

OUTDOOR RECREATION BEHAVIORS AND PREFERENCES OF URBAN RACIAL/ETHNIC GROUPS: AN EXAMPLE FROM THE CHICAGO AREA

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Abstract: A study of outdoor recreation preferences and behavior of Non-Hispanic White Americans (n=618), African Americans (n=647), and Hispanic Americans (n=346) in Cook County, Illinois was conducted in early 1999. Respondents were contacted in a phone survey using random digit dialing and a quota for each group. Important similarities and differences were found among these three groups in their participation in 43 activities and use of 20 places. In addition, gender, age, education, income, residence, and household size helped explain outdoor recreation preferences and behavior. Results reported here reinforce the need to avoid stereotyping particular groups or using simple explanations of their outdoor recreation behavior.

Introduction

With increasing racial/ethnic diversity of the U.S. population, researchers continue to work to identify the outdoor recreation preferences and behaviors of racial/ethnic groups. This research in turn helps resource managers to better meet the needs of their diverse customers. One limitation of past studies on this topic has been that they have often relied on data gathered for other purposes. The result has been small sample sizes and limited information on which to base the analyses (For example, see Dwyer 1992, Dwyer 1993, Dwyer 1994, Dwyer and Gobster 1992, Dwyer and Hutchison 1990).

We set out to break with this pattern by intentionally oversampling particular racial/ethnic groups in order to obtain a large enough sample of respondents to make statistically valid statements about their outdoor recreation preferences and behaviors. This oversampling technique was achieved by using a quota sample of residents of Cook County, Illinois which includes the city of Chicago. Due to space limitations in the proceedings, this article focuses on presenting descriptive data on the groups' recreation preferences and behaviors and only takes a first step toward making more in depth interpretations and recommendations. Additional information is available from the authors and will also appear in forthcoming publications.

The Sample

We wanted to sample urban Whites (non-Hispanic), African Americans, Hispanic Americans, and Asian Americans from the general population using a brief telephone survey that would focus on participation in a wide range of outdoor recreation activities and use of a number of diverse places. We chose this over an on-site survey since we wanted to learn about both participants and non-participants. Obtaining a representative sample of Asian Americans proved to be a major challenge because of their small numbers in the general population. Therefore, in this study we ended up not including a quota for Asian Americans. The Hispanic sample was difficult to obtain, even with Spanish speaking interviewers. Getting respondents from each group would have been easier if we were willing to target our sampling on neighborhoods where particular groups were concentrated. We chose not to do this in light of past research results suggesting that individuals who live in neighborhoods where a single group predominates have different recreation preferences and behavior than those who live in more diverse neighborhoods (Klobus-Edwards 1981). We decided to focus on Cook County, which includes Chicago (3 million residents) and its nearby suburbs (2.5 million residents) because of its diverse population. We used random digit dialing with a quota for each racial/ethnic group. Heads of households were surveyed, alternating between males and females. Our sample targets were 600 Whites (non-Hispanic), 600 African Americans, and 300 Hispanic Americans. Our final sample included 618 Whites, 647 African Americans, and 346 Hispanic Americans.

The Survey Instrument

The survey instrument was patterned closely after the Illinois SCORP (Statewide Comprehensive Outdoor Recreation Participation) Survey that is conducted every few years by the Illinois Department of Natural Resources, and which we have used for previous analyses (such as Dwyer 1992, Dwyer 1993, Dwyer 1994, Dwyer 1995, Dwyer 1996, Dwyer 2000, Dwyer and Gobster 1992, and Dwyer and Hutchison 1990).

Respondents were first asked about their participation in 43 different activities using the question, "In the past 12 months, did you go ...?" We asked, "When you go to a public outdoor recreation area in Illinois, (including city, county, state, federal parks and forests) with whom do you usually go?" Seven response categories were provided. Respondents were asked about 19 site attributes through the question, "In order to plan for all kinds of public outdoor recreation areas in Illinois in the future, how important is it to you that a public outdoor recreation area you visit (READ ATTRIBUTE -- e.g., "is safe from crime")?... Would you say very important, somewhat important, or not important?"

We asked the level of naturalness (i.e., lack of development) people preferred for outdoor recreation with the question, "Which one of the following statements most closely describes why you use public outdoor recreation

areas in Illinois?" Four response options were read to respondents. Importance of outdoor recreation was determined with the question, "In general, how important to your everyday life are outdoor recreation opportunities ... would you say very important, somewhat important, not too important, or not at all important?"

Finally we asked respondents where they went for outdoor recreation. In one question we asked, "In the past 12 months, about how many times would you say you went to public outdoor recreation areas outside Illinois?" Following this we asked about whether or not people had visited each of 20 different places located in Chicago, Cook County, surrounding counties, and the Shawnee National Forest in Southern Illinois. Basic demographic information gathered included race/ethnicity, zip code, age, gender, income level, education level, and number of people in the household.

Demographic Differences Across Racial/Ethnic Groups in the Sample

There were significant differences among the samples for the three racial/ethnic groups in the following characteristics: gender, age, location of residence, education, income, and household size. African Americans had the highest proportion of females interviewed (62%), followed by Hispanics (58%), and Whites (54%). A chi-square test indicated the proportions were significantly different for the various groups ($p < .05$). Mean age for respondents was lowest for Hispanics, while Whites had the highest ages on average (Table 1). Individual respondents were assigned to one of five areas in Chicago and Cook County based on their zip code (Table 2). Whites predominated in the northern suburbs and to a lesser extent in the southern suburbs and northern Chicago. African Americans heavily predominated in the southern part of Chicago, and to a lesser extent in central Chicago. Hispanic Americans did not predominate in any area, but made up their largest share of the sample in central and northern Chicago. Whites on average had the highest levels of education and income, and Hispanics the lowest (Tables 3, 4). Hispanics had the largest average household size and Whites the smallest (Table 5).

Comparisons of Participation Across Groups

Simple comparisons were made across groups for participation in 43 diverse outdoor activities and use of 20 diverse places (Tables 6, 7). Our goal was to look for patterns of similarities and differences between groups across the wide range of activities and places that are important to urban residents seeking outdoor recreation opportunities. Significant differences in participation were measured between racial/ethnic groups in 33 of 43 activities and 13 of 20 places.

Among the general patterns of similarities and differences across groups was that Whites were significantly more likely than the other two groups to participate in activities that required a natural environment, such as tent camping and downhill skiing. Whites were also significantly more

likely than the other two groups to use places outside of Chicago, such as Chain-O-Lakes State Park (Lake County), Morton Arboretum (DuPage County), and Chicago Botanic Garden (far north boundary of Cook County). These areas are accessible to significant concentrations of the White population.

African Americans were significantly more likely than the other two groups to use some places in Chicago, to include Grant Park, Museum of Science and Industry, and Garfield Park Conservatory. Hispanic Americans were significantly more likely than the other two groups to visit Lincoln Park Zoo in Chicago. These areas are accessible to significant concentrations of the respective populations.

We estimated logistic regression models to explain participation in each of the 43 outdoor recreation activities and use of each of the 20 places in terms of race/ethnicity, gender, age, location of residence, education, income, and household size. When all of these variables were included in the analysis, we identified significant differences between racial/ethnic groups in participation in 27 out of 43 activities, and use of 14 out of 20 places. This is a slight reduction in the number of significant differences in activities between racial/ethnic groups identified when only race/ethnicity was considered; but an increase in the significant differences in uses of places over those identified when only race/ethnicity was considered. Space limitations preclude presenting the logistic regression models in this paper. However, the models correctly classified 58 to 99 percent of the respondents with respect to their participation in 43 outdoor recreation activities. Logistic regression models correctly classified between 59 and 97 percent of the respondents with respect to their use of the 20 outdoor recreation places.

The contribution of various demographic variables to the ability of the model to classify participants and non-participants varied a great deal across activities and places. Female gender had a positive correlation with participation in walking for pleasure and gathering plants, as well as visiting Lincoln Park Zoo and the Chicago Botanic Garden; but a negative correlation with participation in many sports and activities that generally use wild or remote sites as well as use of Montrose Point in Lincoln Park. Age had a negative correlation with participation in athletic activities; but a positive correlation with observing wildlife and gardening; as well as visiting a large number of places. Household income had a positive correlation with participation in a wide range of activities and the use of some places; but never had a significant negative correlation with participation in an activity or use of a place. Education had a significant positive correlation with participation in most activities and use of most places. Place of residence factored in to participation in that proximity of residence to particular places was positively correlated with use of some of those places. For example, participation in ice skating was associated with residence in central Chicago.

Preferences

All groups reported that outdoor recreation was important to them, with the Hispanic American and African American respondents reporting the highest levels of importance (Table 8). Whites were significantly less likely than other groups to prefer highly developed facilities in outdoor recreation areas, while African Americans were the most likely to prefer developed facilities (Table 9). Hispanics were in-between the two other groups, with slightly over half (55%) of respondents preferring highly developed facilities. This is consistent with findings of an earlier study that included interviews with Hispanics about their preferences at a picnic area in the San Bernardino National Forest (Chavez, Larson, and Winter 1995). The patterns in preferences for the three groups mirror activity participation patterns as well as the use of selected places.

Respondents evaluated a list of 19 site attributes with respect to their importance (Table 10). Attributes were then rank ordered for each group based on the mean importance score. The rankings were relatively similar for all three racial/ethnic groups, with safety, cleanliness, restrooms, and drinking water the four most important site attributes. There were also some notable differences in rankings between groups. For example, Whites differed from the other two groups in placing a higher rank on the lack of crowding and the presence of a lake or river; but a lower rank on organized events and educational talks. These patterns are consistent with other study findings that indicated Whites preferred natural areas and less development at sites. Asked, "Who do you go with to public outdoor recreation areas in Illinois?" Hispanic Americans were the most likely to report that they recreate in a group that included adults and children in the family (Table 11). Although the proportion of respondents indicating they went with church/social groups was small, African Americans were the most likely of the three racial/ethnic groups to recreate in Church/social groups. Perhaps a tendency to recreate in family/church/other social groups is associated with outings that tend to be relatively close to home and where large groups can easily gather. Hispanics tended to take the fewest number of trips out of state for outdoor recreation ($\bar{m}=1.7$), followed by African Americans ($\bar{m}=2.5$). Whites took the most trips averaging 6.3 out of state trips for outdoor recreation per year (t-tests indicated significant differences between groups at $p<.05$).

Table 1. Comparison of Age Distribution Reported by Racial/Ethnic Groups (in percent).¹

Age Range	White	Black	Hispanic
17-25	8	10	17
26-39	26	32	52
40-55	32	30	25
56-65	16	13	4
66-91	17	14	2

¹Chi-square test indicated significant differences ($p<.05$).

Table 2. Comparison of Area of Residence Reported by Racial/Ethnic Groups (in percent).¹

Area	White	Black	Hispanic
N Suburbs	72	18	10
N Chicago	50	14	36
Ctrl Chicago	18	43	39
S Chicago	13	82	5
S Suburbs	55	31	14

¹Chi-square test indicated significant differences ($p<.05$).

Table 3. Comparison of Education Level Reported by Racial/Ethnic Groups (in percent).¹

Education Level	White	Black	Hispanic
< High School Graduate	7	14	40
High School Graduate	16	16	23
Trade School	6	7	4
Some College	23	36	15
College Degree	25	14	10
Some Graduate School Graduate Degree	4	2	2
	20	11	5

¹Chi-square test indicated significant differences ($p<.05$).

Table 4. Comparison of Household Income Level Reported by Racial/Ethnic Groups (in percent).¹

Income	White	Black	Hispanic
< 15K	10	19	26
15K-25,999	13	17	31
30K-39,999	19	24	23
40K-59,999	21	19	13
60K-79,999	15	10	5
80K-99,999	10	6	3
100K+	12	5	1

¹Chi-square test indicated significant differences ($p<.05$).

Table 5. Comparison of Mean Household Size Reported by Racial/Ethnic Groups.¹

Race/Ethnicity	Mean	% of Households with four or more residents
White	2.7	11
Black	3.1	18
Hispanic	4.2	42

¹T-tests indicated significant differences ($p<.05$).

Table 6. Comparison of Participation in Selected Outdoor Recreation Activities By Racial/Ethnic Groups (in percent).¹

Activity	White	Black	Hispanic
Walk	75++	67-	58-
Zoo	59+	46-	61
Picnic	47	51	46
Drive	51+	46	40-
Bike	47++	37-	40-
Sport spectator	46++	31-	34-
Garden	44++	30-	21-
Pool Swim	45++	23-	32-
Run	30	30	29
Basketball	20--	30+	30+
Arboretum	39++	18-	22-
Observe Wildlife	33++	2-	19-
Non-Pool Swim	34+	14-	32
Baseball	21-	31+	23
Volleyball	17--	22+	23+
Fish	24++	16-	15-
Nature Center	30++	10-	12-
Golf	27++	10-	9-
Hike	24++	8-	9-
Tennis	14	14	12
Tent Camp	18++	9-	12-
Motorboat	21++	7-	5-
Ice Skate	15++	8-	9-
Rollerblade	14+	7-	10
Soccer	8-	6	24+
Horses	9	8	6
Gather Plants	9	8	8
AT Vehicle Use	9	6	6
Volunteer Plant tree	6	7	6
Canoe	11++	3-	7-
RV Camp	7+	4-	8
Rock/Fossil hunt	7+	4-	5
Backpack	6	5	5
Downhill Ski	8++	3-	4-
Vol. Clean River	6+	6	2-
Sail	7++	4-	3-
Water Ski	7++	1-	2-
Vol. Ecol. Restore	3	3	2
X-Country Ski	5++	1-	2-
Hunt	3+	3	1-
Ice fish	3++	1-	1-
Snowmobile	3+	1	1-
Trap	-	-	0

¹+Significantly higher than one other group at p<.05.

- Significantly lower than one other group at p<.05.

Table 7. Comparison of Use of Selected Outdoor Recreation Places By Racial/Ethnic Groups (in percent).¹

Place	White	Black	Hispanic
Grant Park	63+-	72++	50--
Mus. Sci/Indust.	52+-	59++	45--
Brookfield Zoo	50	52	51
Lincoln Park Zoo	45--	53+-	60++
Field Museum	48	51	45
Shedd Aquarium	45-	52+	50
Lincoln Park Conservatory	25	25	31
Chicago Botanic	30++	24-	23-
Indiana Dunes	25	24	21
Garfield Park Conservatory	10-	33++	9-
Montrose Point	20+	14--	20+
Morton Arboretum	22++	7-	7-
Illinois Beach SP	14+	12	10-
Chain O Lakes SP	23++	6-	6-
North Park Vill Nature Center	6	4	4
Shawnee NF	6+	4	3-
Morain Hills SP	5	3	2
Goose Lake PR	4	3	3
Midewin NTGP	2-	4+	3
Ryerson Woods	4+	3	1-

¹+Significantly higher than one other group at p<.05.

- Significantly lower than one other group at p<.05.

Table 8. Comparison of Importance of Outdoor Recreation Reported by Racial/Ethnic Groups (in percent).¹

Importance	White	Black	Hispanic
Very	40	50	62
Somewhat	43	39	34
Not too	13	8	4
Not at all	5	4	1

¹Chi-square test indicated significant differences (p<.05).

Table 9. Comparison of Response to the Question, "Which one of the following statements most closely describes why you use public outdoor recreation areas in Illinois?" Reported by Racial/Ethnic Groups (in percent).¹

Statement	White	Black	Hispanic
To enjoy undeveloped natural surroundings with no facilities	7	4	11
To enjoy undeveloped natural surroundings with limited facilities	53	23	32
To enjoy nature and recreation with highly developed facilities	33	66	55
Do not use Illinois outdoor recreation areas	7	8	3

¹Chi-square test indicated significant differences (p<.05).

Table 10. Importance Rankings of Outdoor Recreation Site Attributes By Racial/Ethnic Groups.

Site Attribute	White	Black	Hispanic	ALL
Safe from crime	1	1	2	1
Clean/maintained	2	2	1	2
Restrooms	3	3	4	3
Drinking water	4	4	3	4
Parking	5	5	5	5
Nature/scenery	6	7	6	6
Picnic facilities	8	6	7	7
Not too crowded	7	10	13	8
Close to home	11	12	9	9
Self-guided nature trail	10	14	11	10
Educational talks	14	8	8	11
Lake or river	9	15	14	12
Nature center	12	13	10	13
Organized events	17	9	12	14
Paved trails	15	11	15	15
Unpaved trails	13	17	17	16
Guided hikes	16	16	16	17
Fishing	18	18	18	18
Boat launching	19	19	19	19

Table 11. Comparison of Response to the question, "Who do you go with to public outdoor recreation areas in Illinois?" reported by Racial/Ethnic Groups (in percent).¹

Who do you go with?	White	Black	Hispanic
Adults in the family	20	11	16
Children in the family	8	13	11
Adults & children in the family	35	43	58
Church/Social group	1	4	1
Friends	28	20	12
No one/Alone	5	6	1

¹Chi-square test indicated significant differences (p<.05).

Summary and Conclusions

Our samples of White (non-Hispanic) American, African American, and Hispanic American residents of Cook County Illinois had significant differences in gender, age, education, income, residence, and household size; all of which can have implications for outdoor recreation preferences and behavior. These variables and race/ethnicity in a logistic regression model help explain participation in 43 outdoor recreation activities and in the use of 20 selected outdoor places.

Important similarities across the three racial/ethnic groups include the attachment of a high level of importance to outdoor recreation (especially high for the Hispanic and African American groups), and the high level of importance of safety, cleanliness, and drinking water at the areas where they recreate. Important differences between racial/ethnic groups include the specific activities engaged in, places used, preferences for site development and programming, who accompanied individuals in their recreation activities, and number of outdoor recreation trips taken out of state.

The sample generated for this study suggests that urban racial/ethnic groups are complex and differ along a number of significant demographic dimensions. Their outdoor recreation preferences and behavior are diverse and complex. This diversity and complexity should inform the development of policies, programs, and plans for providing important outdoor recreation opportunities for urban populations; as well as future research. Care should be taken to avoid stereotyping particular groups or using simple explanations of their outdoor recreation behavior.

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