnicity from respondents to ensure the accuracy of our categorization system.⁴

We selected participants from a random quota sample of phone numbers in Los Angeles County, California, yielding 195 Latino, 200 African American, 195 Asian, and 202 White⁵ respondents, all residents of the diverse Los Angeles (L.A.) Basin⁶ (Struglia et al. 2003). The mean age of these respondents was 47.98 years (SD = 19.60).

Interview

The telephone interview protocol included closed-ended questions designed to assess:

- Ethnic identity and fit of ethnic category
- Information sources regarding outdoor recreation opportunities (“Now I am going to name some common sources of information. I’d like you to tell me how frequently you use these sources of information about outdoor recreational opportunities,” included a list of 16 sources and a rating scale from 0 = never to 3 = very frequently)

Open-ended questions focused on:

- Sociodemographics (respondents’ immigrant status, their country of origin)
- Primary language spoken at home and primary language of reading materials at home
- Media usage
- Media preferences, television channel preferences, radio station preferences, newspapers/magazine preferences
- Most trusted source of information regarding outdoor recreation opportunities
- National forest visitation, and reasons for not visiting the national forests

⁴ The initial categorization was meant as a first step. The more direct assessment is used to pinpoint respondents’ ethnic/racial categories. The authors recognize the distinction between ethnicity (Hispanic, non-Hispanic) and race. However, in our effort to approach ethnic identity in meaningful, easily understood categories, we selected the four ethnic/racial groups indicated. This approach to categorization mirrors that frequently found in ethnic identity literature, and self-identification from our respondents affirmed selection of these labels as fitting their perceptions of self.

⁵ Variations from the planned N (of 200) came about as a result of missing data or, in the case of White respondents, because of a minor miscount that resulted in data being collected on 2 more respondents than planned.

⁶ These respondents provided complete information in the interview.

Procedure

A stratified random sample was not possible because ethnic/racial information was not available from respondents prior to their interviews. Consequently, following a random selection of phone numbers, quotas were applied so that phone surveyors would inquire regarding a participant's ethnicity near the beginning of the call. Seventy-three surveys (37 percent of Latino respondents and 9 percent of total respondents) were conducted in Spanish.

A total of 21,196 randomly sampled phone numbers were dialed at least once in obtaining the sample of approximately 200 respondents per group. The most common reasons for not completing a survey were no answer/answering machine/busy signal (9,136 phone numbers) and disconnected phone numbers (3,639 calls). A response rate was calculated including only phone calls that were eligible for surveying. This would exclude calls for which no one met ethnic or age (18 years and older) eligibility requirements, and phone calls for which no one was home or available to participate in the survey. There were 3,678 calls that met the eligibility criteria during which an individual was invited to participate in the study. Of these, 792 individuals completed surveys. By this criterion, the response rate was 21.5 percent. Surveys only partially completed (51 calls) were considered nonresponse. Data from incomplete surveys were not used.

Results

Sociodemographic Characteristics of the Four Groups

Respondent age differed by ethnic/racial group, $F(3, 773) = 27.67, p = 0.001$.

African American and White respondents ($M = 54.49, SD = 18.99, n = 190$ and $M = 53.36, SD = 19.74, n = 200$, respectively) were older than the Asian and Latino respondents ($M = 43.65, SD = 19.67, n = 192$ and $M = 40.26, SD = 15.94, n = 192$). Just over half (51.5 percent) of Latinos spoke primarily Spanish in their home, and almost half (47.4 percent) of Asians spoke a language other than English or Spanish in the home. The percentage of respondents living outside of the United States for a majority of their lives varied by ethnic/racial group as well (30.3 percent of Asians and 28.6 percent of Latinos had lived elsewhere, while only 4.5 percent of Whites and 2.0 percent of African Americans reported having lived elsewhere).

Perceived fit of ethnic/racial description differed by group as well $\chi^2(9, n = 757) = 35.532, p = 0.001$. Respondents identifying themselves as White felt the description fit them better than for the other groups (very well at 26.1 percent and perfectly at 70.9 percent), followed by Asian (27.3 percent selected very well and 57.2 percent selected perfectly), Latino (very well at 28.6 percent and perfectly at

54.7 percent), and African American respondents (very well at 33.5 percent and perfectly at 47.5 percent).

Media Usage

A comparison of the four ethnic/racial groups (Latino, African American, Asian, and White) on general media usage revealed significant differences in the number of hours per week that respondents watched television, $F(3, 788) = 5.87, p = 0.001$, and listened to the radio, $F(3, 787) = 4.86, p = 0.002$ (table 15-1). Differences by ethnic/racial group in hours spent reading magazines or newspapers per week were not statistically significant. For all four groups, television viewing had the highest average number of hours reported.

Television Viewing by Ethnic/Racial Group

African American respondents reported the greatest average number of hours per week watching television (20.03 hours, table 15-1), Asian respondents reported the fewest hours of television watching (13.05), and Latino (16.38) and White respondents' (16.70) viewing times fell between that of African American and Asian respondents. Hours of television viewing differed significantly by ethnic/racial group, with African Americans reporting significantly more hours than Asians (table 15-1).

Radio Listening by Ethnic/Racial Group

Latino respondents reported the greatest number of hours devoted to radio listening (14.48 hours, table 15-1), followed by African American (12.85) and White respondents (11.49). Asian respondents reported the least number of radio-listening hours (8.43). Hours listened to the radio differed significantly by ethnic/racial group, with Latinos reporting significantly more hours than Asians (table 15-1).

A comparison of the four ethnic/racial groups (Latino, African American, Asian, and White) on general media usage revealed significant differences in the number of hours per week that respondents watched television and listened to the radio.

Table 15-1—General media usage, by ethnic group

Media type	Latino	African American	Asian	White	ANOVA <i>p</i> level
	----- Mean number of hours per week (SD; <i>n</i>) -----				
Watch TV	16.38 (15.43; 195)	20.03 ^b (20.36; 200)	13.05 (14.33; 195)	16.70 (15.26; 202)	0.01
Listen to the radio	14.48 ^a (17.51; 194)	12.85 (18.23; 200)	8.43 (14.26; 195)	11.49 (14.58; 202)	.01
Read magazines or newspapers	5.44 (11.05; 194)	6.82 (10.0; 200)	7.02 (12.66; 195)	7.68 (12.07; 201)	.27

^a Significantly higher than Asians, based on Scheffe's test at $p < 0.01$.

^b Significantly higher than all three groups, each based on Scheffe's test at $p < 0.05$.

The range and types of radio stations listened to differed by ethnic/racial group. Summarizing only those categories with 10 percent or more within each ethnic/racial group (the full data on programming types reported is available upon request), Latinos were most likely to listen to ethnic radio stations (37.8 percent), rhythm and blues (R&B) programming (15.1 percent) or rock (10.5 percent), out of 304 reported stations, falling into 11 categories of programming). (The source for types of programming, call letters, frequency, description of station and geographic location was www.shgresources.com/ca/radio.) The majority of African American respondents reported listening to radio stations with R&B programming (51.2 percent), jazz (14.5 percent), or news/talk radio (13.7 percent), based on 248 radio stations reported, falling into seven categories. Asian respondents reported listening to news/talk (19.8 percent), adult contemporary (15.0 percent), top 40 (12.8 percent), R&B (11.5 percent), or rock radio stations (10.6 percent), based on 227 reported stations, falling into 12 categories. White respondents reported listening most often to radio stations with news/talk (25.8 percent), adult contemporary (14.0 percent), and rock (13.6 percent) programming, based on 279 reported stations.

Magazine/Newspaper Reading by Ethnic/Racial Group

There were no significant differences between ethnic/racial groups regarding time spent reading magazines or newspapers, $F(3, 786) = 1.31, p = 0.27$. The number of hours spent reading magazines or newspapers ranged between approximately 5 and 8 hours per week.

Types of magazines read were diverse and numerous. However, the titles reported by ethnic/racial group revealed that Latino and African American respondents read several magazines designed for an ethnically based audience. Among Latinos, approximately one-fifth (19.7 percent) of the magazines listed are designed for a Latino audience and many are in Spanish (these sources include *Tele Novela*, *Vanidades*, *Cosmo en Español*, *Latina*, *Mi Gente*, *Mira!*, and *Selecciones*). Among African Americans, more than one-third (43.4 percent) of magazines mentioned are designed for an African American audience (these sources include *Ebony*, *Essence*, *Jet*, *Black Enterprise*, and *Black Business Journal*).⁷

Respondents reported having read a number of different newspapers; however, the *L.A. Times* (63.3 percent of newspaper mentions), *La Opinión* (6.6 percent of newspaper mentions, 30.3 percent of Latino mentions), and the *L.A. Daily News* (6 percent of newspaper mentions) were the most frequently reported.

⁷ Readers wishing to see the full list of magazines reported within each group may contact the third author.

Sources of Information for Outdoor Recreation Opportunities

Respondents indicated their sources for outdoor recreation information (table 15-2). Responses were measured on a four-point Likert-type scale, ranging from “never” (0) to “very frequently” (3), resulting in ordinal variables; consequently, parametric tests may not have been appropriate. Table 15-2 presents significance levels for both parametric analysis of variance tests as well as the results of nonparametric Kruskal Wallis tests. Regardless of test, the pattern of results was consistent. The least relied upon sources of information about outdoor recreation opportunities for all groups were health care providers and billboards (table 15-2).

The results are generally consistent with the findings reported earlier on media usage. For example, African American respondents reported that television was a more frequent source of information than did the other ethnic/racial groups, whereas Asian respondents reported that television was less frequently used as a source of information about outdoor recreation when compared to the other ethnic/racial groups. Latino respondents reported that radio was a more frequent source of information on outdoor recreation activities than the other groups. There were no significant differences between groups in reliance for recreation information gathered from community organizations, neighbors, or other friends.

Other data regarding sources of information for outdoor recreation activities may facilitate our understanding of general media usage. There were no significant differences between groups in the number of hours spent reading magazines or newspapers. However, when asked about newspapers versus magazines separately, White respondents appeared to rely on newspapers for recreation information more frequently than did members of the other ethnic/racial groups (table 15-2). Whites reported significantly more reliance on newspapers than did African Americans and Latinos. There were no significant differences between the groups in reliance on magazines for information. There were no significant between-group differences on use of other reading materials (e.g., books and pamphlets).

Although there were no significant differences between groups in terms of their dependence on neighbors, work, or health care providers as information sources, significant differences between groups were found for reliance on computers, relatives, and billboards. Asian respondents reported significantly more frequent reliance on computers for information about outdoor recreation opportunities than the other groups (table 15-2). Latino and African American respondents reported more reliance on relatives than Asian and White respondents, although the Latino/Asian comparison was the only statistically significant difference. Finally, African American respondents also reported more frequent reliance on billboards than the other ethnic/racial groups (with the difference between African Americans

Table 15-2—Ethnic differences in the frequency of obtaining information about outdoor recreation opportunities from different sources^a

Information source	Latino	African American	Asian	White	ANOVA <i>p</i> level	Kruskall Wallis <i>p</i> level
----- Mean frequency rating (SD; n) -----						
Television	1.40 ^b (0.90; 193)	1.43 ^b (0.97; 200)	1.12 (0.94; 195)	1.25 (0.93; 200)	< 0.01	< 0.01
Radio	1.29 ^{b c} (0.96; 195)	1.19 ^b (0.99; 200)	0.91 (0.84; 195)	0.99 (0.96; 200)	< .01	< .01
Newspapers	1.14 (0.89; 195)	1.21 (0.99; 200)	1.24 (0.92; 195)	1.49 ^{d e} (1.01; 200)	< .01	< .01
Magazines	0.90 (0.92; 195)	1.10 (0.97; 200)	1.03 (0.90; 195)	1.13 (0.98; 200)	.07	.07
Billboards	0.68 (0.81; 195)	0.76 ^b (0.89; 200)	0.50 (0.67; 195)	0.61 (0.77; 200)	< .01	.04
Health care providers	0.53 (0.81; 195)	0.59 (0.86; 199)	0.48 (0.76; 195)	0.53 (0.78; 200)	.63	.77
Pamphlets	0.81 (0.84; 195)	0.95 (0.95; 200)	0.82 (0.81; 195)	0.92 (0.90; 200)	.29	.49
Books	0.71 (0.71; 195)	0.91 (0.96; 200)	0.88 (0.89; 295)	0.90 (0.99; 200)	.14	.09
Computers	1.12 (1.15; 195)	1.04 (1.11; 200)	1.62 ^{c d e} (1.17; 195)	1.25 (1.13; 200)	< .01	< .01
Relatives	1.25 ^b (0.92; 194)	1.22 (0.96; 200)	0.97 (0.93; 195)	1.06 (0.94; 199)	< .01	< .01
Church	0.71 (0.89; 194)	1.14 ^{b c d} (1.08; 200)	0.56 (0.85; 195)	0.63 (0.86; 200)	< .01	< .01
Church friends	0.65 (0.87; 194)	1.04 ^{b c d} (1.04; 200)	0.57 (0.82; 195)	0.70 (0.86; 199)	< .01	< .01
Neighbors	0.83 (0.87; 194)	0.89 (1.07; 200)	0.83 (0.96; 195)	0.80 (0.97; 200)	.80	.86
Work	0.79 (0.86; 194)	0.80 (0.91; 199)	0.68 (0.78; 195)	0.92 (0.94; 200)	.05	.11
Other friends	1.29 (0.91; 194)	1.27 (0.98; 200)	1.47 (0.93; 200)	1.38 (0.89; 200)	.12	.12
Community organizations	0.68 (0.86; 194)	0.90 (1.03; 200)	0.68 (0.81; 195)	0.79 (0.92; 200)	.05	.22

^a Respondents were asked how often they used each source of information, rating each on the scale where 0 = never, 1 = sometimes, 2 = frequently, and 3 = very frequently.

^b Scheffe's contrast significantly higher than Asians at *p* < 0.05.

^c Scheffe's contrast significantly higher than Whites at *p* < 0.05.

^d Scheffe's contrast significantly higher than Latinos at *p* < 0.05.

^e Scheffe's contrast significantly higher than African Americans at *p* < 0.05.

and Asians being statistically significant as shown in table 15-2), although the mean rating suggests minimal reliance on this as an outdoor recreation information source. Within the ethnic/racial groups, the most frequently reported source of information on outdoor recreation opportunities for both Latino and African American respondents was television. For Asian respondents, the most frequent source of information was computers, and for White respondents, the most frequent source of information was newspapers.

Respondents were asked which source of information they trusted the most for information about outdoor recreation opportunities. The greatest proportion of respondents chose the Internet and computers as their most trusted source (24 percent of all respondents listing a trusted source, table 15-3). However, some variations in trusted source by ethnic/racial group were found. For example, Latinos placed family and friends above the Internet as their most trusted source. The third-most trusted source among the groups was newspapers, although Latinos selected television in the same proportion as newspapers.

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Table 15-3—Ethnic differences in the trust of information source for outdoor recreation opportunities

	Total	Latino	African American	Asian	White
			<i>Percent</i>		
Computers/Internet	24.0	22.6	21.5	27.7	24.3
Family and friends ^a	18.9	23.6	18.0	14.8	19.3
Newspapers	12.4	13.8	11.5	8.2	15.8
Television	7.3	13.8	6.5	4.6	4.5
Magazines	3.0	0.5	3.0	4.6	4.0
Community organizations	1.8	1.5	2.5	1.5	1.5
Pamphlets	1.8	1.5	2.5	1.0	2.0
Books	1.8	1.5	0.5	1.5	3.5
Church	1.6	2.6	2.0	0.5	1.5
Radio	1.3	2.0	3.5	0	.9
Work	< 1.0	0.5	0.5	1.0	.9
Health care providers	< 1.0	0	0	0.5	.5
Billboards	0	0	0	0	0
Other source not listed	12.4	9.2	14.5	17.9	7.9
Don't know/no answer	11.0	6.6	13.5	15.8	11.4
N	792	195	200	195	202

^a Family and friends represents the combined responses to relatives, church friends, neighbors, and other friends.

National Forest Visitation

There were significant differences linked to ethnic/racial group in national forest visitation (had or had not visited), $\chi^2(3, n = 788) = 46.06, p < 0.001$. White respondents were most likely to have visited national forests (77 percent), followed by Asians (59 percent), Latinos (48 percent), and African Americans (48 percent) respondents.

Those who had visited national forests were asked, “In the last 12 months, approximately how many times did you visit the national forest?”; the median response was 1 time in the last 12 months. Testing via the median test statistic indicated that there were significant differences between ethnic/racial groups in response to this query, $\chi^2(3, n = 262) = 7.80, p = 0.050$. Of those who had visited the national forests, African American respondents traveled to the national forest the least frequently (31.0 percent of respondents were above the median), followed by Latino respondents (37.1 percent). White respondents (49.5 percent) and Asian respondents (54.7 percent) reported the most frequent visits to the national forests.

As reported, there were significant differences between the ethnic/racial groups in frequency of having previously visited the national forests. To establish whether respondents from the various groups were likely to utilize other outdoor resources at frequencies similar to their utilization of the national forests, respondents were asked to report one or more outdoor activities they had engaged in at locations other than the national forests. There were no significant differences among the groups’ responses, $\chi^2(3, n = 792) = 6.32, p = 0.097$. Although White respondents were most likely to have visited national forests, Latino respondents were most likely to have engaged in at least one outdoor activity in places other than national forests (90 percent, in comparison with 85 percent for White respondents). This result suggests that Latinos are not averse to outdoor activities; rather, they simply are less likely to go to the national forests to engage in them.

Barriers to National Forest Visitation

Among respondents who had reported visiting national forests, a variety of reasons were given for not visiting the forest more often. Barriers to more frequent visitation⁸ included time-related constraints (39.8 percent of the reasons listed, included either being too busy in general, or specific to family, work, or school responsibilities), a lack of interest (16.2 percent), health or physical limitations (9.5 percent), lack of transportation (7.2 percent), a lack of information about outdoor recreation

⁸ These responses went through content analysis procedures using the open-ended answers, developing a first round of categories, and then having an independent rater review category assignment.

opportunities (4 percent), distance to sites (4 percent), age (3.8 percent, discussed in terms of being too old to participate), a lack of money (3.8 percent), fear (2.3 percent, included fear of wild animals, getting lost, or being a victim of crime), no one to go with (2.0 percent), crowds (1.2 percent), and fire-related concerns (0.6 percent, including closures due to fire risk, fear of fire, or recent burns and loss of places to recreate).

An examination of the top five barriers to more frequent visitation to the national forests more frequently showed both differences and similarities among the four ethnic/racial groups (table 15-4). More than half of the reasons listed by Latinos were time constraints, while only about one-fourth of the reasons given by African Americans were time-related. African Americans were the most likely among the groups to mention a lack of interest, and were twice as likely as the other two groups of color to cite this reason. Health or physical limitations represented about one-tenth of the reasons provided by African Americans and Whites, about twice as often as reported by Latinos or Asians. A lack of information was one of the top five reasons among all three groups of color. Lack of money was among the top reasons given by Whites and Latinos. African Americans and Whites cited age. Asians were the only group to list no one to go with among their top five. Fear-related concerns were only among the top five reasons for African Americans.

Table 15-4—Top five barriers to National Forest visitation by ethnic group

Ethnic group	Ranking of barriers ^a				
	First	Second	Third	Fourth	Fifth
Latinos	Time	Transportation	Lack of interest	Lack of information/ health or physical limitation	Lack of money
<i>Percent</i>	52	10	8	5	4
African Americans	Lack of interest	Time	Health or physical limitation	Transportation	Fears/age/lack of information
<i>Percent</i>	26	23	14	10	4
Asians	Time	Lack of interest	Too far	Lack of information/ health or physical limitation	No one to go with
<i>Percent</i>	47	13	9.4	6	5
Whites	Time	Lack of interest	Health or physical limitation	Lack of money	Age
<i>Percent</i>	37	17	12	7	6

^a Multiple entries appear in cells when more than one type of barrier was listed by the same proportion of respondents in an ethnic group.

Discussion

These findings offer many interesting and potentially useful insights for the resource manager interested in making the national forests more available to the population at large. These results, consistent with expectations based on earlier studies (e.g., Johnson et al. 2001, Scott et al. 2004, Tierney et al. 1998) revealed that White respondents were significantly more likely than the other groups to report having visited a national forest in the past, whereas African Americans and Latinos were significantly less likely to have done so, and Asian respondents were intermediate to these groups. This same pattern was found in our analysis of the number of times in the past 12 months that respondents had traveled to the national forests.

In addition to differences in participation rates among the groups, this study also assessed respondents' general media consumption patterns. Assessment of media consumption patterns disclosed strong and statistically significant differences among the groups. The results of the present investigation suggest that television might be the most optimal means to reach African Americans when choosing among forms of media, whereas for Latinos, radio might prove a more optimal medium of mass information diffusion.

The variations in outlets, and specific outlets within media type add an additional layer of complexity. Findings suggest that ethnic media would be an effective means of contacting our non-White respondents. A reliance on ethnic media was also reported in Winter et al. (2004) among Asian Americans in the San Francisco Bay Area. Tailoring the outlet to meet the needs of ethnic/racial minorities seems appropriate based on our findings.

Respondents' reports of sources of information they would trust the most lead to an additional recommendation for forest managers. Community networks may be an effective means of information dissemination, based on our finding that family and friends were the most trusted source among all four ethnic/racial groups studied. African American respondents favored interpersonal methods of information search. For example, relatives, church, and church friends were significant sources of information for African American participants; only Latino respondents were comparable in terms of their dependence on relatives for information. In a number of studies, onsite recreationists reported family and/or friends as their primary source of information about recreation opportunities and the recreation setting where they were contacted (Chavez 2001, Parker and Winter 1998). Latinos typically have a greater proportion of reliance on family and friends as their primary source of information than do Whites and other ethnic/racial groups. The prior onsite studies cited had too few African Americans to be able to draw conclusions about reliance on relatives and friends, making the present study particularly valuable.

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The overall expressed trust in the Internet and computers as the most frequently cited source among three of the four respondent groups may lead one to conclude that the Internet is the ideal venue for contacting potential recreationists (Latinos chose family and friends instead). A national survey on Internet users and nonusers suggests that the Internet is more important than other forms of media as an information source (Lebo 2004). However, a cautionary note should be added here about the Internet as a primary and trusted source of information. Research on access to the Internet suggests that non-Whites are less likely to use the Internet (particularly Latinos and African Americans) than are Whites (Spooner 2003). The bulk of non-Internet users report that they do not use the Internet because of a lack of a computer, or lack of a computer good enough to access the Internet (Lebo 2004). Findings are inconsistent regarding actual levels of use of the Internet and access to the Internet. Lebo (2004) reported that over three-fourths of Americans use the Internet, whereas Spooner (2003) suggested that number is just over half of American adults (59 percent of males and 54 percent of females used the Internet in 2001). Geographic differences may also account for the high trust of the Internet expressed in this study, where L.A. basin residents may have greater access than found in other regions of the United States.

The concern over geographic differences in Internet use extends to other outlets as well. It would be important to examine use of ethnic and mainstream media on a broader scale, outside of the L.A. basin, to ensure that a portion of the findings cannot be attributed to the types and range of media available to our respondents. Additionally, the response rate suggests some caution, particularly because we were unable to conduct a nonresponse bias check. We would need to be sure that our participants were not uniquely different from those unwilling to participate in a telephone survey in some way that would be associated with media use or national forest visitation.

Conclusions

This study was undertaken to assess ethnic/racial differences in forest visitation and to determine media consumption differences that might have relevance to forest use. The results reported here should prove useful in delivering messages targeted to the specific interests and the specific media used by one or another of the groups studied here. The analyses provide useful information for the manager interested in getting the word out about outdoor recreation opportunities and subsequently influencing the rates at which people of various ethnicities take advantage of national forest recreation opportunities in southern California. The data on media usage, especially preferences for ethnic media, are generalizable across recreation

opportunity venues in the L.A. basin, so that managers of natural resource settings outside of national forest lands may also learn from these results. Findings suggest that managers in other geographic areas might also consider use of ethnic media and community networks for outreach to diverse publics.

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