

Chapter 4: Constraints to Leisure Travel and Visitation to Natural Areas: An International Comparison of Four Cities

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Abstract

Leisure travel and visitation to natural areas and constraints to undertaking these activities are important concerns for recreation resource managers and tourism businesses. Surveys were administered to Los Angeles, Barcelona, Glasgow, and Morelia, Mexico, residents to ascertain leisure travel and undeveloped natural area visitation levels and constraints. A comparison of these cities with abundant nearby natural resources shows significant differences in leisure travel and natural area visitation levels. Differences were attributable to respondent demographic disparities and importance of visitation constraints. The study identifies how cultural values produce significant differences in visitation constraints and use of undeveloped natural areas.

Keywords: Recreation, natural areas, cross-cultural, constraints, visitation, international.

Introduction

Natural areas, such as national and state forests, parks, wildlife refuges, and open space preserves located outside of cities, are some of the most popular recreation destinations. Few studies have compared visitation and travel constraints to natural areas among residents of international cities to learn if there are substantive differences. International comparisons might be useful to determine if natural area use patterns and constraints are unique to certain countries and culturally based, or if they are more universal. Such information could provide resource and tourism managers with information to help them more effectively market and manage their services.

Numerous studies have investigated constraints to visitation of recreation and natural areas (Carr and Williams 1993, Driver and Peterson 1986, Dwyer 1994, Jackson 1988, Pinhey and Iverson 1994, Shinew et al. 2004, Sonmez and Graefe 1998). Findings of these studies were used to identify salient outdoor recreation constraints. For example, Norman (1995) identified over 25 common barriers to

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outdoor recreation. Also, in an earlier study, Tierney et al. (2000) compared vacation travel patterns of Hong Kong and Los Angeles residents. Johnson et al. (2001) analyzed recreation constraints by gender, race, and rural residence. They found gender was significant, but that race and rural residence were not significant predictors of constraints. Martin (2004) found that certain racial and ethnic groups are more comfortable in certain environments, and there is the potential for discrimination if a group is unfamiliar with areas. However, more information is needed to see if differences in natural area visitation and constraints exist among countries.

The current paper compares residents of Barcelona (BAR), Spain, Glasgow (GLS), Scotland, Los Angeles (LA), California, and Morelia (MOR), Mexico metropolitan areas on their leisure travel patterns, constraints, and visitation to undeveloped natural areas (UNA). One purpose was to determine whether or not there are international similarities in visitation and constraints to visiting natural areas, or whether social and cultural environments contribute to differences in natural area visitation and constraints.

Barcelona, Glasgow, Los Angeles, and Morelia were selected for this research because they are large, cosmopolitan metropolitan areas and have numerous natural areas, such as national forests and parks, within 100 kilometers. For example, the city of Morelia, located northwest of Mexico City with a population of about one-half million persons, has numerous nearby protected natural areas, including a national park, geysers, and archeological sites. The overall goal of the research was to gather and compare data from four international metropolitan areas about resident leisure travel and visitation to UNAs.

Methods

Telephone surveys and personal interviews were used to ask respondents about their leisure trips away from their home during the previous summer (May-August). If they took a trip, respondents were asked if they participated in a vacation, described as “work free periods of 4 or more consecutive days where most time was spent in leisure activities.” The survey next asked persons who took a leisure trip if they visited a UNA. Visits to UNAs were defined as “trips to places located outside of cities where you visited natural areas, such as national or state parks, forests, nature preserves or protected areas. These areas could have campgrounds and cabins, access roads, visitor centers, trails or an occasional farm.” Respondents were asked to agree or disagree with 16 statements about constraints to visiting natural areas, developed from past research (Driver and Peterson 1986, Norman 1995, Tierney et al. 1998).

Demographic data collected included respondent age, education, gender, and having children under 18 years living at home.

Data for the Los Angeles part of the research came from Tierney et al. (1998) who used a telephone survey of LA City and County adult residents. A stratified random sample was developed to oversample and acquire large enough sample sizes from four ethnic groups: Whites, African Americans, Asian Americans, and Latino Americans. The interviews were available in English, Spanish, and Mandarin. A similar but shortened survey was used in BAR, GLS, and MOR. Local recreation experts (professors at adjacent universities) translated the survey, designed the sampling, administered the data collection, and assisted in data interpretation. These partnerships were needed to ensure internal validity of the survey, comparable data collection methods, and accurate interpretation of survey results.

The data collection methods in BAR, GLS, and MOR were modified from the LA approach because of issues related to using telephone surveys in those countries. Personal interviews were used instead. The survey used a systematic sample of three districts that represented high-to-low socioeconomic levels in the metropolitan area. Districts were identified, and then neighborhoods were selected that were representative of the district. Next, trained surveyors visited every other residence in the selected neighborhoods and attempted to administer the personal interview.

In LA, 894 telephone surveys were completed, 310 in-person interviews were obtained in BAR, 359 in GLS, and 257 in MOR, resulting in a total of 1,820 usable surveys. The response rate to the LA telephone survey was 29 percent; response rate for personal interviews was 79 percent in BAR, 68 percent in GLS, and 74 percent in MOR.

Cross-tabulations with Chi-square and Z-tests were used to test for significant differences in taking a leisure trip, visiting natural areas, and demographic variables. Exploratory factor analysis of constraint data for respondents who did not visit a UNA was used to identify a smaller number of constraint aggregations for this subpopulation. Factor analysis used the principal components extraction with equimax rotation.

Results

Demographics

Findings indicate that there were substantial demographic differences among respondents of the four survey sites (see table 4-1). There were differences across countries by age, gender, marital status, parents born in the country, education level, and child at home. For example, MOR and BAR had more respondents in the 18 to 34 age group than did GLS and LA.

Table 4-1—Respondent demographic characteristics by site

	Barcelona (n = 310)	Glasgow (n = 359)	Los Angeles (n = 894)	Morelia (n = 257)	Probability ^a
----- Percent -----					
Age:					0.000
18–34	55.1	21.6	49.2	56.9	
35–44	24.5	28.9	23.5	20.0	
45–54	10.2	29.8	11.6	12.1	
55 or more	10.2	19.7	15.7	11.0	
Gender:					.000
Male	50.6	52.4	44.6	33.7	
Female	49.4	47.6	55.4	66.3	
Marital status:					.000
Single	38.1	28.2	42.4	44.6	
Married	22.9	59.9	45.6	61.3	
Divorced	31.6	3.4	6.7	2.3	
Separated	1.6	4.0	2.0	2.3	
Widowed	2.9	4.5	3.3	3.1	
Parents born in country:					.000
Yes	80.0	51.9	68.5	97.3	
No	20.0	48.1	31.5	2.7	
Education level:					.000
Grade school	13.2	1.7	4.6	16.5	
High school	46.8	44.5	30.2	42.4	
Technical school	12.9	44.5	30.2	42.4	
College	25.5	39.4	48.6	2.0	
Grad school	1.6	0.0	11.7	11.4	
Child at home:					.000
Yes	26.6	49.0	43.5	50.6	
No	73.4	51.0	43.5	56.5	

^a Chi-square test of significance for each subtable of sociodemographic variable by four survey sites.

Leisure Trips and Vacations

Table 4-2 shows that BAR respondents were far more likely to have taken a leisure trip away from home during the summer (88 percent), compared to GLS (73 percent), LA (54 percent), and MOR respondents (44 percent). Almost all BAR and GLS respondents who took a leisure trip also took a vacation of 4 or more consecutive days (97 percent and 93 percent), which was much greater than LA (68 percent) and MOR (58 percent) respondents.

Visits to Undeveloped Natural Areas

Respondents were also asked if they visited a UNA for any period during the prior summer. Table 4-3 shows that when comparing respondents who took a leisure trip, BAR respondents were more likely to visit a UNA (72 percent) compared to MOR

Table 4-2—Took a leisure trip and vacation, by site

	Barcelona (n = 310)	Glasgow (n = 359)	Los Angeles (n = 894)	Morelia (n = 257)	Probability ^a
----- Percent -----					
Took leisure trip:					0.000
Yes	88.4	72.9	53.9	44.1	
No	11.6	27.1	46.1	55.9	
Took vacation ^b :					.000
Yes	96.7	92.7	67.6	58.4	
No	3.3	7.3	32.4	41.6	
Visited natural area outside cities ^b :					.000
Yes	71.5	30.7	32.4	65.2	
No	28.5	69.3	67.6	34.8	

^a Chi-square test of significance among four survey sites based on original cell frequencies (not shown).

^b Only respondents who took a leisure trip are included in this analysis.

Table 4-3—Visitation to an undeveloped natural area, by site

	Barcelona	Glasgow	Los Angeles	Morelia	Probability ^a
Visited natural area outside cities: Those who took leisure trip					0.000
Yes	71.5	30.7	32.4	65.2	
No	28.5	69.3	67.6	34.8	
Visited natural area outside cities: All respondents					.000
Yes	63.2	21.8	32.4	28.5	
No	36.8	78.2	67.6	71.5	

^a Chi-square test of significance among four survey sites.

(65 percent), LA (57 percent), and GLS respondents (31 percent). When comparing all respondents, 63 percent of BAR respondents, 32 percent of LA, 29 percent of MOR, and 22 percent of GLS respondents visited a UNA.

Comparisons by Demographic Characteristics

Table 4-4 illustrates that age and marital status were generally not significantly related to visitation to a UNA for the four survey sites, except for age in BAR. Gender was moderately related to UNA visitation at BAR and LA, with males being more likely to visit than females. In GLS, LA, and MOR, education was highly related to UNA visitation. The higher the educational level, the greater the likelihood of visitation to natural areas.

Table 4-4—Probability levels associated with cross-tabulations of visiting a natural area, by demographic characteristics (Chi-square test of significance)

	Barcelona	Glasgow	Los Angeles	Morelia
Age	0.017	0.611	0.491	0.523
Education	.084	.002	.000	.000
Gender	.034	.267	.015	.407
Marital status	.052	.302	.054	.374

The overall most frequently mentioned constraints were “my family and friends do not visit UNAs,” “my financial situation,” “lack of free time,” “lacked information on where to go and what to do,” and “want more workers of my ethnicity.”

Constraints

Constraints for travel and visitation to UNAs and a comparison of responses from the four study sites are shown in table 4-5. The overall most frequently mentioned constraints were “my family and friends do not visit UNAs” (42 percent of all respondents strongly agreed or agreed), “my financial situation” (39 percent), “lack of free time” (34 percent), “lacked information on where to go and what to do” (33 percent), and “want more workers of my ethnicity” (23 percent). The least frequently mentioned constraints among all respondents were “UNAs are uncomfortable” (17 percent), “do not feel welcome” (17 percent), “no interest in visiting UNAs” (14 percent), “people like me are discriminated against when traveling” (14 percent), and “not healthy enough to travel” (9 percent).

The percentage of respondents who strongly agreed or agreed with a constraint statement differed by survey site. For example, more than half (51 percent) of GLS versus 22 percent of BAR respondents agreed that their friends and family do not visit natural areas. The Z-test of proportions provided a test of the significance for the maximum difference (range) among cities. Results show that the range of responses for each constraint differed markedly and independently of the absolute magnitude of the ratings above. For instance, the variables “my financial situation prevented travel” (range of 60.8 percentage points) and “lack transportation” (53 percentage points) had the greatest difference and were the second and seventh highest rated overall. Other constraints had a relatively low range among sites, such as “not healthy enough” (4.8 percentage points), and “no nearby UNAs” (9.5 points). The percentages for each of the 16 constraints were significantly different among the four study sites.

Four factors emerged from an exploratory factor analysis conducted on constraint data for respondents who did not visit a UNA. First, items with low communalities and inconsistent relationships were dropped and the remaining nine items were factored. Table 4-6 shows that Eigenvalues for the factor dimensions ranged from 1.0 to 2.1 with a total of 62.1 percent of the variance explained. The factor accounting for the most variance was called “Feel unwelcome and unsafe,”

Table 4-5—Constraints for travel and visitation to undeveloped natural areas (UNAs) for all respondents from each country (percentage who strongly agree or agree)

	Barcelona (n = 310)	Glasgow (n = 355)	Los Angeles (n = 858)	Morelia (n = 243)	All (n = 1,766)	Range	Probability ^a
	----- Percent -----						
Family or friends do not visit UNA	21.9	50.9	48.2	29.8	41.6	29.0	0.000
My financial situation	27.4	12.4	43.2	73.2	38.6	60.8	.000
Lack of free time	25.5	33.5	52.1	49.4	33.6	26.6	.000
Lack information	23.9	24.5	39.0	36.5	33.2	15.1	.000
Want more workers of my ethnicity	43.6	11.0	36.1	32.9	32.0	32.6	.000
UNA too crowded	10.7	7.6	43.7	43.9	30.9	36.3	.000
Lack transportation	17.8	14.9	27.9	67.9	29.2	53.0	.000
Normally go to UNA but wanted variety	10.6	7.4	39.2	16.5	23.0	31.8	.000
UNAs are unsafe	22.5	6.5	23.3	31.8	22.0	25.3	.000
No nearby UNA	16.5	19.7	23.8	14.3	20.1	9.5	.000
No companions	15.1	13.8	25.9	15.6	20.1	12.1	.000
UNA uncomfortable	9.1	14.1	18.4	28.8	17.4	19.7	.000
Do not feel welcome	10.6	1.7	16.7	48.7	17.2	47.0	.000
No interest in UNA	13.2	19.4	15.1	6.7	14.3	12.7	.000
Discriminated against	5.8	2.8	18.5	23.1	13.9	20.3	.000
Not healthy enough	10.3	5.9	10.7	8.0	9.3	4.8	.001

^a Z-test to determine probability of significance of range (maximum difference) across cities.

Scale: 1=strongly disagree, 2=disagree, 3=neither disagree or agree, 4=agree, 5=strongly agree.

Table 4-6—Factor analysis results of natural area visitation constraints scale for respondents who did not visit a natural area (all survey sites; n = 861)

Item statement	F1	F2	F3	F4
F1—Feel unwelcome and unsafe				
Discriminated against	0.76			
Do not feel welcome	.75			
Undeveloped natural areas are unsafe	.63			
F2—Want more ethnic workers				
Normally go to UNA, wanted variety		0.88		
Want more ethnic workers		.65		
F3—Lack opportunity				
No companions to travel with			0.82	
No nearby natural areas			.78	
F4—Have time but no interest				
Lack free time				-0.79
No interest in visiting UNA				.67
Eigenvalue	2.1	1.3	1.2	1.0

had three constraint items (“Discriminated against,” “Did not feel welcome,” and “UNAs are not safe”), and explained 19.6 percent of the variance. The second factor was named “Want more ethnic workers” (var = 15.1 percent), and it included “Normally go to UNA but wanted variety” and “Want more workers of my ethnicity.” The third factor was called “Lack opportunity” (var = 14.17 percent) and had the barriers of “No companions to travel with” and “No nearby natural areas.” The final factor was called “Have time but lack interest” (var = 13.3 percent) and it consisted of only two constraints “No interest in visiting UNA” and a negative value for “Lack free time.”

Discussion

International research comparisons present large challenges, but this study attempted to increase validity by using similar survey instruments translated into three languages (English, Spanish, and Mandarin) by researchers who live in the study areas and are familiar with leisure travel and natural area visitation in BAR, GLS, LA, and MOR. Survey responses were translated and results were reviewed by these bilingual recreation experts to ensure accuracy. Despite efforts to make the research as comparable as possible, the findings may be affected by some differences in survey wording, data collection methods, and interpretation of results. We do not know the impact of these differences.

The focus of the study was on visitation and constraints to visiting UNAs. A much larger percentage of BAR and GLS respondents took a leisure trip away from home during the summer compared to LA and MOR respondents. This suggests there are large constraints to leisure travel in both LA and MOR. Findings also indicate leisure and vacation travel is more of a cultural norm in BAR, GLS, and LA. In BAR and other countries in Europe, the average citizen gets 30 days paid vacation in addition to three other 5-day holiday periods per year. The average in LA is about 2 weeks paid vacation, often taken as a 1-week holiday and then several long weekends. Paid vacation is much less common in MOR.

There is broad interest in visiting natural areas by residents of all four cities, with more than three-quarters of respondents having a desire to visit UNAs. However, a much smaller number actually visited a UNA. Almost two-thirds of BAR respondents visited a UNA compared to about one-third of LA respondents, one-quarter of MOR respondents, and about one-fifth of GLS respondents. Much of this was due to respondents who had severe travel constraints and did not take a leisure trip. However, BAR respondents were still more likely to visit UNAs compared to respondents from the other cities, when only considering those respondents who took a leisure trip. There is strong interest in visiting natural

areas by MOR respondents, but severe constraints are hindering many from taking leisure trips.

Demographic characteristics of respondents were also shown to influence the likelihood of visiting UNAs. Gender, and in particular, respondent education level significantly affected UNA visitation.

These findings indicated that overall perceived constraints to visiting UNAs differed considerably among study areas. Personal time, economics, information, lack of interest, and access constraints were present. An overall comparison of constraint scores from the four study areas suggested that the types of factors limiting visits to natural areas were similar among the four cities, but the importance or degree of the constraint differed widely. The most highly rated constraints overall were “Friends and family do not visit UNAs,” “My financial situation,” “Lack of free time,” and “Lack of information.” The results from Z-tests of proportions indicated considerable variation in the level of influence a specific constraint had on respondents from each study site. These findings suggest there are unique cultural bases for the varying impact of some constraints. For example, the greatest constraints for MOR were “UNAs are unsafe,” “Financial situation,” and “Lack of transportation,” but these were very different from the mean values for the same constraints according to the BAR respondents. The implications for managers are that they can start to address the most powerful constraints, but they will need to conduct additional research to identify other constraints prevalent in their specific region.

Factor analysis of responses from respondents who did not visit a UNA revealed four constraint clusters: “Feel unwelcome and unsafe,” “Want more ethnic workers,” “Lack opportunity,” and “Have time but lack interest.” It is important for forest and park managers to understand these four “universal” constraint factors and try to mitigate their impact through planning, management actions, and interventions. Findings also reinforce the need for agency outreach efforts, some of which are already underway, to help overcome respondent feelings of being unwelcome, UNAs being unsafe, and lacking opportunity. Introductory outdoor recreation programs with peers that are sponsored or supported by land management agencies working with ethnic organizations, such as churches, to recruit urban residents who do not normally visit natural areas is strongly supported by study findings.

This research, through a comparison of four international cities with a similar abundance of nearby natural resources, illustrates a large number of cross-cultural similarities in leisure travel and use of natural areas. But, it also demonstrates how cultural values produce significant differences in visitation constraints and use of UNAs.

The implications for managers are that they can start to address the most powerful constraints, but they will need to conduct additional research to identify other constraints prevalent in their specific region.

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