

GENDER, ETHNICITY, AND SPECIAL POPULATIONS

ETHNICITY AND RECREATION: PROBLEMS WITH CONCEPTS AND A NEED FOR NEW APPROACHES

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Abstract: Over the past thirty years, recreation/leisure researchers have grappled with concepts regarding ethnicity, race and recreation. Past research has suffered from methodological and operational inconsistencies. This paper offers a review of previous research involving ethnicity and recreation.

Variables used in previous studies are re-examined and reconceptualized to reflect a richer construct of ethnicity: subcultural identity. In addition to the reconceptualization of variable operationalization, this paper provides a framework that identifies the important factors to consider when researching ethnicity and recreation, and the relationships between these factors.

Development of the Ethnicity and Marginality Theories

Washburne's 1978 seminal study initiated the current paradigm regarding the ethnicity and marginality theories' approach to studying ethnic/racial phenomenon with respect to recreation and leisure settings. Since then, problems have occurred in operationalizing major concepts, and consequently, in measuring the two phenomena. As such, this study provides a context for the development of both the marginality and ethnicity theories. This study also provides a critique of the literature regarding ethnicity/race and recreation and alternative approaches for studying the phenomenon.

Washburne (1978) provided leisure researchers with the conceptual definitions for ethnicity and marginality (as explanations for Black underparticipation in wildland recreation). "The *marginality* perspective [suggests] that Blacks do not participate because of poverty and various consequences of socioeconomic discrimination ..." (Washburne, 1978, p. 176). As an alternative explanation to the marginality perspective, Washburne maintained "... that leisure patterns of Blacks are based on their subcultural style, or *ethnicity*" (*Ibid.*, p. 177).

Note that the original definition of ethnicity referred to "subcultural style." Consequent studies treated ethnicity as synonymous with race or ethnic group designation. This is a deviation from Washburne's initial conception of ethnicity as subcultural style, and has different meanings in the wider social science literature (West, 1989). The implication is subtle. The focus should not be on the ethnicity of particular persons, but rather the identification

that people have towards a culture which is different from the dominant culture.

Sex, age, education, and income were the variables used to measure socioeconomic status in Washburne's study. Blacks and Whites were compared. However, the ethnicity perspective was not examined, only the marginality perspective. Washburne did not consider researching the ethnicity perspective on the grounds that there was inadequate data suitable "... for a realistic examination of ethnicity as a valid perspective" (1978, p. 185).

Washburne found that Blacks are constrained by marginality factors. However, he also mentioned that leisure differences between Blacks and Whites "are not solely attributable to socioeconomic factors", and later forecasted "declining utility for the marginality perspective" (1978, p. 179). The implications of his findings were ambiguous at best. While firmly establishing a logical argument for the ethnicity and marginality perspectives, his conclusions were inconclusive. This set the stage for consequent studies in the 1980s.

Researchers in the 1980s (Hutchison, 1987; Klobus-Edwards, 1981; Stamps & Stamps, 1985; West, 1989; and Woodard, 1988) utilized the marginality and ethnicity theories and designed their studies to answer the question of which one of the two theories was correct. Various researchers provided support and mixed results for both theories. Support for the ethnicity theory came from Klobus-Edwards (1981) and Stamps and Stamps (1985). Support for the marginality theory came from Woodard (1988) and West (1989). Mixed results regarding support for marginality and ethnicity came from Hutchison (1987). In the latter part of the 1980s, and particularly in the early 1990s, leisure/recreation researchers heralded a new era regarding research on minority groups and leisure settings. The focus was altered from determining which one of the two theories is correct to "accepting" either one of the two theories, or embracing a combination of the two theories and concentrating on other matters. These "other" matters included the following:

- utilization of other minority groups that were not Black for points of comparison (Chavez, 1993; Hutchison, 1987; Floyd, Gramman & Saenz, 1993);
- creation of projection models, use of demographics, and the determination of future demand (Christensen & Dwyer, 1994; Dwyer, 1993, 1994; Murdock, Backman, Hoque & Ellis, 1991; Murdock, Backman, Colberg, Hoque & Hamm, 1990);
- use of observational techniques were included in the research (Hutchison, 1987);
- critique of the literature, as well as general reviews were more prominent (Allison, 1988; Dwyer & Gobster, 1992; Gramman, 1996; Hutchison, 1988; Johnson, Bowker, English & Worthen, 1997);
- definitions of race and ethnicity were debated upon (Hutchison, 1988);
- identification of other factors such as discrimination, family generations, and neighborhood residence (Phillip, 1994, 1997; Taylor, 1992; West, 1989);

- and the corroboration of subjective/qualitative measures and objective/quantitative measures (Allison, 1988; Carr & Williams, 1993; Floyd, et al., 1994; Woodard, 1988)

Throughout the various studies noted above, marginality and ethnicity have been measured in different ways. The problem with the different approaches to measurement is that they have not allowed for true comparisons between studies because of two things: (1) different methodological approaches, and (2) the different operationalization of the same variables.

Variables measuring marginality have been approached very differently from Hutchison's earlier conception. Woodard (1988), for example, looked at marginality in terms of "classism," which (borrowing from E. Franklin Frazier) he defined as "the belief that one should only recreate with one's own social class group" (p. 94). Floyd, et al.'s, (1994) approach to marginality treated social class in "subjective terms" (p. 162).

The variables measuring ethnicity were consequently divided into race variables and ethnic variables (recall that this is a deviation from earlier studies lumping ethnic and racial groups under one category). Taylor (1992) looked at ethnic expression and participation in ethnic leisure activities as measures of ethnicity. Carr and Williams (1972) considered ethnicity in terms of three dimensions: (1) ancestral origin, (2) generational status, and (3) language ability.

In addition to variable operationalization issues, Meeker, Woods & Lucas (1973) mentioned the effect that past injustices and discrimination had on Blacks' recreational behavior. However, it wasn't until 1989 that West noted that discrimination was not looked at as a variable affecting use of public spaces by minorities (Blacks in particular). Discrimination, therefore, was added as a theoretical explanation for minority underparticipation in leisure settings:

These two paradigms - marginality and subculture theory - have dominated the thinking and research about minority underrepresentation in outdoor recreation. However, it is a strange irony that this body of research has almost entirely ignored another important potential explanation: the problem of interracial relations and prejudice (West, 1989, p. 12).

West uses "subcultural theory" in lieu of ethnicity theory because he believed that Washburne's initial conception and theoretical assumptions (regarding ethnicity) were closer to the conception of subcultural life preferences. West's measure of subcultural preference was operationalized as "no interest" or "prefer to do other things". In other words, preference or non-preference indicated ethnicity factors. However, West noted that the "measures of subcultural influence ... [were] less robust than other measures" (1989, p. 17). This indicates that a more complex measure of cultural preference is needed.

Although West did measure discrimination, he did not consider the possibility of an interaction between subculture and marginality. Conversely, Hutchison (1987) mentioned that Black and White differences could be due to a complex interaction between race and class, but he did not measure the interaction, nor did he consider the role of discrimination. Lack of attention on the nature of these relationships is due to a confluence of assumptions underlying the research variables, an ahistorical approach to dealing with race and ethnicity, and inadequate measures of the concepts under study.

Race and Ethnicity: Is a Distinction Needed Between the Two?

In the recreation literature, perhaps the most critical argument that has surfaced is the need for distinction between race and ethnicity. Hutchison's (1988) critique of the race/ethnicity literature regarding leisure-recreation research was an excellent exposition on the inadequacies of the marginality and ethnicity perspectives. In particular, he noted that race and ethnicity "... have been used interchangeably without careful definition of either concept, even though the implied association between race and ethnicity contradicts research in race and ethnic relations" (Hutchison, 1988, p. 11). Hutchison, a sociologist by training, makes a critical observation: some leisure/recreation researchers are ahistorical in that they do not research enough of the wealth of information available on race relations in the sociological literature to provide a proper context.

However, the question that needs to be asked is: does it matter? The answer is yes and no. It matters that leisure researchers familiarize themselves with such things as Jim Crow laws, (racial) restrictive covenants, and developments in federal and municipal policy which helped to reinforce racial cleavages in urban settings. "By 1970, after two decades of urban renewal, public housing projects in most large cities had become black reservations, highly segregated from the rest of society and characterized by extreme social isolation" (Massey & Denton, 1993, p. 57). Given this pattern, one has to question whether or not Blacks have similar social patterns as compared to Whites. Having a sense of the history of race relations might provide some insight into why Blacks don't want to participate in the same public leisure space as Whites.

Although it is important that leisure scientists understand the development of the race "issue," and put it in its proper context when researching racial/ethnic matters, it is not as important to distinguish between race and ethnicity for empirical results to be relevant. Race groups are defined, in the sociological sense, in terms of their phenotype (e.g., hair texture, skin color, and facial features). Ethnic groups are defined as identifying with a particular culture (real or imagined). Although Hutchison (1988) points out that historically there is a difference between the two terms, he failed to note that within the discipline of sociology, there are two schools of thought on this issue.

Theorists who have compared race and ethnicity may be divided into two camps:

those who underscore the likeness of the concepts and those who view them as sufficiently dissimilar to warrant distinct perspectives and policies. To proponents of racial and ethnic similarity, distinction between the two concepts are frequently seen as based on definitional differentiation. In other words, distinguishing between the two concepts has validity only as an exercise in differentiating between what are merely theoretical constructs. Distinctions between Race and Ethnicity therefore, it is argued, are untenable and without empirical support (Singh, 1981, p.2).

This supports the view that racial and ethnic groups could be viewed together. While Blacks (a racial minority group) are different from other (ethnic) minority groups, given their slavery past, they are similar to other minority groups in that they are marginalized (economically, politically, socially, etc.) in some fashion. Again, the question is: does it matter?

This study contends that it is much less important to stress the difference between race and ethnicity (unless one is specifically researching a race versus ethnicity issue), then it is to stress the importance of the difference between minority (marginalized) groups and majority (dominant) groups: Whites and non-Whites. Given current demographic changes, identified by Dwyer (1993), it will be increasingly important to look at minority groups (regardless of racial or ethnic makeup) and how they differ from mainstream (majority) America, with respect to recreation behavior. The central concern, therefore, should not be one of definition, but rather one of applicability and practicality.

Inadequate Measures of Race and Ethnicity

Given the above discussion, it is easy to see why the categorical scale is inadequate for measuring a complex variable such as ethnicity or race. Race and ethnic categories have been too limiting. Although leisure researchers have identified respondents as Black, White, Hispanic, etc., they do not know the extent to which the respondents (pertaining to a particular category) identify with their respective culture(s). For example, how afrocentric is the Black respondent? "Afrocentricity espouses the belief that images and symbols derived from African and African American life experiences are necessary and appropriate guides for people of African descent" (West, 1994, p. 28).

Therefore, the more afrocentric Blacks are, the more likely they are to be exposed to African American literature, music, history, and dance. Conversely, the less afrocentric Blacks are, the more likely they are to reflect mainstream values and participate in mainstream pursuits. A more complicated measure of cultural identification (versus a categorical approach) is needed in order to gauge the extent to which respondents identify with their respective cultures.

Moving Forward

The Journal of Leisure Research dedicated an entire issue (1998, volume 30) to minority recreation and leisure. This special issue is the most current collection providing a critique of previous research. Of particular interest is the introduction by Myron F. Floyd and the article by Karla Henderson. Floyd (1998) noted:

Perhaps the most critical issue currently facing the race and ethnic studies literature is the absence of viable theoretical frameworks. In general, little systematic thought has been directed at race and ethnic issues ... three theoretical explanations have historically been used ... the marginality hypothesis, the ethnicity or subcultural hypothesis, and perceived discrimination (pp. 4-5) scholarship on race, ethnicity and leisure will advance if past approaches are reconsidered and alternative theoretical and methodological possibilities are explored.

Henderson (1998) noted:

One of the problems researchers encounter is the tendency to examine subjects or participants as simply one characteristic when all of us are more complex than simply being female or white or able-bodied.

The suggestion by both researchers is that there is a need for (1) more complex forms of measurement, and (2) an integrative approach to reflect the interrelationships between these different phenomena.

Alternative Approaches to Studying Minority Recreation

A construct versus a variable approach. A call for new approaches has been issued by researchers. One such approach is to look at a construct (conceptual) approach versus a variable approach in order to understand the relationships between sub-cultural differences and public leisure participation. In order to synthesize past research, this investigation looked at the variables which were used to measure particular phenomena related to ethnic recreation.

In addition to previously used variables, underlying constructs are normally mentioned by researchers (or assumed) but never specifically addressed. These concepts and variables were typically measured so that one can see the nature of the relationship among (single-item) variables and the dependent variable: leisure participation. The problem with this approach is that it does not take into account influences which the independent variables exude on each other, i.e., a multidimensional (multi-factorial) approach. As a result, researchers often fall short of understanding or identifying the minority recreation phenomenon.

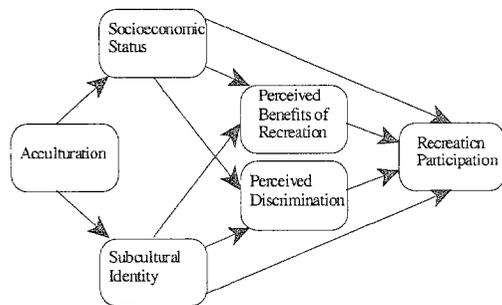
Identification of constructs from past research. From the past 30 years of research involving minorities and recreation, the researcher has identified five major constructs which have been implied or mentioned as having an impact on participation in public recreation settings. These five factors are:

- Socioeconomic status,
- Subcultural identity,
- Perceived benefits of recreation settings,
- Perceived discrimination, and
- Acculturation.

The Development of a Model: An alternative framework

Given the aforementioned conceptual review, the current investigation seeks to create a model which identifies major concepts, and considers how these concepts are (inter)related. Figure 1 illustrates the relationships between the following factors: Acculturation (ACC), Socioeconomic status (SES), Subcultural identity (SID), Perceived Benefits of Recreation (BEN), Perceived Discrimination (DIS), and Recreation Participation (REC). The Ethnicity and Public Leisure Participation Model (EPLPM) illustrates several of the components reviewed in the literature. The following sections detail the purpose for the inclusion of each factor.

Figure 1. The Ethnicity and Public Leisure Participation Model



The EPLPM is a causal model. It reflects the literature's support of these concepts and how each concept relates to others. Acculturation is believed to measure one's level of assimilation into the dominant culture. The causal arrows extend to both socioeconomic status and cultural identification. The underlying assumption is that acculturation occurs when one is born. Acculturation differs slightly from Floyd, et al.'s (1993) conception. Rather than occurring simultaneously with socioeconomic variables and cultural identification, it is conceptualized as a precursor to SES and SID.

The stronger one's level of acculturation (cultural distance) the stronger one will identify with a minority culture. Conversely, if one's level of acculturation is weak, then the socioeconomic status will be higher. For example, if one speaks fluent English, the prospect of a higher paying job is

increased. This causal relationship reflects acculturation theory.

Following the arrows, one can see a direct relationship between socioeconomic status and recreation behavior. This relationship is hypothesized by the literature. It reflects the marginality theory. The arrow from subcultural identity to recreation behavior reflects the ethnicity theory.

Subcultural identity also has two intervening constructs which are perceived discrimination and perceived recreation benefits. Perceived Recreation Benefits was used as an intervening variable because it was thought that perceived benefits of a recreation activity will affect actual participation in the activity. The recreation benefits construct incorporates Klobus-Edwards (1981) motivation for recreation participation as a precursor to actual participation. Motivations or perceived benefits derived from participation in a recreation activity is based on one's cultural perspective.

For example, there are two parks, and one has a football game and the other has a baseball game. If one asks a Puerto Rican participant which he/she would prefer to go to, the odds are that he/she would pick the baseball game over the football game because football is not a national sport in Puerto Rico, and baseball is one. Following the causal model, the motivation (watching baseball) for going to the park (passive recreation) is influenced by one's culture (Puerto Rican).

Perceived discrimination reflects the use of the discrimination perspective. It is obviously affected by one's subcultural identity. The stronger one considers him/herself a member of a minority group, he/she will have a stronger perception of discrimination. This then affects recreation behavior because the perception of discrimination may act as a deterrent to participation in recreation activities.

Note the relationship between SES and SID. In the literature, there is no support as to which construct influences the other. There is support for showing that there is a relationship. However, the direction of the relationship is still to be determined. The ambiguity of the relationship is made explicit by the curved arrow connecting SES to SID.

Conceptually, one can see that there are both direct, indirect, and spurious effects that influence recreation behavior. The EPLPM exemplifies a multiple causation model. The indirect, spurious, and direct effects combine to provide a more comprehensive picture of the relationships and interrelationships of the different concepts mentioned in the literature regarding ethnicity and recreation behavior.

The EPLPM reconceptualizes the previous research by offering an alternative framework. This framework is much more involved than the traditional marginality-ethnicity framework and incorporates other factors

identified as critical in the assessment of ethnic groups and recreation behavior.

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SIMILARITIES AND DIFFERENCES IN THE OUTDOOR RECREATION PARTICIPATION OF RACIAL/ETHNIC GROUPS: AN EXAMPLE FROM ILLINOIS

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Abstract: Much of the initial research on the outdoor recreation participation of racial/ethnic groups focused on between-group differences in percent participating in an activity. This tended to focus research, policy, and management on between-group differences at the expense of a more comprehensive look at the participation patterns of racial/ethnic groups. This paper suggests a more comprehensive approach that focuses on similarities as well as differences between groups along several dimensions of participation. It also looks at participation rates while taking into account age, residence, household income, gender, and household size.

Introduction

Much of the early research on the outdoor recreation participation patterns of racial/ethnic groups focused on between-group comparisons of activity participation rates (i.e., percent of the group participating in an activity) (Cheek et. al. 1976; Miller and Guerin 1962; Washburne 1978). That research has been effective in pointing out to managers and planners the need to consider different approaches to meeting the outdoor recreation needs of particular racial/ethnic groups. However, the research presented a less than comprehensive picture of the participation patterns of racial/ethnic groups (including similarities and differences).

We are moving into the new millennium where we anticipate a great deal more racial/ethnic diversity in the U.S. population. In order to address the recreation resource management issues associated with these changes, it seems appropriate to consider broadening and extending our analyses of the participation patterns of racial/ethnic groups. What follows are several suggestions for looking at outdoor recreation participation that can lead to new and better insights into outdoor recreation participation patterns by racial/ethnic groups. In a number of instances these suggestions are illustrated using random phone interviews with Illinois residents in four separate years (1987, 1989, 1991, and 1996), a total of 3,966 individuals.

Considering a Wider Range of Racial/Ethnic Groups

The range of racial/ethnic groups considered should be wider than in the past where much of the attention was given to comparison of African Americans and Whites.

Census projections suggest important increases in a wide range of racial/ethnic groups in the years ahead. To the extent possible, future analyses should include Whites, African Americans, Asian Americans, Hispanic Americans, Native Americans, and other important racial/ethnic groups. The small sample size for some racial/ethnic groups in general surveys of the population makes it difficult to learn very much about these groups. In some instances it may be desirable to sample a higher proportion of the population for some groups.

Using census definitions for racial/ethnic groups has the advantage of providing linkages to census data and projections; but there may also be reasons for using other definitions as well, to include sub-groups of census categories. Census definitions of groups facilitate the use of cohort-component projection models for predicting future participation by racial/ethnic groups (Dwyer 1995). With the Illinois data the definitions of racial/ethnic groups did not strictly follow census definitions. Hispanic was considered a separate racial/ethnic category, where the census definition considers Hispanic as an ethnic group that can include individuals from all races.

Incorporating New Ways of Looking at Participation Rates

In comparing participation rates among groups it may be useful to look beyond simple comparisons of activity participation rates to (1) the ranking of activities by percent of the group participating, (2) average number of activities engaged in by members of the group, and (3) percent of the group that does not participate in any of the activities. Rankings of activities by the percent of the group participating are often similar across racial/ethnic groups. The significant between-group differences in activity participation rates are often with those activities that rank towards the bottom of the list for all groups in terms of percent participating. Thus examination of activity rankings helps put in perspective differences and similarities in group activity participation rates. It may also be helpful to look at the average number of activities that each group engages in, as well as the percent of each group that reports no participation in any of the activities being considered. This will provide an indication of the breadth of activity participation by particular groups, and avoid the tendency to (1) focus attention on activities where there are significant differences in participation, or to (2) characterize groups by their differences from others. Looking at participation rates from different perspectives such as those outlined above can provide a more comprehensive view of the similarities and differences in participation patterns than will be the case with just pointing out significant differences in percent participating in activities.

Comparisons of outdoor recreation participation rates for pairs of racial/ethnic groups by Illinois residents (i.e., the traditional approach) reveal significant differences that span 25 out of 30 activities (Table 1). This appears to represent a large number of significant differences that span

a sizable portion of the activities. However, other interpretations may be made using alternative approaches. Significant differences in participation rates between pairs of racial/ethnic groups are limited to 58 out of the 270 comparisons that were made, or just slightly more than one out of five. This puts a somewhat different perspective on the comparisons between racial/ethnic groups. Widely ranging sample sizes might have complicated the pattern of results. In some instances small sample sizes may have limited our ability to detect significant between-group differences. Additional data may reveal more significant differences between groups. In other instances, large amounts of data may have made it more likely that small differences between groups are reported as significant.

When outdoor recreation activities were ranked in order of percent participating within each racial/ethnic group, the rankings were similar across groups. Pleasure walking, pleasure driving, and picnicking were ranked in the top three in all but the "other" category, which had a small sample size. When the mean number of activities engaged in by individuals in each racial/ethnic group are compared (footnote of table 1) there is little variation among groups (means range from 5 to 6 activities). When we look at the percent of each group that reports it engages in none of the 30 outdoor activities (footnote of table 1), the results range from 4 to 9 percent of the individuals in each group. In both of the above instances, Whites tended to have the highest participation; but the differences between groups are not particularly striking. Once again, moving beyond focusing on significant differences in activity participation rates between groups reveals a substantial amount of similarities in participation patterns between groups. This is a useful context in which to view the significant differences that are found, and to develop comprehensive outdoor recreation policies and programs.

Looking at Average Number of Days of Participation by Those Who Participate

When racial/ethnic groups are compared in terms of the average days of participation by activity participants, differences between groups are often much smaller than

what was observed with activity participation rates. Bringing this perspective into the analysis of participation focuses the question of between-group differences more on the question of who participates in an activity rather than the amount of activity by participants. Comparisons of days of participation by participants from each group are often difficult to make for many activities, given the small number of participants on which to base comparisons.

When we look at average number of days that Illinois participants engage in an activity across racial/ethnic groups (Table 2), the differences do not appear to be as large or the patterns as regular as with percent of the group participating in an activity (Table 1). Across the 30 outdoor recreation activities, the group with the highest mean days of participation in an activity varies widely. This pattern may be due, in part, to relatively small sample sizes for participants from some of the racial/ethnic groups. This is a reflection of small numbers of individuals from these groups in the sample, in conjunction with their low participation rates in some activities. This may call for more intensive sampling of some groups.

The mean days of participation across all 30 activities (footnote of table 2) suggests that individuals in each of the racial/ethnic groups engage in a significant amount of outdoor recreation activity. What differs most between groups is the percent of the group that participates in particular activities. The mean days of participation across all activities by racial/ethnic groups ranges from a high of 39 for African Americans a low of 27 for Asian Americans (footnote of Table 2). The African American group, which has the highest average days of participation, is the group with the smallest average number of activities participated in. In this instance, the relatively high numbers of days of participation by African American participants more than outweighs their lower group activity participation rates. Average days of participation in pleasure walking and pleasure driving by African American participants were especially high relative to other groups. These are two activities where participants often had a large number of days of activity (Table 2).

Table 1. Recreation activities of Illinois adults, percent participating by race

Activity	White (3230)	Black (484)	Hispanic (145)	Asian (84)	Other (23)
Pleasure walking	75+	69-	70	69	70
Pleasure driving	65+	54-	61	61	44
Picnicking	53	55	65+	67+	30--
Outdoor pool swimming	48+	29--	46+	33	57
Bicycling	43	40	43	41	39
Non-pool swimming	31+	12--	34+	23	39
Fishing	30+	15-	21	19	26
Softball or baseball	24--	37+++	41+++	14--	30
Motorboating	28+++	6-	11-	10-	17
Running or jogging	28	34	38	42	44
Golf	23+++	7-	10-	11-	9
Tennis	14+-	16+-	18+	32+++	9
Outdoor basketball	16--	25+	30+	24	22
Tent camping	15+	5--	11	19+	4
Hiking	18+	7-	14	14	4
Water skiing	12++	1-	6	4-	9
Off-road vehicles	11+	8+	11+	1--	26
Horseback riding	9	11	10	5	17
Ice skating	11+	4-	10	14	17
Canoeing	9+	2--	6	16+	9
Downhill skiing	9++	2-	2-	8	4
Vehicle camping	9+	4-	7	5	4
Sailing	7	5	5	6	9
Hunting	7+++	3+-	2-	0--	9
Cross-country skiing	5+++	1-	2	1-	0-
Snowmobiling	4+	0-	5	1	4
Soccer	4-	3-	14++	6	9
Backpacking	4	4	8	8	13
Ice fishing	3++	1-	1	0-	4
Trapping	1+++	0	0-	0-	4

+Significantly higher than one other group at the 0.05 level

-Significantly lower than one other group at the 0.05 level

% who do not participate in any activities	3.7	8.9	5.5	4.8	4.3
Mean number of activities participated in	6.2	4.6	6	5.6	5.8

Table 2. Recreation activities of Illinois adults, mean number of days of activity for participants, by race

Activity	White (3230)	Black (484)	Hispanic (145)	Asian (84)	Other (23)
Pleasure walking	85	104+	86	61	95
Pleasure driving	30-	49++	36	22-	22
Picknicking	7	5	7	9	14
Outdoor pool swimming	27+	12-	19	60	34
Bicycling	33	30	22	30	28
Non-pool swimming	16+	6-	12	9	9
Fishing	20+	11	13	4-	13
Softball or baseball	17	19	11	15	7
Motorboating	17++	6-	12	4-	22
Running or jogging	70	73	57	61	112
Golf	22++	10-	9-	9	48
Tennis	17+	17+	18	35+	3---
Outdoor basketball	18	61	26	19	26
Tent camping	7+	8	5+	2--	10
Hiking	9+++	10	6-	4-	3
Water skiing	16	4	18	3	35
Off-road vehicles	40+	27+	93+	25	48
Horseback riding	20+++	7-	3-	4-	21
Ice skating	8+	5	2-	4	10
Canoeing	9	3+	2	1-	2
Downhill skiing	25+	6	2-	4	
Vehicle camping	12++	6	6+-	3--	4
Sailing	14	3	4	3	2
Hunting	28+++	14-	7-		48
Cross-country skiing	5++	2-	2-		
Snowmobiling	17		12	15	
Soccer	20++	2-	18	8	7-
Backpacking	7+++	19	6	2-	3-
Ice fishing	23	5	3		1
Trapping	12	20			30

+Significantly higher than one other group at the 0.05 level

-Significantly lower than one other group at the 0.05 level

Mean days for all activities	31	39	28	27	38
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Looking at Total days of Participation to Determine Percent of Market for an Activity

It may also be useful to look at total days of participation for a given activity by each racial/ethnic group to see what component of the current market each group makes up. This gives a comprehensive picture of the relative amount of involvement in an activity by each racial/ethnic group. Given the tendency for participants from some groups to engage in an activity on a fairly large number of days, total days of participation by the group presents a somewhat different picture of relative participation by each group than comparisons of percent participating. The following 4 examples from the Illinois data illustrates this approach.

- ◆ African Americans make up 12 percent of the sample; but account for 39 percent of the activity in outdoor basketball and 20 percent of the activity in softball or baseball.
- ◆ Hispanic Americans make up 4 percent of the sample; but account for 12 percent of the soccer activity, 9 percent of the ORV activity, and 6 percent of the outdoor basketball.
- ◆ Asian Americans make up 2 percent of the sample; but account for 9 percent of the tennis and 4 percent of the picnicking.
- ◆ The "other" group makes up 1 percent of the sample; but accounts for 2 percent of the ORV activity.

These examples demonstrate that although some groups may make up a small proportion of the population, they can make up an important component of the participation in some activities and might figure prominently in marketing strategies for those activities. This is yet another example of the need to "get beyond" looking at significant differences in participation rates between groups.

Within Group Differences in Participation Patterns

It may be useful to look at within-group differences in participation patterns. For example, compare the participation patterns of African Americans who live in urban, suburban, and rural areas. This also helps planners, managers, and researchers move away from stereotyping groups by average group behavior or their differences from other groups. It may also be possible to identify sub-groups within each racial/ethnic group or across groups that have distinct outdoor recreation preferences or behaviors. This analysis may provide useful guides for those wishing to target marketing efforts.

Re - looking at Participation Rates While Controlling for Other Variables

It may be useful to analyze variation in participation patterns among groups in terms of a range of explanatory variables. Initial comparisons of African Americans and Whites stressed the role of differences in social class between the two groups. However, as the number and size of important racial/ethnic groups has grown, and each group has diversified and settled across the landscape; a number of additional variables have become increasingly important in helping to explain differences in participation. These include; but are not limited to age, gender, income, household size and structure, and residence (urban, suburban, and rural). These variables may have significant implications for future participation in outdoor recreation, and they sometimes work in conjunction with race/ethnicity to influence participation.

A logistic regression model was used to estimate the percent of individuals participating in each of 30 outdoor recreation activities based on race/ethnicity, age, residence, household income, gender, and household size (total and number of children) (Table 3.). All of these variables (except household size) were subdivided into categories. The association of each variable category with percent participating was then evaluated in comparison to a reference category. The selection of reference categories does not influence the analysis, and they were chosen for ease of interpretation. With race/ethnicity the reference category was Whites, so other racial/ethnic groups were evaluated in how their participation differed from Whites within the context of all other variables in the model. The reference categories for the other variables were age 18-25, residence in Chicago, household income less than \$15,000 per year, and male gender.

Some explanatory variables were correlated with each other, which complicated the analysis. Hispanics and Asians tended to have higher proportions of individuals in younger age groups compared to other racial/ethnic groups. African Americans tended to have the lowest incomes while Asian Americans tended to have the highest incomes. African Americans were the group that was most concentrated in Chicago, followed by Hispanics and Asians; while whites were the group that was least concentrated in Chicago. Finally mean household size varies with race/ethnicity, with Whites having the smallest mean household size and Asian Americans the largest. These correlations demonstrate that racial/ethnic groups in Illinois differ along a number of dimensions that may influence outdoor recreation participation. These correlations complicate the analysis of between-group differences in outdoor recreation participation and make it difficult (if not impossible) to separate out how race/ethnicity and other variables might independently relate to participation.

Table 3. Coefficients from the logistic regression analysis of participation in outdoor recreation activities by Illinois residents

	Run	Walk	Drive	Picnic	Fish	Icefish	Xcski	Dhski	Skate	PoolSwim	OthrSwim	Wtrski	Boat	Sail	Canoe	
Constant	-1.53*	0.70*	.34	-0.16	-1.57*	-6.31	-4.81	-5.59	-3.26*	-1.10*	-1.56*	-3.54*	-1.81*	-3.25*	-4.01*	
Race																
White																
Black	0.15	-0.34*	-0.20	0.03	-0.59*	-1.41	-1.58*	-1.73*	-1.38*	-0.89*	-1.34*	-2.12*	-1.49*	-0.77*	-1.31*	
Hispanic	0.03	-0.31	-0.03	0.39*	-0.33	-1.41	-0.99	-1.77*	-0.45	-0.38*	-0.12	-1.09*	-1.15*	-0.94*	-0.48	
Asian	0.07	-0.35	-0.39	0.42	-0.90*	-5.60	-1.71	-0.27	-0.11	-0.97*	-0.85*	-1.85*	-1.36*	-0.34	0.54	
Other	-0.38	-0.18	0.08	-0.06	-0.09	1.22	-5.62	-6.16	0.48	0.61	0.31	-0.83	-0.41	-0.26	-0.48	
Not given	-0.09	-0.43	-0.06	-0.18	0.23	-5.40	0.24	-5.62	-0.61	-0.74	0.18	0.69	-0.16	-0.42	-4.72	
Age																
18-25																
26-39	-0.75*	0.22	-0.10	0.39*	-0.16	-0.36	-0.60*	-0.50*	-0.55*	-0.45*	-0.53*	-0.58*	-0.49*	0.00	-0.55*	
40-55	-1.09*	0.14	-0.19	0.09	-0.28	-0.95*	-0.76*	-1.24*	-1.03*	-1.08*	-0.85*	-1.41*	-0.62*	0.13	-0.85*	
56-65	-2.02*	-0.23	-0.16	0.05	-0.25	-0.70	-1.57*	-2.50*	-2.69*	-1.66*	-1.35*	-3.17*	-0.93*	-0.44	-1.74*	
>65	-2.50*	-0.05	-0.43*	-0.33*	-1.00*	-1.62*	-3.70*	-4.30*	-2.87*	-2.06*	-2.56*	-3.16*	-1.67*	-1.10*	-3.55*	
Not given	-1.14*	0.30*	-0.20	0.27*	-0.10	-0.42	-1.31*	-1.13*	-1.08*	-0.70*	-0.70*	-0.83*	-0.70*	-0.04	-0.75*	
Residence																
Chicago																
N. Sub	-0.13	-0.10	0.03	0.06	0.23	0.06	0.35	0.08	0.12	-0.25*	-0.06	0.21	0.51*	-0.33	0.65*	
S. Sub	-0.30*	-0.01	0.04	-0.12	0.33*	0.58	-0.07	-0.42	-0.03	0.19	-0.33*	0.24	0.56*	-1.14*	0.43	
North	-0.55*	0.13	0.39*	0.40*	0.48*	0.45	-0.15	0.05	-0.30	-0.02	-0.06	0.62*	0.64*	-1.08*	0.72*	
Central	-0.39*	0.08	0.49*	0.16	0.78*	0.32	-0.68*	-0.45*	-0.63*	0.25*	-0.26*	0.04	0.52*	-1.04*	0.77*	
South	-0.53*	0.07	0.73*	0.04	1.05*	0.24	-0.93*	-1.25*	-0.92*	0.15	-0.04	0.29	0.63*	-1.15*	0.76*	
Not given	-0.71	-0.37	-0.26	-0.74*	0.03	0.32	-0.39	-0.42	-0.85	-0.65	-1.07*	-1.17	-0.81	0.07	-0.76	
Household Income																
<15																
15-25	0.11	0.07	0.23	-0.07	0.05	-0.15	-0.21	-0.18	-0.02	0.33*	-0.04	-0.05	0.13	0.32	-0.17	
26-40	0.20	0.16	0.56*	0.37*	0.30	0.52	0.04	0.43	0.19	0.53*	0.25	0.24	0.47*	0.36	-0.09	
>40	0.58*	0.51*	0.82*	0.19	0.27	0.25	0.99*	0.82*	0.76*	1.04*	0.71*	0.83*	0.98*	0.84*	0.24	
Not given	0.17	0.02	0.29*	-0.09	0.01	-0.98	0.59	0.50	0.56	0.33*	-0.01	-0.14	0.23	0.43	0.21	
Gender																
Male																
Female	-0.57*	0.72*	0.08	0.19*	-0.81*	-1.52*	0.16	-0.13	0.06	0.06	-0.23*	-0.58*	-0.32*	0.23	-0.30*	
Household Size																
Total	0.03	0.07	0.04	0.25*	0.12*	0.11	-0.19*	-0.20*	0.19*	0.33*	0.13*	-0.02	-0.03	-0.11	0.04	
Adults	0.05	-0.11	-0.02	-0.24*	0.01	-0.12	0.00	0.13	-0.24*	-0.34*	-0.18*	-0.07	-0.11	0.05	-0.03	
	Bckpck	Hike	TentCamp	RVCamp	Golf	Tennis	Softball	Soccer	Bsktball	Biking	HorseRide	Snowmob	Off-road	Hunt	Trap	
Constant	-4.36*	-2.65*	-3.64*	-3.71*	-2.33*	-2.34*	-2.12*	-5.88	-2.54*	-1.28*	-2.65*	-7.96	-2.99*	-3.95*	-8.38	
Race																
White																
Black	-0.22	-1.07*	-1.15*	-0.56*	-1.09*	-0.06	0.60*	-0.67*	0.63*	-0.29*	0.24	-2.79*	0.18	-0.10	0.60	
Hispanic	0.23	-0.46	-0.57	0.07	-0.73*	0.02	0.44*	0.76*	0.45*	-0.47*	-0.21	-0.03	-0.02	-0.65	-5.39	
Asian	0.41	-0.63	0.21	-0.74	-0.94*	0.70*	-1.21*	-0.22	0.06	-0.76*	-0.76	-1.61	-2.32*	-5.26	-5.49	
Other	1.09	-1.12	-0.96	-0.24	-1.52	-0.33	-0.16	0.07	0.79	-0.26	0.82	-7.38	1.50*	0.98	2.66*	
Not given	-5.11	-0.15	-4.37	-3.75	-0.50	-0.34	0.15	0.35	-0.24	-0.66	-0.41	-6.82	-0.78	0.55	-5.75	
Age																
18-25																
26-39	-0.43	0.18	-0.49*	0.05	-0.27	-0.51*	-0.58*	-0.85*	-0.55*	-0.34*	-0.89*	-0.76*	-0.57*	-0.18	-0.37	
40-55	-0.77*	0.16	-1.19*	0.23	-0.77*	-0.88*	-1.28*	-1.46*	-1.25*	-0.82*	-1.11*	-1.17*	-1.11*	-0.20	-0.76	
56-65	-1.56*	-0.77*	-2.01*	-0.52	-0.84*	-1.90*	-2.45*	-7.79	-2.35*	-1.32*	-2.63*	-2.73*	-2.41*	-0.17	-1.21	
>65	-3.19*	-1.42*	-2.94*	-0.33	-0.88*	-2.86*	-3.36*	-3.37*	-3.05*	-2.34*	-2.52*	-7.59	-2.64*	-1.87*	-1.51	
Not given	-0.43	0.22	-0.84*	0.09	-0.48*	-0.81*	-0.82*	-1.12*	-0.84*	-0.74*	-1.23*	-0.93*	-0.74*	-0.16	-0.31	
Residence																
Chicago																
N. Sub	-0.12	-0.06	0.22	0.22	0.60*	0.27*	0.11	0.06	0.17	-0.06	0.05	0.75*	0.55*	0.17	1.12	
S. Sub	-0.17	-0.12	0.03	0.17	0.30	-0.23	-0.17	0.15	0.05	-0.10	-0.06	0.78*	0.57*	0.46	1.08	
North	-0.31	0.09	0.13	0.68*	0.36	-0.34	-0.42*	-0.51	-0.14	-0.53*	0.11	0.59	0.48	1.16*	2.27*	
Central	0.09	0.03	0.53*	0.59*	0.27	-0.44*	-1.21*	-0.24	-0.56	0.12	-0.19	0.03	0.53	0.93*	1.59*	
South	-0.23	-0.18	0.68*	1.24*	0.01	-0.55*	-0.15	-0.36	-0.25	-0.59*	0.37	0.20	1.56*	2.02*	2.16*	
Not given	-0.11	0.23	-0.11	-0.74	-0.32	-0.95	-0.68	-7.39	-0.05	-0.59	-0.55	1.02	0.18	1.19*	-4.69	
Household Income																
<15																
15-25	0.49	-0.16	-0.08	-0.02	0.47	0.15	0.19	0.00	0.22	0.21	0.49	0.52	0.12	-0.24	-0.79	
26-40	0.24	0.27	0.26	0.00	0.98*	0.43*	0.26	-0.14	0.29	0.45*	0.42	0.53	0.11	0.04	-1.14	
>40	0.49	0.39*	0.05	0.14	1.62*	0.63*	0.36*	0.24	0.36	0.92*	0.88*	0.86	0.22	-0.12	-0.73	
Not given	0.72	0.20	-0.07	-0.17	0.98*	0.56*	0.06	0.39	0.39	0.38*	0.69*	0.30	0.16	-0.08	-0.96	
Gender																
Male																
Female	-0.65*	-0.08	-0.48*	-0.17	-0.97*	-0.19	-0.79*	-0.83*	-1.27*	0.04	0.03	-0.37*	-0.62*	-2.57*	-0.84	
Household Size																
Total	0.06	0.10*	0.12*	0.01	-0.11*	0.07	0.21*	0.31*	0.26*	0.25*	0.10	0.11	-0.01	0.06	-0.21	
Adults	-0.03	-0.04	-0.02	0.11	0.10	-0.12	-0.12	-0.29*	-0.05	-0.24*	-0.25*	0.06	0.10	-0.13	0.22	

*Indicates significance at the 0.05 level

The logistic regression model essentially allows us to compare the activity participation rates of each racial/ethnic group with Whites, while accounting for all other variables in the model. In 43 instances out of a possible 120 the model indicates that there are significant differences between the participation rates for a racial/ethnic group when compared with Whites, with all other variables in the model accounted for. This compares to 40 instances where there were significant differences in simple comparisons of means between whites and each of the other groups (i.e., no other variables were accounted for) (Table 1.). Variations in the results of significance tests for between-groups differences using logistic regression and the simple paired comparisons were largely the result of correlations between racial/ethnic groups and other variables. Three examples are described below.

With sailing, simple comparisons of mean participation rates (Table 1) did not indicate significant differences between whites and any of the other racial/ethnic groups. However, the logistic regression model indicated that African Americans and Hispanic Americans are significantly less likely than Whites to participate in sailing. The confounding factor in this instance is place of residence. African and Hispanic Americans are the groups that are most likely to live in Chicago. In turn, Chicago residents are more likely to engage in sailing than are individuals from any other part of the State (perhaps due to Chicago residents' easy access to Lake Michigan). Given their relative concentration in Chicago we would expect somewhat higher participation rates in sailing for African and Hispanic Americans. In the logistic regression, accounting for place of residence and other variables allows differences in participation associated with race/ethnicity to be evaluated. With all other variables taken into account -- these groups are significantly less likely than whites to participate in sailing (Table 3).

In the case of driving for pleasure, a simple comparison of mean participation rates (Table 1) indicated significantly lower participation by African Americans when compared to Whites. However, the logistic regression model does not indicate significantly lower participation for African Americans when compared to Whites. We hypothesize that this difference in the results of the two significance tests reflects the confounding effects of place of residence and household income. Specifically, individuals who live outside Chicago and those that have higher incomes tend to have significantly higher participation in driving for pleasure. Since African Americans are more likely than other groups to live in Chicago and also have lower incomes than other groups, a simple comparison would indicate lower African American participation in driving for pleasure. In contrast, the logistic regression model does not indicate a significantly lower participation rate for African Americans than Whites in driving for pleasure -- given that location, income, and the other variables in the model are accounted for (Table 3).

With softball, simple comparisons of mean participation rates (Table 1) did not indicate a significant difference in participation between Asian Americans and Whites. However, with the logistic regression model, Asian Americans were shown to have a significantly lower rate of participation in softball than Whites, with the other variables in the model considered. We suggest that the difference in the results of the two evaluations may be attributable to age. Participation in softball is significantly higher in the younger age classes than in the older ones. Asian Americans in our sample had a larger proportion of individual in the lower age classes than Whites. Given this situation we would expect higher participation rates in softball for Asian Americans. By controlling for age in the logistic regression, however, the model suggests that Asian Americans are significantly less likely than whites to participate in softball.

The coefficients for the models for predicting participation rates in individual activities vary markedly across activities. The effect of factors other than race/ethnicity in explaining differences in percent participating varies with activity. For example, gender is an especially important factor in explaining participation in hunting. A person's age is a particularly relevant factor in understanding participating in athletic activities. For activities that require a considerable amount of space or special resources (i.e., hunting, off-road vehicles, camping) place of residence (Chicago, its suburbs, other parts of Illinois) is an important factor in explaining participation. Income is important for those activities that require substantial expenditures for participation; such as with playing golf, boating, and driving for pleasure.

Summary

A new millennium is upon us, and with this transition we are inspired to be more creative and embracing in our approaches to managing lands and serving people. In anticipation of increased racial/ethnic diversity in our population it will be especially important in planning for the years ahead that we view race/ethnicity and its implications for outdoor recreation in a framework that extends beyond examination of simple differences in participation rates.

In many instances it will be useful to look beyond between-group differences in participation rates to other dimensions of participation, such as rankings of activities by participation rates, average number of activities engaged in by a group, and percent of the group that does not engage in any of the outdoor activities studied. Extending the analysis to days of participation can also provide a useful context for policies and programs. Important measures can include; average number of days of participation in an activity, as well as across all activities, and the market share (of total days in an activity) attributed to each racial/ethnic group. Amount of activity (as indicated by days of participation) often presents a different picture of participation patterns than percent of the group that

participates in the activity. It is also useful to look at the portion of the total participation in an activity that is made up by a particular racial/ethnic group (market share). This provides some indication of the relative significance of particular groups among current participation in the activity. This broader analysis will help extend the discussion of the outdoor recreation participation of racial/ethnic groups to similarities and differences among groups, and put the differences that do exist in a broader perspective. It will also help avoid focusing our attention and policies only on differences between groups and characterizing groups by their differences from others.

Looking at racial/ethnic differences in the context of other variables such as age, residence, household income, gender, and household size will become even more critical in obtaining an improved understanding of outdoor recreation participation as racial/ethnic groups increase in numbers and diversity, and extend their influence across the landscape. An improved understanding of the role that these variables play in conjunction with race/ethnicity will help us anticipate and prepare for meeting the needs of increasingly diverse customers in the years ahead.

In sum, It will be increasingly important to look beyond simple comparison of participation rates to address the policy issues of the future – many of which will deal with

expansion and diversification of racial/ethnic groups. It is critical that in the next millennium we focus on comprehensive policies and programs for meeting the outdoor recreation needs for all segments of our population.

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DISABLED WILDLIFE-ASSOCIATED RECREATION PARTICIPANTS

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Abstract: Respondents to a wildlife-associated recreation survey who indicated they had a disability were compared to respondents who did not indicate a disability. Demographic and participation based comparisons were made. Disabled respondents tend to be older, less educated, and have lower incomes than those who are not disabled. They are more likely to be retired and widowed and less likely to be married than those who are not disabled. Disabled respondents participate in wildlife-associated recreation activities at or near their occurrence in the population.

Introduction

Disabled wildlife-associated recreation survey respondents make up about 6% of the population of the United States 6 years of age and older, according to the survey of Fishing, Hunting and Wildlife-Associated Recreation (U.S. Dept of Interior 1997). Participation in wildlife-associated recreation by disabled individuals is recognized and encouraged by state agencies through special hunting opportunities and regulations designed to facilitate access to hunting areas (Manfredo et al. 1989, Jones 1993). In addition, there are special hunts and fishing contests (e.g. Sports and Spokes 1997) and organizations involved with enabling disabled people to pursue outdoor sports (Hancock 1992).

Disabled individuals participate in wildlife-associated recreation at or near the level at which they occur in the population. The purpose of this paper is to identify and profile disabled wildlife-associated recreation respondents and participants and to compare their demographic and participation characteristics to respondents and participants who are not disabled. Specifically, participation in hunting, fishing, and wildlife watching will be analyzed.

Methods

The 1996 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation was used in this analysis. The survey has been conducted by the Census Bureau for the US Fish and Wildlife Service approximately every 5 years since 1955 (U.S. Dept of Interior 1997). The survey actually consists of three surveys and results in three datasets. The screening survey consists of demographic and limited participation data

and is considered to be representative of the population of the United States in general. The sportsmen survey consists of detailed participation and expenditure data about hunting and fishing and is considered to be representative of hunters and anglers residing in the United States. The wildlife watching survey consists of detailed participation and expenditure data about nonconsumptive wildlife associated recreation activities and is considered to be representative of wildlife watchers residing in the United States. The screening survey was the primary source of data used in this analysis. Because the screening survey contains only limited participation data and, in order to maintain consistency with participation data published by the US Fish and Wildlife Service, some of the data presented here are from summary publications by the US Fish and Wildlife Service. Participation data collected using the screening survey are for 1995 and the data presented in the summary publications, which are collected using the detailed surveys, are for 1996.

Respondents were asked if they had a disability. If they had a disability, they were asked if they had mobility, hearing, sight, and/or mental disabilities. About 6% of the entire population (7% of those 16 years of age and older) reported one or more types of disability. This proportion is lower than that reported in other Census datasets, in part because the questions used in this survey contain less detail than those used in other Census surveys.

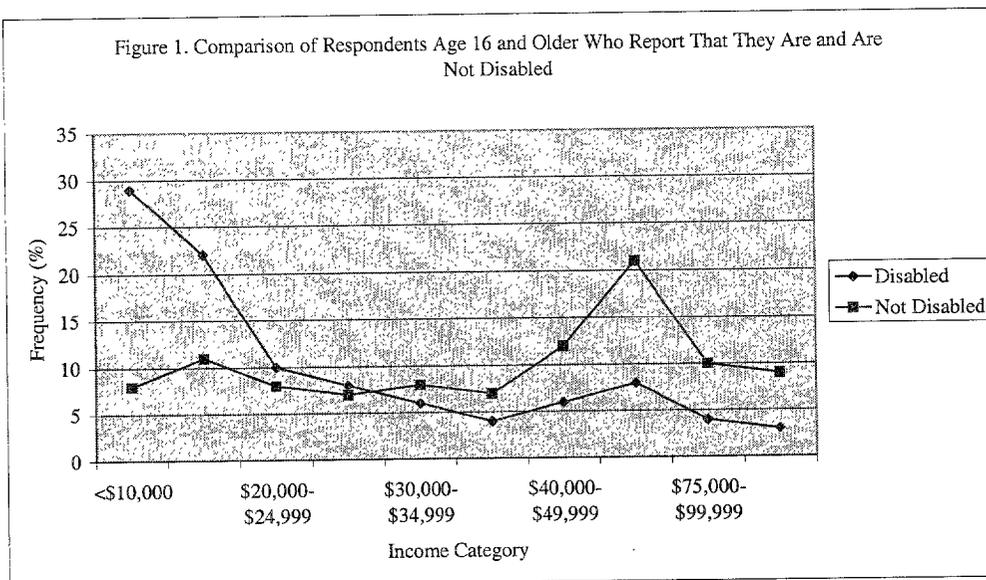
Results

Disabled respondents tend to be considerably older than those who are not disabled (Table 1). They also tend to have lower levels of education, which is generally associated with age. They are slightly more likely to be male, which could be associated with military or work-related disabilities in a generation in which males dominated the workplace and military. They are more likely to be retired and less likely to be working, conditions which are related to both age and disability. They are less likely to be married, more likely to be widowed, and less likely to have never married, conditions related to age and social aspects of the generation. They are slightly more likely to be Black and less likely to be Asian or Pacific Islander or Hispanic. As would be expected, the lower education levels along with more retirees and fewer workers results in considerably lower incomes. A bimodal income distribution is usually found in a dataset of this type. In this case, we see evidence of bimodal distributions for both disabled wildlife-associated recreation participants as well as those who are not disabled (Figure 1). The income distribution for disabled wildlife-associated recreation participants has its larger mode at the lower income levels and a very small mode at the higher income levels. This contrasts to the distribution for those who are not disabled where the opposite occurs.

Table 1. Comparison of Respondents Age 16 and Older Who Report That They Are and Are Not Disabled

	Disabled	Not Disabled
Age (Mean)	59	44
% Completing 12th Grade	65	83
% Male	50	48
% Retired	46	16
% Working	18	68
% Married	48	61
% Widowed	20	6
% Never Married	17	24
% White	83	83
% Black	12	9
% Eskimo/Am. Indian	1	1
% Asian/Pac. Is.	1	3
% Hispanic	6	8

Figure 1. Comparison of Respondents Age 16 and Older Who Report That They Are and Are Not Disabled



When broken down by types of disability, it is apparent that mobility, hearing, and sight disabled fall into the older age group while those with a mental disability tend to be younger

(Table 2). However, the educational levels for all types of disabilities tend to be similar. Those with hearing and mental disabilities are more likely to be male. Those with a mental

disability are least likely to be retired but no more likely to be working than those in the other categories. Those with a hearing disability are most likely to be working. Respondents with a mental disability are least likely to be married, widowed, or to have ever been married, characteristics which further distinguish this disability. Those with a mental disability are less likely to be white or Hispanic and slightly more likely to be black. The income distributions follow very similar paths, but those with a mental disability are most likely to fall into the lowest income category while those with a hearing disability are least likely of all disabled to fall into the lowest income category. Of particular interest is the combination of the low income of the mentally disabled with their relatively young age. Many in this category suffered this disability most or all of their lives in contrast with many of those with physical disabilities, who tend to be healthy in their younger years. This means, among other things, that those with a mental disability have not been able to build up a financial nest egg. This may explain part of the reason so

few of the mentally disabled ever married. It also gives us some insight into their participation patterns, which will be discussed next.

Disabled wildlife-associated recreation participants made up 5% of the population of those hunting in 1996 (Table 3). They are more likely to have hunted at some time during their lives (28% vs. 22%). However, about one fifth of those who have ever hunted continued to hunt in 1995 (vs. one third for hunters who are not disabled). Disabled participants may be more likely to drop out of hunting which would be expected, and is probably accounted for largely by the combination of their disability and age. Of interest is that 4% of the disabled who hunted in 1995 were hunting for the first time, which means that they began hunting after they were disabled. Disabled hunters hunt about the same number of days and trips as those who are not disabled, even though they are much more likely to be retired and, therefore, probably have more time available to hunt.

Table 2. Comparison of Respondents Age 16 and Older by Types of Disability

	Mobility	Hearing	Sight	Mental	Not Disabled
Age (Mean)	61	63	64	47	44
% Completing 12th Grade	64	61	64	64	83
% Male	48	55	45	54	48
% Retired	50	53	59	21	16
% Working	16	24	15	15	68
% Married	52	48	44	26	61
% Widowed	22	23	29	8	6
% Never Married	11	17	14	48	24
% White	83	86	83	81	83
% Black	12	9	11	14	9
% Eskimo/Am. Indian	1	1	2	1	1
% Asian/Pac. Is.	1	3	1	1	3
% Hispanic	7	4	8	3	8

Hearing disabled hunters are most likely of all disabled hunters to have hunted in 1995 and to have ever hunted (Table 4). This is to be expected, because mobility and sight disabled hunters are restricted by the relatively strenuous nature of hunting, due in part to the terrain which results in access problems. Also, hearing disabled are more likely to be white, thus coming closer in this respect to the average hunter who is likely to be white. Sight disabled hunters are most

likely to have dropped out of hunting, and it is likely the occurrence or the worsening of this highly restrictive disability that is largely responsible for this. Those with a mental disability are least likely of all disabled to have ever hunted. This is probably due to a number of reasons in addition to their disability. Their age is closer to the age of those who are not disabled and their past participation is closer to this group. Also, there are proportionally fewer

whites among the mentally disabled and most hunters are white. Detailed participation data have been excluded from

Table 4 because of the small number of observations.

Table 3. Comparison of Respondents and Hunting Participants Age 16 and Older Who Report That They Are and Are Not Disabled

Hunting	Disabled	Not Disabled
Hunted During Lifetime (%)	28	22
Hunted in 1995 (%)	19	35
1995 First Year Hunted (%)	4	4
Number Hunting in 1996	713,000	13,262,000
% of All Hunting in 1996	5	95
Average Hunting Days	18	18
Average Hunting Trips	15	16
Average Hunter Age	50	40
% Hunters Retired	38	8

Table 4. Comparison of Respondents and Hunting Participants Age 16 and Older by Types of Disability

Hunting	Mobility	Hearing	Sight	Mental	Not Disabled
Hunted During Lifetime(%)	29	31	25	17	22
Hunt in 1995 (%)	18	22	10	16	35
Number of Hunters	553,000	122,000	38,000	53,000	13,262,000
% of All Hunters	4	1	<1	<1	95

Disabled participants make up 6% of the population of anglers (Table 5). This is higher than the 5% rate for hunters. They are about equally likely as those who are not disabled to have fished some time during their lives. However, about one third of those who have ever fished continued to fish in 1995 (vs. Almost one half for anglers who are not disabled). This is to be expected, and, like hunting, it is probably accounted for largely by the combination of their disability and age. Three percent of the disabled anglers who fished in 1995 were fishing for the first time, which means that they began fishing after they were disabled. Unlike hunters, disabled anglers fish more days and take more fishing trips than those who are not disabled, thus taking advantage of the additional time available to them as retirees.

As is the case for hunting, hearing disabled anglers are the most active of all disabled anglers (Table 6). They are more likely than other disabled anglers to have fished in 1995 and to have ever fished, and they fish more days and take more trips than all other disabled anglers. Both the hearing and mobility disabled are more likely than anglers who are not disabled to have fished some time during their lives. However, all categories of disabled anglers are less likely than those who are not disabled to have fished in 1995, probably indicating that age and the disability are taking their toll. Those disabled anglers who have continued to fish, however, tend to fish more than those who are not disabled. Those with a hearing disability fish almost twice as many days and take twice as many trips as those who are not disabled.

Table 5. Comparison of Respondents and Fishing Participants Age 16 and Older Who Report That They Are and Are Not Disabled

Fishing	Disabled	Not Disabled
Fished During Lifetime (%)	53	52
Fish in 1995 (%)	35	47
1995 First Year Fished (%)	3	5
Number of Anglers	2,024,000	33,222,000
% of All Anglers	6	94
Average Fishing Days	26	18
Average Fishing Trips	22	14
Average Angler Age	50	40
% Anglers Retired	33	9

Table 6. Comparison of Respondents and Fishing Participants Age 16 and Older by Types of Disability

Fishing	Mobility	Hearing	Sight	Mental	Not Disabled
Fished During Lifetime (%)	54	57	46	47	52
Fish in 1995 (%)	34	40	22	30	47
1995 First Year Fished (%)	3	2	2	5	5
Number of Anglers	1,451,000	401,000	142,000	206,000	33,222,000
% of All Anglers	4	1	<1	1	94
Average Fishing Days	25	32	22	23	18
Average Fishing Trips	19	28	20	22	14

Wildlife watching consists of observing, feeding, and photographing wildlife and maintaining areas for wildlife around the home (residential) as well as taking trips of more than one mile to observe, feed, or photograph wildlife (nonresidential). Disabled wildlife watchers make up 7% of all residential and 5% of nonresidential wildlife watchers (Table 7). They tend to be slightly more likely to feed and less likely to take trips. They tend to be older than wildlife watchers who are not disabled. The youngest disabled wildlife watchers are the photographers and trip takers.

As with hunting and fishing, hearing disabled wildlife watchers tend to participate more in most wildlife watching activities (Table 8). A notable and unexpected exception is nonresidential wildlife watching, which consists of taking trips, which is common to most hunting and fishing activities.

Mobility and hearing disabled are more likely than those who are not disabled to observe and feed wildlife around the home. The fact that these participants are older and some are more likely to be restricted to the home probably accounts for much of the higher participation. Those with sight and mental disability are least likely to photograph wildlife around the home. The nature of the disability explains much of this for the sight disabled. However, both sight and mentally disabled wildlife watchers are most likely to have the lowest incomes, and those who photograph wildlife tend to have higher than average incomes.

Summary and Conclusions

Disabled wildlife-associated recreation participants make up a small market. As identified in this survey, disabled

respondents make up about 7% of the population of the United States 16 years of age and older. Most have a mobility disability. They tend to be older, less educated, and have lower incomes than those who are not disabled. They are more likely to be retired and widowed and less likely to be married than those who are not disabled. They are slightly

more likely to be Black and slightly less likely to be Asian or Hispanic than those who are not disabled. Those with mobility, hearing, and sight disabilities tend to be similar in most respects while those with mental disabilities tend to be younger, and less likely to be retired, working, or married.

Table 7. Comparison of Respondents and Wildlife Watching Participants Age 16 and Older Who Report That They Are and Are Not Disabled

Wildlife Watching	Disabled	Not Disabled
Observe (%)	28	27
Feed (%)	35	30
Photograph (%)	9	10
Maintain Plantings (%)	11	12
Trips (%)	11	15
Number of Wildlife Watchers	4,496,000	58,372,000
% of All Wildlife Watchers	7	93
Number of Residential	4,378,000	56,373,000
% of All Residential	7	93
Number of Nonresidential	1,139,000	22,513,000
% of All Nonresidential	5	95
Average Observer Age *	57	48
Average Photographer Age	54	45
Average Nonresidential Age	51	42

Disabled wildlife-associated recreation participants participate at or near their occurrence in the population. They are least likely to participate in hunting and most likely to have dropped out of hunting. They hunt fewer days and take fewer trips than those who are not disabled, an understandable situation given the relatively strenuous nature of hunting. They participate more in fishing than hunting and even participate more (days and trips) in fishing than those who are not disabled. Disabled wildlife-associated recreation participants are most likely to participate in residential wildlife watching, an activity which occurs around the house. In all activities as in the population in general, disabled wildlife-associated recreation participants tend to be older than the corresponding participants who are not disabled. In almost all activities those with a hearing disability tend to participate at the highest levels. Those with sight and mental disabilities tend to participate at the lowest levels, in part because of the nature of the disability and possibly in part

because of the race/ethnic and income characteristics of these groups.

It is both interesting and important that disabled wildlife-associated recreation participants participate at or near their occurrence in the population. They face many barriers to participation, particularly in hunting and stream and river fishing. It is apparent from this study that disabled wildlife-associated recreation participants are most likely to participate in the activities that have the fewest barriers to participation, such as residential wildlife watching. Considering this and considering the fact that they tend to participate at higher than average levels (days and trips) in fishing, one is inclined to wonder what will happen as both physical and social barriers to participation continue to be removed. These people have more time to spend on these activities. Although they do not have as much money to spend, some of these activities are relatively low cost and it

is possible that this market will expand in the future.

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Table 8. Comparison of Respondents and Wildlife Watching Participants Age 16 and Older by Types of Disability

Wildlife Watching	Mobility	Hearing	Sight	Mental	Not Disabled
Observe (%)	29	33	23	24	27
Feed (%)	36	41	32	30	30
Photograph (%)	9	9	7	5	10
Maintain Plantings (%)	11	13	11	8	12
Trips (%)	12	9	7	12	15
Number of Wildlife Watchers	3,522,000	655,000	436,000	424,000	58,372,000
% of All Wildlife Watchers	6	1	1	1	93
Number of Residential	3,427,000	654,000	429,000	404,000	56,373,000
% of All Residential	6	1	1	1	93
Number of Nonresidential	904,000	111,000	69,000	158,000	22,513,000
% of All Nonresidential	4	0	0	1	95

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VISITOR EXPERIENCES AND SATISFACTION

MORE ON CONCEPTUALIZING & MEASURING LEISURE INVOLVEMENT

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Abstract: This paper analyzes several issues that have emerged in recent years relating to the measurement and conceptualization of leisure involvement. Using data measuring runner's involvement with the activity of running, this paper responds to several issues raised earlier by Havitz and Dimanche (1997). In the context of this data set and in accordance with past research efforts, involvement is best conceptualized as a multi-dimensional construct. One dimension, *Attraction* (to the activity), captures the majority of variance explaining subjects' involvement. The remaining two dimensions, *Risk Consequence* and *Sign Value*, add valuable descriptive information concerning the nature of subject's involvement with running.

Introduction

Leisure involvement has been defined as an unobservable state of motivation, arousal, or interest toward a recreational activity or associated product. It is evoked by particular stimulus or situation and has drive properties (adapted from Rothschild, 1984). In other words, leisure involvement refers to how we think about our leisure and recreation. It also effects our behavior. Although situational components are evident in this definition the focus of most leisure research, consistent with Sherif and Cantril's (1947) original conceptual work, has been on the enduring properties of leisure and recreational activities and their relationships with the ego or self. The terms "involvement" and "leisure involvement" will be used interchangeably throughout the remainder of this paper in reference to those enduring properties unless otherwise qualified.

Over the past 15 years leisure involvement has become a widely researched. Over this time, it has been used to examine tourism impacts (Ap, 1992); segments of pleasure travelers and participants in recreation activities

(e.g., Dimanche, Havitz, & Howard, 1993; Fesenmaier & Johnson, 1989; Havitz, Dimanche, & Bogle, 1994); complaint behavior (Twynam, 1992); travel intentions (Norman, 1991); family vacation decisions (Madrigal, Havitz, & Howard, 1992); loyalty to a recreation activity or travel service (e.g., Backman & Crompton, 1991; Pritchard & Havitz, 1992); responsiveness to communications (e.g., Havitz & Crompton, 1990); and responsiveness to pricing decision (McCarville, Crompton, & Sell, 1993).

Despite the construct's popularity in assisting both academics and professionals to explain leisure behavior, a number of conceptual and measurement issues remain. With this in mind, the purpose of this paper is to explore several recurrent issues in the context of involvement profiles of runners participating in an annual 10K road race.

Measuring Social-Psychological Involvement

In the mid 1980s two milestones were reached in the effort to ground the involvement construct. Zaichkowsky (1985) and Laurent and Kapferer (1985) reported the development of methodologically sound measures of involvement. McQuarrie and Munson (1987) noted that these authors were careful to measure the "state" of involvement, rather than relying on indicants associated with the antecedents and consequences of this state. The result in each case was a multi-item scale (i.e., inventory) which survived multiple tests of validity, and was claimed to be of general applicability across product categories. These separate efforts, however, have produced two very different inventories. Zaichkowsky's (1985) Personal Involvement Inventory (PII) treats involvement as a unidimensional construct; its 20 items are summed to produce a single score. Laurent and Kapferer (1985) are adamant that involvement is multifaceted, and claim that a Consumer Involvement Profile (CIP) is required. They argued that a consumer's involvement cannot be expressed in a single score, because the type of involvement is as important as its level. Their 20 item scale was developed to measure five facets: (a) the importance of the product class to the individual, (b) the pleasure or hedonic value derived from the product, (c) the sign or symbolic value attributed to the product, (d) the risk probability associated with a potential mispurchase, and (e) the risk consequences associated with mispurchase. Only the first and to some extent the third facet is represented among the items comprising Zaichkowsky's (1985) PII.

The Zaichkowsky (1985) PII or its subsequent modifications (McQuarrie & Munson, 1987; Zaichkowsky, 1987) were used in a number recreation studies in the late 1980s and early 1990s (Backman & Crompton, 1989; Havitz & Crompton, 1990; McCarville, 1991; McCarville et al., 1993). More recently, however, research in this area has tended to be dominated by adapted versions of Laurent and Kapferer's (1985) CIP (see Havitz & Dimanche, 1997). Dimanche, Havitz, and Howard (1991), testing Laurent and Kapferer's (1985) CIP in the context of selected recreational and tourist activities, stated that "...a unidimensional involvement score would conceal valuable information. It is the profile of involvement on its various dimensions that provides a clear picture of the participant's

relationship with the activity" (p.63). In a recent review of 50 leisure data sets, Havitz and Dimanche (1997) concluded that multi-faceted scales were more appropriate than single faceted scales because of their stronger content and face validity for studying leisure. In this study social psychological involvement was measured using a modified IP scale (Laurent & Kapferer, 1985) containing 15 items and measuring five facets; (a) pleasure, (b) importance, (c) sign value, (d) risk consequence, and (e) risk probability.

Two research questions guided this study. First, is participant involvement with the activity of running multidimensional? And if so, which dimensions are most salient and best describe individual's involvement with the activity of running?

Methods

Study Event

The Richard S. Caliguiri Great Race is an annual 10K road race staged in the downtown area of Pittsburgh during the last week of September. Organized by Pittsburgh CitiParks, the race traditionally attracts approximately 10,000 participants each year. There are several race divisions for participants to choose from (e.g., 10K race, 5K race, 5K walk).

The Sample

Nine hundred subjects were systematically drawn from the entry list of the ten kilometer division of The 1997 Richard S. Caliguiri Great Race exactly two weeks prior to the race. This category of competitors was chosen because it contained the largest number of entrants and was considered by the investigators to be more heterogeneous than the other smaller categories within the race. It was assumed that a heterogeneous population would add to the external validity of these results.

A modified Dillman's (1978) method was employed. It was comprised of: (1) sending out the survey the day after the race (1st wave), (2) sending out a postcard reminder, and (3) sending out a replacement survey (2nd wave). An incentive was included to encourage the sample to return their questionnaires. Altogether, 468 usable surveys were returned, amounting to a 52 percent response rate. Data were analyzed using the Statistical Package for the Social Sciences, SPSS (Release 8.0, 1997).

Results

Involvement

To obtain greater insight into the nature of participants' involvement, measures of behavioral involvement were also obtained. As noted by Kim et al. (1997), there are no standard indices used by leisure researchers to measure behavioral involvement. Therefore, in the context of this study, behavioral involvement was measured through two open-ended items. The first item addressed subjects' participation in similar events over the preceding 12 months. Subjects participation in previous Great Race events was the focus of the second item. These results were

recoded into the categories shown in Table 1. Most (82.5%) had previously participated in the Great Race and, for a sizeable percentage (28%), participation in organized race events was limited to the Great Race.

TABLE 1
Behavioral Involvement

Past Participation ^a	Great Race		Similar Events ^b	
	n	%	n	%
0	81	17.5	130	28.0
1	74	16.0	71	15.3
2	45	9.7	61	13.1
3-5	93	20.1	101	21.8
6-10	104	22.5	50	10.8
More than 10	65	14.1	51	11.0
Total	462	99.9 ^c	464	100.0

^a = Participation in races

^b = Participation in similar events over the past 12 months

^c = Rounding

The consumer involvement profile (CIP) scale developed by Laurent and Kapferer (1985) was used to measure social-psychological involvement toward running. The multiple item CIP scale was administered in a Likert-type response format. Respondents were asked to rate each of the items on a five-point scale where 5=strongly agree and 1=strongly disagree.

A principal axis factor analysis with an oblique rotation was employed to validate Laurent and Kapferer's (1985) CIP scale. Research suggests that it is more appropriate to use an oblique rotation in the social sciences where dimensions are often correlated (Harman, 1976; Kass & Tinsley, 1979; Kim & Mueller, 1978). Applications examining involvement profiles support this proposition (Dimanche et al., 1991; Laurent & Kapferer, 1985; Schuett, 1993; Shimp & Sharma; 1983). To determine the appropriateness of using the factor analysis procedure, the Kaiser-Meyer-Olkin measure of sampling adequacy (.8614) and Bartlett test of sphericity (3119.9534) were employed (significance=.00000). The results indicated that the decision to use factor analysis was appropriate. A five-factor solution was specified since the intent was to validate the *a-priori* assignment of fifteen items into five facets (importance, pleasure, sign value, risk probability, and risk consequence) consistent with the scale operationalization proposed by Laurent and Kapferer (1985). Even though the five factor solution accounted for 76.2% of the variance, only three factors had eigenvalues greater than 1.0. Kaiser (1974) suggests that factors with eigenvalues below 1.0 should be discarded from the analysis. The scree plot also indicated that the variance explained by the fourth and fifth factors offered only a marginal contribution to the total variance explained.

Failure to confirm the *a-priori* five facets led to the decision to conduct a follow-up exploratory factor analysis on the fifteen involvement statements. Three factors

emerged with eigenvalues greater than 1.0 and explaining 63.3% of the total variance in the data (see Table 2). One item measuring the risk probability facet (*It is complicated to choose running over other activities*) was deleted because of its low communality (below .20).

The first factor, titled "Attraction" (eigenvalue = 5.56; variance = 39.74%), included the following eight statements: "Running is pleasurable," "Running interests me a lot," "I really enjoy running," "Whenever I go running, I am confident that it is the right activity choice," "When choosing to go running from among other activities, I always feel confident that I will make the right choice," "When I go running, it is like giving a gift to myself," "I attach great importance to running," and "Running never leaves me indifferent." This factor individually explained approximately 40% of the variance.

The second factor, "Risk Consequence" (eigenvalue = 2.00; variance = 14.32%), included the following three statements: "I get annoyed if I go running and it proved to be the wrong activity choice," "If, after I have been running, my choice proved to be poor, I would be upset," and "When I mistakenly choose to go running from among other activities, it really matters to me."

"Sign Value," (eigenvalue = 1.29; variance = 9.24%) the third factor, included the following three statements: "My participation in running gives a glimpse of the type of person who I am," "That I go running tells a lot about me," and "I can tell a lot about a person by whether or not they go running."

Similar to previous work in the leisure literature (see Harvitz & Dimanche, 1997) using the CIP scale, the factor titled "Attraction," had the highest grand mean (4.01). Item means on this factor ranged from 3.57 through 4.42. *Sign Value*, on the other hand, produced a grand mean of 3.58. Two of its items had means of 3.92 and 3.90, whilst the third item, "I can tell a lot about a person by whether or not they go running," produced a mean of 2.90. While the reliability coefficient of the first two items was .86, on the basis of theory and past research, the third item which lowered the reliability coefficient to .76, was retained. Subjects' responses to this item suggested indifference. Most (36 %) were neutral with the remainder equally split between positive and negative poles. Given the comparatively high means reported on the first two items, it appears subjects were unwilling to make character judgements about others, but had no problem responding positively on items measuring their personal (self expression) and social (presentation of self to others) identity associated with running.

The factor reflecting the *Risk Consequence* facet of involvement produced the lowest grand mean (2.54). All three items in this factor were reverse coded and had means ranging from 2.46 to 2.73, suggesting that subjects did not perceive any risk as a consequence of their participation with the activity of running.

Reliability coefficients (Cronbach's alpha) were computed for the statements that formed each factor. *Attraction* had a reliability coefficient of .8923, *Risk Consequence* had a reliability coefficient of .8404, and *Sign Value* had a reliability coefficient of .7600 (Table 2).

TABLE 2
Factor Analysis Results of Involvement Statements for the Entire Sample

Involvement Statements	Means	Factor 1 Attraction (M=4.01)	Factor 2 Risk Consequence (M=2.54)	Factor 3 Sign Value (M=3.58)	Communality
Running is pleasurable.	4.15	.816	.082	.300	.682
Running interests me a lot.	4.02	.813	.035	.424	.666
I really enjoy running.	4.11	.805	.109	.283	.675
Whenever I go running, I am confident that it is the right activity choice.	4.42	.745	.035	.171	.557
When choosing to go running from among other activities, I always feel confident that I will make the right choice.	4.11	.733	.049	.238	.558
When I go running, it is like giving a gift to myself.	4.14	.703	-.003	.299	.489
I attach great importance to running.	3.61	.665	-.026	.496	.530
Running never leaves me indifferent.	3.57	.452	.023	.369	.285
I get annoyed if I go running and it proved to be the wrong activity choice.	2.73	.137	.746	-.053	.382
If, after I have been running, my choice proved to be poor, I would be upset.	2.73	.056	.708	-.037	.262
When I mistakenly choose to go running from among other activities, it really matters to me.	2.46	-.029	.585	-.113	.357

Continued

	Means	Factor 1 Attraction	Factor 2 Risk Consequence	Factor 3 Sign Value	Communality
My participation in running gives a glimpse of the type of person who I am.	3.90	.543	-.033	.813	.668
That I go running tells a lot about me.	3.92	.519	-.028	.810	.666
I can tell a lot about a person by whether or not they go running.	2.90	.211	-.123	.511	.275
Eigenvalue		5.56	2.00	1.29	
Variance Explained		39.74	14.32	9.24	
Cumulative Variance		39.74	54.05	63.29	
Alpha		.89	.84	.76	

Discussion

In accordance with previous findings (see Havitz & Dimanche, 1997) these results support the notion that leisure involvement is indeed a multidimensional construct. However, several confounding issues emerged that require further explanation. First, involvement in this study was conceptualized at the product level (i.e., with the activity of running). As these investigators were to later discover, it appears that for many subjects social-psychological involvement lies at the brand level (i.e., with the Great Race itself). Several factors lend support to this notion. First, no correlation was found between participation in the Great Race and annual participation in similar events. For many (28%) subjects, participation in organized race events was limited to the Great Race. Second, the means for the two importance items ("I attach great importance to running" and "Running never leaves me indifferent") were slightly lower than all the other items loading onto the first factor (*Attraction*), suggesting that "running" is not as important as participation in this specific event.

Consistent with previous research (c.f., Havitz & Dimanche, 1997), importance and pleasure loaded together on one factor, *Attraction*. In terms of the variance explained by this factor (almost 40% of the total variance), this was clearly the most salient dimension of their involvement. Confounding these results, however, were the two risk probability items loading with the importance and pleasure items. Conceptually, it is difficult to justify the presence of the two risk probability items in this first factor. The loading of these items onto the first factor, similar to Kerstetter and Kovich's findings (1997), raise questions regarding subject's interpretation of each of the items. In this study, it is possible that subjects' interpretation of these two items may have been similar to that of the importance, reflecting their commitment to the event. That is, they may be personally and socially obligated to compete and fail to associate any risk (either personal or social) as a consequence of participation. Kim et al. (1997) illustrated that commitment was both strongly and positively related to the *Attraction* facet. Had the specificity of attitude objects been more clearly defined, this ambiguity may have been avoided. Recently, Havitz and Dimanche (1997) highlighted the problems arising from the specificity of the attitude objects issue. A number

of scholars (see Gahwiler & Havitz, 1998; Iwasaki & Havitz, 1998) have indicated that product level involvement plays a formative role in developing psychological commitment to a brand. These results lend support to their argument.

Also, related to the loading of the risk probability items, Havitz and Dimanche (1997), citing the research of Twynam (1993) and Norman, Fieber, and Clements (1994), reported the loading of risk and attraction together when economic considerations became a consideration for participants. It would seem unlikely that the entrance fee for the race would be a salient economic issue in terms of subjects ability to pay. Similar to Norman et al.'s (1994b) study, however, other questions not cited here relating to participants' willingness to pay to enter the race were included in the survey instrument. Therefore, it may have been possible that subjects' thought their responses could have an impact on future entrance fees, thus interpreting this as "financial risk."

Finally, in comparison to the first facet, *Attraction*, the grand means of the *Risk Consequence* and *Sign Value* facets were substantially lower. This finding offers support to the notion that involvement levels vary depending on the nature of the product in question (see Havitz & Dimanche, 1997).

Practically, multidimensional profiles of participant involvement provide vastly different managerial and marketing information for leisure professionals than do unidimensional scales and global items. Rather than examining entire participant populations as single units, the best way to take full advantage of involvement profiling may be to segment respondents based on profiles prior to conducting follow-up analyses.

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USER SATISFACTIONS AND PERCEPTIONS OF CROWDING IN FOUR ADIRONDACK WILDERNESS AREAS

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Abstract: The purpose of the paper is to study the inverse relationship between user perceptions of crowding and satisfaction with the wilderness experience. The relationship between user perceptions of crowding and trip satisfaction was studied in four state wilderness areas in the Adirondack Park during the summer of 1997: High Peaks Wilderness, Siamese Ponds Wilderness, Ha-Da-Ron-Dah Wilderness, and the St. Regis Canoe Area. User perceptions of crowding were correlated (low negative coefficients) with user satisfaction on the wilderness trip experience. However, the appropriateness of using single measures of satisfaction and crowding was questioned since only a small proportion of the total variance was explained in the models constructed.

Introduction

Wilderness managers are concerned about recreation management issues such as user density, opportunities for solitude, perceptions of crowding, and user satisfaction with the wilderness experience. The general conceptual model is that user densities affect user perceptions of crowding which, in turn, affect user trip satisfactions. User perceptions of crowding are expected to be influenced by the numbers of other users, the numbers of large groups, and the user expectations about numbers of other users compared to actual experience of use levels. User satisfactions are expected to be influenced by user perceptions of crowding during wilderness experiences (Graefe and others 1984, Manning 1985 and 1986, Shelby and others 1989).

These issues face wilderness managers in state designated wilderness areas much like their national wilderness counter parts. New York State wilderness area managers were concerned about these issues and wondered how applicable national wilderness studies were to their own situation. Thus, these variables were measured as part of several larger studies being conducted in Adirondack wilderness areas during the summer of 1997.

In New York State, the definition of wilderness is nearly identical to the federal wilderness definition with only minor differences. There are 16 designated wilderness areas and one canoe area within New York's Adirondack Park. The St. Regis Canoe area is very similar to wilderness and is defined, in part, as an area for "remote and unconfined type of water-oriented recreation in an essentially wilderness setting."

The intent of the research design was to select several wilderness areas with different densities of use and user types to measure the associations between these variables. As a result, the four wilderness areas selected varied in type of user, user density, size of area, and geographical location within the Adirondack Park. The four areas selected were the High Peaks Wilderness, Siamese Ponds Wilderness, Ha-Da-Ron-Dah Wilderness, and the St. Regis Canoe Area (Table 1).

Table 1. Comparison of the four wilderness areas size and estimated use.

Wilderness Area	Size (acres)	Estimated Annual User Visits
High Peaks	192,700	140,000
Siamese Ponds	112,500	2,000
Ha-Da-Ron-Dah	26,500	2,000
St. Regis Canoe	18,400	8,000

Methods

The relationship between user perceptions of crowding and trip satisfaction was studied in four wilderness areas in the Adirondack Park during the summer of 1997. The general research design was to systematically sample users at high use trail heads during stratified days of the week and time blocks during the morning and afternoon-evening times. Brief field interviews were conducted at specific trailheads during weekdays and weekend days. Then a follow up mail survey was conducted with reminders, as necessary.

Of the 1,123 users briefly interviewed and sent a detailed mail survey, 70% responded to that survey (Table 2). A modified Dillman survey methodology was used with up to three reminders being sent to nonrespondents (Salant and Dillman 1994). All statistical tests were conducted using the Statistical Package for the Social Sciences (SPSS version 7.5 for Windows, AMOS for SPSS version 3.61, and Answer Tree 2.0) software package.

Table 2. Comparison of the four wilderness user survey returns and response rates.

Wilderness Area	Mail Surveys	Survey Response Rate
High Peaks	690	67%
Siamese Ponds	97	74%
Ha-Da-Ron-Dah	92	75%
St. Regis Canoe	244	75%
Total	1,123	70%

Six variables are analyzed here from the mail survey data: total number of hikers/canoes seen on the trip, total number of large groups seen on the trip, number of hikers/canoes seen compared to what was expected, number of large groups seen on the trip compared to what was expected, user perceptions of crowding, and overall trip satisfaction. The six variables in this report were tested for statistical differences between wilderness areas using univariate Analysis of Variance, using correlation coefficient analysis, using graphically comparisons of bivariate plots, using a theoretical model with a path analysis technique to measure how perceptions of crowding affect trip satisfaction, and using segmentation analysis to identify users who responded to each crowding and satisfaction category. There are some differences in how these variables were measured in the St. Regis Canoe Area compared to the other three wilderness areas (i.e., number of canoes compared to number of hikers, three response categories compared to five categories of crowding perception).

Results and Discussion

The six variables in this study were tested in an Analysis of Variance procedure to determine if they were similar and could be used in aggregate instead of as four separate area comparisons. The results of the comparisons using both the Scheffe and LSD ANOVA statistical tests ($p < 0.10$) indicated that there were significant differences between the High Peaks users and three other area user groups on five of the variables. The responses of the High Peaks users was significantly different from other area users for the five independent variables. The responses of Siamese Ponds, Ha-Da-Ron-Dah and St. Regis area users was not significantly different for the five independent variables. The only variable for which there was no statistically significant difference between the four areas was on trip satisfaction (dependent variable); overall, 95% of all users surveyed were satisfied to very satisfied with their trip experiences. Based on the differences between the High Peaks user responses from the other three wilderness areas, the following analysis results are divided into two groups to measure the association between the six variables: (1) High Peaks Wilderness users and (2) the Siamese Ponds, Ha-Da-Ron-Dah and St. Regis area users aggregated together.

The average number of users seen on a trip ranged from seven hikers in the Ha-Da-Ron-Dah and Siamese Ponds Wilderness areas to 11 canoes in the St. Regis Canoe Area and 44 hikers in the High Peaks Wilderness. The majority of users (79%) saw fewer other users than they expected, 14% saw what they expected and seven percent saw more users than they expected. The relationship between the number of hikers/canoes seen on the trip and the number of hikers/canoes seen compared to what was expected

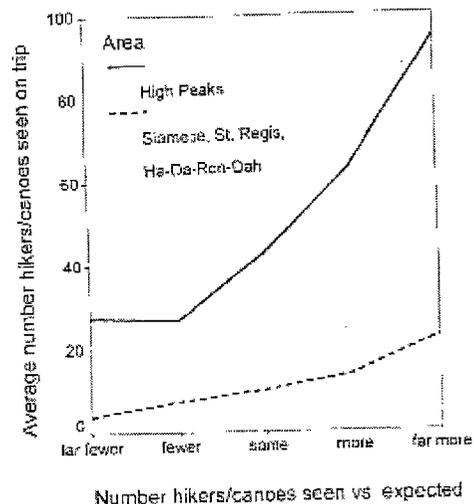


Figure 1. The average number of users seen on a trip and the number of users seen compared to expected in 1997.

was an overall positive Pearson correlation coefficient (statistically significant difference at $p < 0.01$) with the average number seen increasing from far fewer seen than expected to far more than expected (Figure 1). The correlation coefficients between these two variables was very similar for the High Peaks and other three wilderness areas (0.26 and 0.30, respectively) even though the average number of users seen in the High Peaks was substantially higher than the other three areas. In general, the High Peaks users have adjusted their expectations to a higher threshold level of use than had users in other areas, although some High Peaks users reported that the number of other hikers was more than expected (16%) or far more than expected (4%). Whether High Peaks users learn to set their expectations at a high level of use based on past experience or shared information was not asked in this study.

The number of large user groups seen on a trip (more than 10-12 users) averaged from less than one in the Ha-Da-Ron-Dah and Siamese Ponds Wilderness areas to two in the St. Regis Canoe Area and High Peaks Wilderness. The majority of users (55%) saw the number of large groups that they expected, 34% saw fewer other large groups than they expected, and 11% saw more users than they expected. The relationship between the number of large user groups seen on the trip and the number seen compared to what was expected was an overall positive Pearson correlation coefficient (statistically significant difference at $p < 0.01$) with the average number seen increasing from far fewer seen than expected to far more than expected (Figure 2). The correlation coefficients between these two variables was very similar for the High Peaks and other three wilderness areas (0.29 and 0.33, respectively). The average number of large groups seen in the High Peaks

Wilderness were substantially higher than the other areas and some High Peaks users reported that the number of large groups seen was more than expected (13%) or far more than expected (2%).

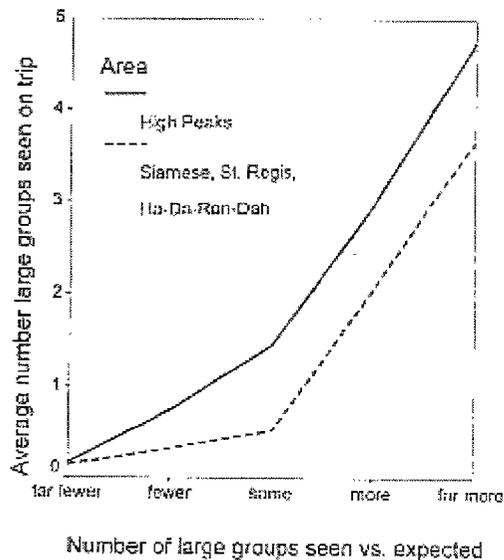


Figure 2. The average number of large groups seen on a trip and the number of large groups seen compared to expected in 1997.

Users were asked to report if they felt crowded during their trips to these four wilderness areas. The five response categories and percent response were: 1 = no crowding (57%), 2 = slightly (22%), 3 = moderately (14%), 4 = very (6%), and 5 = extremely crowded (1%) (only the first three categories were used in the St. Regis Canoe Area survey). The relationship between the respondent's perceptions about crowding and the number of hikers/canoes expected compared to seen on the trip was an overall positive Pearson correlation coefficient (statistically significant difference at $p < 0.01$) with the average perception of crowding increasing from far fewer seen than expected to far more than expected (Figure 3). The correlation coefficients between these two variables was very similar for the High Peaks and other three wilderness areas (0.47 and 0.44, respectively) with perceptions about crowding increasing substantially when the number seen was more or far more than expected. The average reported perceptions of being crowded were only slightly higher in the High Peaks Wilderness than the other three areas when users reported that the number hikers/canoes seen was more than expected or far more than expected.

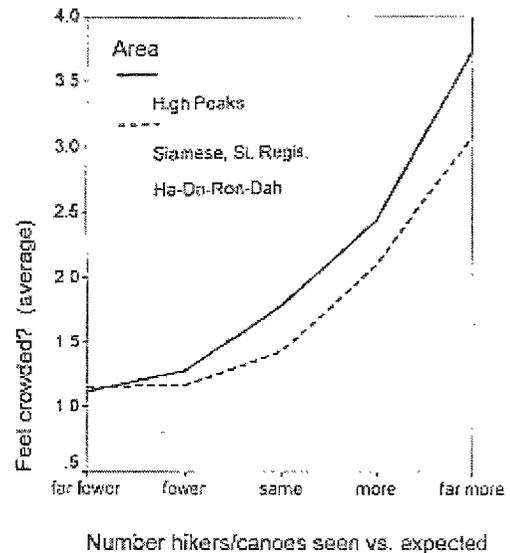


Figure 3. User perceptions of crowding and the number of users seen compared to expected in 1997.

Similarly, the relationship between the respondent's perceptions about crowding and the number of large groups expected compared to seen on the trip was an overall positive Pearson correlation coefficient (statistically significant difference at $p < 0.01$) with the average perception of crowding increasing from far fewer seen than expected to far more than expected (Figure 4). The correlation coefficients between these two variables was very similar for the High Peaks and other three wilderness areas (0.30 and 0.39, respectively) with perceptions about crowding increasing substantially when the number seen was more or far more than expected. The average reported perceptions of being crowded were only slightly higher in the High Peaks Wilderness than the other three areas when users reported that the number of large groups seen was more than expected or far more than expected.

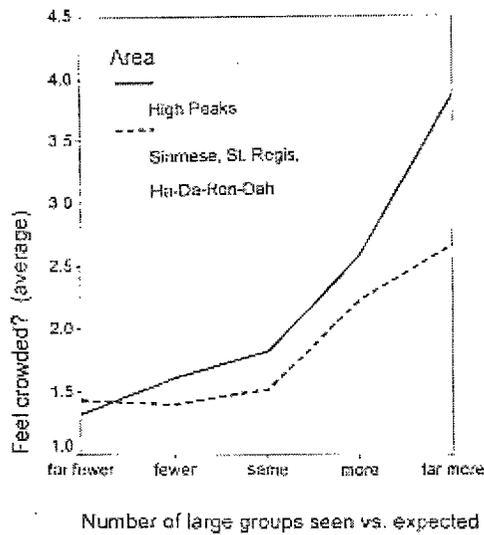


Figure 4. User perceptions of crowding and the number of large groups seen compared to expected in 1997.

Users were asked to report if they were satisfied with their experiences while on their trips to these four wilderness areas. The five Likert-type response categories for the question about being satisfied and percent response were: 2 = strongly agree (55%), 1 = agree (40%), 0 = neutral (3%), -1 = disagree (1%), and -2 = strongly disagree (1%). The relationship between the respondent's perceptions about trip satisfaction and crowding were an overall negative Pearson correlation coefficient (statistically significant difference at $p < 0.01$) with the average satisfaction decreasing as perceptions of crowding increased (Figure 5). The correlation coefficients between these two variables was very similar for the High Peaks and other three wilderness areas (-0.28 and -0.37, respectively). Interestingly, satisfaction declined more rapidly with

increasing perceptions of crowding in the Siamese Ponds, Ha-Da-Ron-Dah and St. Regis areas compared to the High Peaks area.

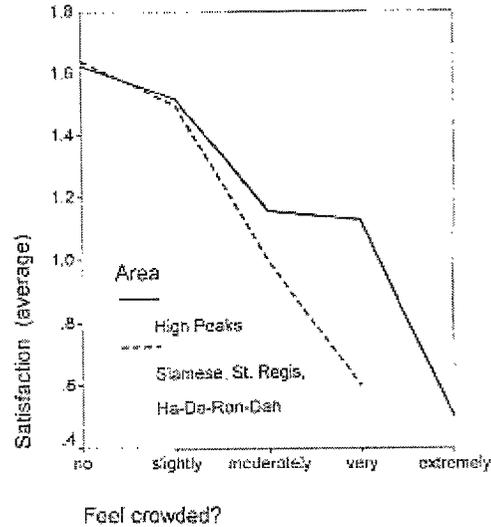


Figure 5. User satisfaction and perceptions of crowding on trips in 1997.

The six study variables were used to develop a user satisfaction prediction model that calculates a linear combination of five variables to predict trip satisfaction. The model was conceptually developed based on the published literature and statistically formulated using a structural equation model. The six variables in this study were all observed variables and four latent or "unobserved" variables were added to absorb the unexplained variation in the four endogenous variables (Table 3).

Table 3. The user satisfaction prediction model includes 10 variables.

Variable Name	Variable Label	Variable Type
totseen	total number of hikers/canoes seen on the trip	observed exogenous; continuous variable
largegrp	total number of large groups seen on the trip	observed exogenous; continuous variable
exptrail	number of hikers/canoes seen compared to what was expected	observed endogenous; 5 point ordinal scale
expgroup	number of large groups seen on the trip compared to what was expected	observed endogenous; 5 point ordinal scale
crowded	user perceptions of crowding	observed endogenous; 5 point ordinal scale
satisfy	overall trip satisfaction	observed endogenous; 5 point ordinal scale
other1	latent variable to exptrail	unobserved exogenous
other2	latent variable to expgroup	unobserved exogenous
other3	latent variable to crowded	unobserved exogenous
other4	latent variable to satisfy	unobserved exogenous

A user satisfaction path model for the High Peaks Wilderness area is shown in Figure 6 and a path model for the Siamese Ponds, Ha-Da-Ron-Dah and St. Regis areas is shown in Figure 7. These models reported that there is a high degree of correlation between the total number of users seen compared to the number of large groups seen ($r = 0.41$ and $r = 0.49$, respectively). The numbers on top of each rectangle are the squared multiple correlation (R^2) with the previous variable(s). The relationships between perceptions of crowding

and the expected compared to actual user numbers are the strongest relationships. In these multivariate path models, the relationships between perceptions of crowding and trip satisfaction are not as strong as might be anticipated from the bivariate relationships. Overall, these multivariate path models are acceptable and statistically significant ($p < 0.01$) but do not explain a large amount of the variance in either key variable -- perceptions of crowding or trip satisfaction.

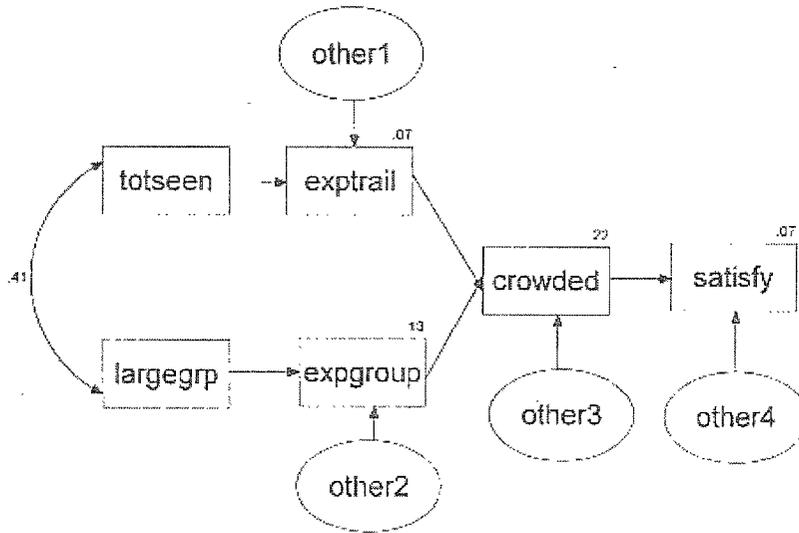


Figure 6. A path analysis model for High Peaks users in 1997.

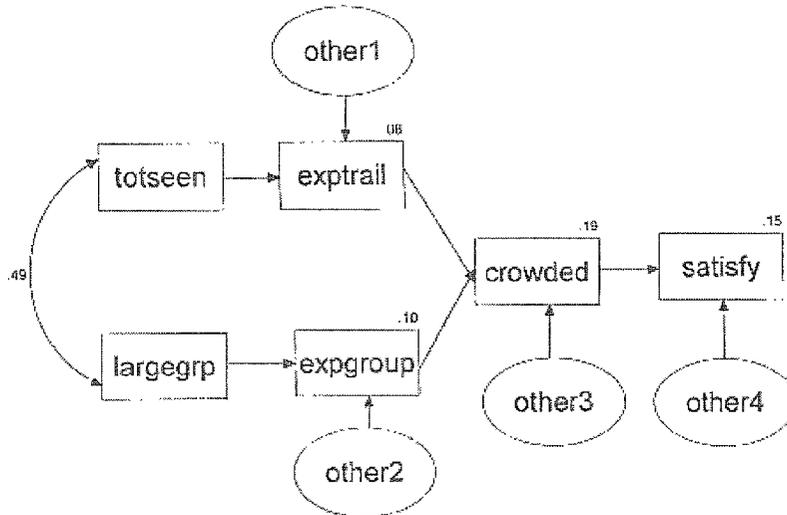


Figure 7. A path analysis model for Siamese Ponds Wilderness, Ha-Da-Ron-Dah Wilderness, and St. Regis Canoe Area users in 1997.

One way to further explore the relationship between the respondent's trip satisfaction and perceptions about crowding was to segment the users based on these two variables. A user segmentation analysis for the High Peaks Wilderness area shows (Table 4) a statistically significant difference (Chi-square = 23.5, df = 1, $p < 0.01$) between two user segments who were: (1) very satisfied and perceived no crowding or only slight crowding; and (2) satisfied and perceived moderate to extreme crowding. A user segmentation analysis for the Siamese Ponds, Ha-Da-Ron-Dah and St. Regis areas is shown (Table 5) a statistically significant difference (Chi-square = 16.5, df = 1, $p < 0.01$) between two user segments who were: (1) very

satisfied and perceived no crowding; and (2) satisfied and perceived slight to very crowded conditions. Only the crowding variable provided any discriminatory power in this segmentation; no other variables made any statistically significant contribution. While these results are statistically significant and are generally as predicted, some cases raise questions about why perceived crowding appears to have no negative affect on some user's satisfaction and why some users are not satisfied but have not perceived crowding to be an issue for them. Clearly, there are many other factors besides perceptions of crowding that affect satisfaction.

Table 4. Reported satisfaction by High Peaks Wilderness users and their feelings about crowding.

Satisfaction Rating	Feelings About Crowding		
	Not crowded or slightly crowded	Moderately to extremely crowded	Total
	Percent (n = 259)	Percent (n = 90)	Percent (n = 349)
Very dissatisfied	0.8	2.2	1.2
Dissatisfied	0.0	5.6	1.4
Neutral	1.5	5.6	2.6
Satisfied	35.9	50.0	39.5
Very Satisfied	<u>61.8</u>	<u>36.6</u>	<u>55.3</u>
Total	100.0	100.0	100.0

Table 5. Reported satisfaction by Siamese Ponds Wilderness, Ha-Da-Ron-Dah Wilderness, and St. Regis Canoe Area users and their feelings about crowding.

Satisfaction Rating	Feelings About Crowding		
	Not crowded	Slightly to very crowded	Total
	Percent (n = 172)	Percent (n = 111)	Percent (n = 283)
Dissatisfied	0.0	2.7	1.1
Neutral	1.2	3.6	2.1
Satisfied	33.1	49.6	39.6
Very Satisfied	<u>65.7</u>	<u>44.1</u>	<u>57.2</u>
Total	100.0	100.0	100.0

Conclusions

Correlations between the six variables within the path model are as expected from the published literature (Graefe and others 1984, Manning 1985 and 1986, Shelby and others 1989) but explain only a small portion of the total variance in perceptions of crowding or trip satisfaction. The level of expected use varies between higher and lower density wilderness areas, but when user expectations are exceeded, users feel more crowded. Satisfaction is partially influenced by perceptions of crowding, usually having some negative affect on satisfaction, particularly when crowding is perceived as moderately to extremely crowded.

The appropriateness of using single measures of satisfaction and crowding is questioned since only a small

proportion of the total variance was explained in the models constructed. Measures of satisfaction are used by recreation managers to assess current and changing social conditions; however, some authors suggest that satisfaction is difficult to measure (i.e., requires more than a single normative variables to measure) and may require complex models to appropriately and correctly assess fulfillment during the experience (Williams 1989). Wilderness managers seeking to monitor changes in social conditions are looking to use satisfaction and crowding indicators to assess conditions in need of corrective measures or to evaluate the effectiveness of management actions to reduce crowding.

Based on our research and published literature, we recommend that future research on the relationship between user perceptions of crowding and trip satisfaction focus on

how to operationalize the concept of satisfaction as a multi-dimensional scale of items and not as a single item. Additionally, we recommend that future research develop a more complex model of the social and human dimensions of the wilderness experience to better predict satisfaction (Whisman and Hollenhorst 1998).

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DEMOGRAPHIC TRENDS

DEMOGRAPHIC CHANGE IN THE 21ST CENTURY: THE IMPACT ON RECREATION PARTICIPATION

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Abstract: The population of the United States is becoming more diverse and growing older. Into the next century, a new demographic climate will emerge. Using data employed in the development of the current Resource Planning Assessment done by the U.S. Forest Service, this paper explores a changing American society, including racial distribution, immigration and migration, and an aging population. In some areas, the non-white and Hispanic population has surpassed the number of non-Hispanic whites, creating a phenomenon termed a "minority majority" effect.

Not only do minorities cluster in specific areas, but immigrants also tend to cluster near "port of entry" areas, such as coastal metropolitan regions. Immigrants may migrate to these areas to be involved with family networks. Other groups migrate throughout the country for different reasons. Internal migration may be related to amenities, or quality of life values, which may draw people away from metropolitan areas. Several factors such as these create differences in the ethnic and racial makeup of the nation, thus across a "demographic" landscape. Certain areas will become more heterogeneous and some will remain homogeneous in the future.

American society will not only diversify but is also expected to age as well. More individuals will occupy older age categories, and the median age of the U.S. population as a whole is increasing. Older individuals may have unique recreation preferences compared to younger cohorts. The percentage of older persons within the jurisdictions of recreation agencies will likely increase, creating changes in preferred services and leisure opportunities. The implications of demographic changes noted above potentially have profound impacts on the use of natural resources and are discussed in the paper.

Introduction

Demographic change into the next century has implications for recreation participation in the United States. Several components are considered in discussion of demographic change and associated diversification of the U.S. population. Five are discussed here: population growth, an aging effect, immigration, migration patterns, and an overall diversification of society. These factors have implications for how managers and researchers plan for recreation participation among different groups of people.

Methods

Data were examined from the following sources for predicted trends in demographic factors: 1) U.S. Bureau of the Census, 2) SEELA 1997 (Social, Economic, Ecological, Leisure and Attitudinal Assessment Database), 3) The Complete Economic and Demographic Data Source 1997, Woods and Poole Economics, Inc., and 4) 1997 Statistical Abstract of the United States.

Population Growth

Despite a slowing rate of growth, the U.S. population is expected to grow more than 50 percent from 1990 to 2050 reaching 392 million (Day, 1996). Factors affecting population growth include a stable fertility rate, an increase in life expectancy, and continued immigration as forces acting on American society. Internal migration combined with the other factors will act to cause regional variation in population growth across the geographical landscape, with some areas, such as the southwest, expected to grow more readily than other areas such as the northeast. The implications are a changing shape of demand for recreational services, i.e., growth in demand in one geographic area may be larger than in another region.

The issue of population growth is under debate. People seem to agree that the world's population continues to expand, but the rate at which it will continue to do so is open to interpretation, given the educational programs aimed at lowering fertility rates. Developing nations are predicted to continue to grow in numbers even if birth rates drop, because of the effect of population momentum which occurs among a young population with a large percentage in childbearing years. Developed nations should experience different trends, because in many "the key concerns are aging and potential population decline, because measured fertility has remained below the replacement level since the mid-1970s. Although populations in most developed countries are still growing today because of population momentum, rising life expectancy, or immigration, reductions in population numbers are likely if fertility remains below replacement levels" (Bongaarts 1998, p. 419). The United States is predicted to grow until the year 2050, and throughout developed countries "population size is projected to rise slowly until 2025 and then decline, leaving the total in 2050 about the same as today." (Bongaarts 1998, p. 419).

Growth rate is likely to vary in the U.S. by region. Table 1 represents a projected change in population growth for the years 2000-2020 in four regions of the United States. Average rates often mask internal variation. For example, although the highest average rate is projected for the Pacific Coast region, the counties also show substantial differences, with rates of growth ranging from -10.3% to 78% for the years projected. It is predicted that for all U.S. counties, 78% will gain and 22% will lose population from 2000 to 2020.

Table 1. Growth Rate by USFS Assessment Region (2000-2020 Projection).

Region	Counties	Average Growth Rate	Standard Deviation
Pacific Coast	133	22.6	17.6
South	1311	12.7	16.6
Rocky Mountain	597	8.6	19.2
North	1038	8.2	12.0

Source: Woods and Poole Economics, Inc. 1997

Another perspective is to examine metropolitan regions. Within the same geographic area, cities could vary by future population growth. Average regional rates would mask internal variation. Presented here are four northeast metros, which range from New York City (0.3%) to Washington D.C. (28.3%) predicted for percent population change from 1995 to 2020.

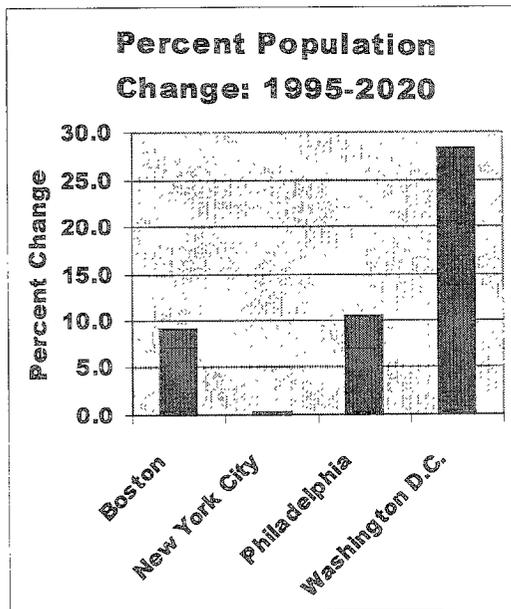


Figure 1. Percent Population Change for NE Metros (1995-2020). Source: Woods and Poole Economics, Inc. 1997.

An Aging Effect

The U.S. population is aging. "Throughout developed countries, the proportion of the population over age 65 is expected to rise to 25% in 2050, up from 14% today" (Bongaarts 1998, p. 419). If one-fourth of the world's

population will be older than 65, then there are implications for recreation demand, because those in this age segment are likely to have unique preferences for recreation services and activities compared to the rest of society. As the U.S. population ages, changes in demand for specific recreational activities should occur.

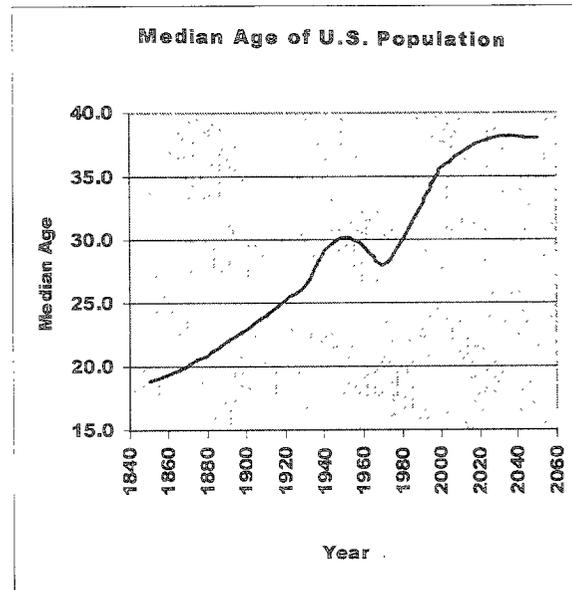


Figure 2. Historical Change in Median Age of U.S. Population. Source: U.S. Bureau of the Census, 1999. <http://www.census.gov/population/www>

At the turn of the century, 13% of the U.S. population will be at least 65 years old. A slightly higher percentage in this age cohort will be in rural areas compared to urban areas. Areas of the country will differ in terms of an older population. The Rocky Mountain Region will have the highest proportion in 2020 of 17% (Beavers et al. 1999).

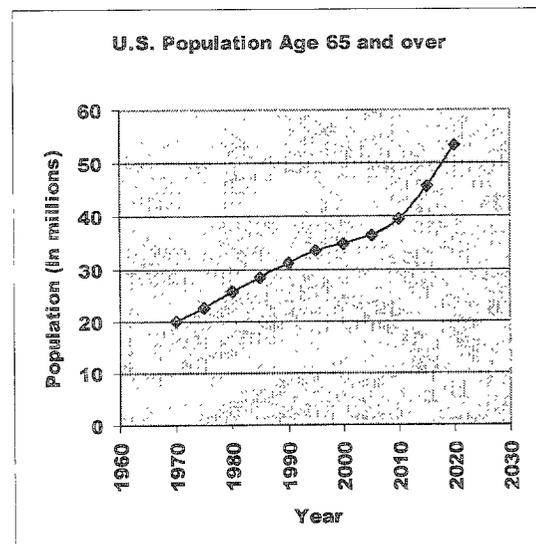


Figure 3. U.S. Population Age 65 and over. Source: Woods and Poole Economics, Inc. 1997.

Several issues relate to outdoor recreation participation among the oldest of the U.S. population. This age cohort has reached their retirement years, potentially having large amounts of leisure time. They can also spend money for recreation, without the responsibilities of raising children or other commitments. The types of recreational activities they choose, however, may differ than those of younger counterparts. Murdock et al. (1991, p. 257) argue "that it is age that will have the most pervasive effects on participation" mainly because an aging population is evident in every part of the country.

Immigration

Immigration will have an important effect on both the growth and the composition of the U.S. population into the next century. Influx of new members of society has shown historical change. While immigrants of earlier years were dominated by those of European descent, immigrants of today are more likely to be from Latin America and Asia. This is shown in naturalization data from the 1960's to the present (Mogelonsky 1997). Immigrant populations are representing a growing proportion of U.S. society. One estimate is that by the years 2050, approximately 25% of the population will be post-1990 immigrants and their descendants or 80 million people (Beavers et al. 1999). The U.S. Bureau of the Census has continued to study the immigration effect. Reports note that in 1997, almost 1 out of 10 U.S. residents were foreign-born and 7 million people, or 1/4 of the all foreign-born were from Mexico. In addition, states differ by percentage of immigrants. While the U.S. as a whole had 9.7% foreign-born, five states had more than average -- California (24.9%), New York (19.6%), Florida (16.4%), New Jersey (15.4%), and Texas (11.3%). Data strongly suggest variation in the level of ethnic diversity among different regions of the country (U.S. Bureau of the Census 1998).

Immigration will have an effect on recreation participation demand. Important issues are 1) how the incoming immigrants participate in recreation, and 2) how recreation fits in their lives. Specific recreational activities will be more affected; in fact some researchers argue that any future growth in participation by white anglers will be attributable to immigration effects (Murdock et al. 1996).

Migration Patterns

Population structure changes not only with immigration, but also with internal migration within the U.S. While immigrants may tend to locate near metropolitan areas based on family networks, internal migration of already established residents occurs for other reasons away from large metros. Those reasons may involve recreational amenities or health care. Retirees are an example of a group responsible for internal migration often related to quality of life issues (Frey 1996).

As forces of migration shape the demographic landscape, they should also change the shape of recreation demand. Areas to where immigrants migrate will have a different recreation clientele than areas attracting internal migrants.

Consider that traditional port of entry cities, such as Chicago, Los Angeles and Miami, "were home to 27 percent of the total population in 1995, but more than 60 percent of all foreign-born residents" (Frey 1996, p. 37). The foreign-born are overrepresented in these metros; therefore, they are likely to be underrepresented in other areas.

Further, some regions may become truly diverse, while others remain somewhat homogeneous. Recreation planners in some parts of the country will need to invest more time preparing for a diversification of recreation demand than will be required in other areas of the country.

Diversification

The factors discussed previously combine to suggest an increasing diversification of American society. This phenomenon can be debated, however, if it is examined from different angles. Some would argue that the U.S. is not truly diverse but that only specific regions show a cultural mix. Hawaii and south Texas have historically had minority majorities and metros like New York are multicultural. In addition, approximately eight percent speak Spanish in their homes. This doesn't seem large relative to those speaking English in society (Mogelonsky 1998). Only 21 metros are truly diverse. In these areas, the percentage of non-Hispanic whites is lower than the national average and two minority group percentages are higher than average. Laredo, Texas was highest on a diversity scale based on a 1996 racial distribution (Frey 1998).

On the other hand, data suggest increasing diversification. Approximately 200 counties are minority majority (Mogelonsky 1998). The growing diversification of American society has led to dramatic changes planned for the 2000 census. Traditional racial and ethnic categories have been expanded, so that with the future methods "there are 64 possible racial combinations, compared with 5 under the previous guidelines" (O'Hare 1998).

Measuring racial categories is often an attempt to provide detail to issues such as recreation participation. An important point in examining data is that both broad trends and detailed phenomena are warranted to understand the full picture of demographic change. As data are examined, they should be examined from different perspectives. Figure 4 shows that whites outnumber non-whites in terms of total population.

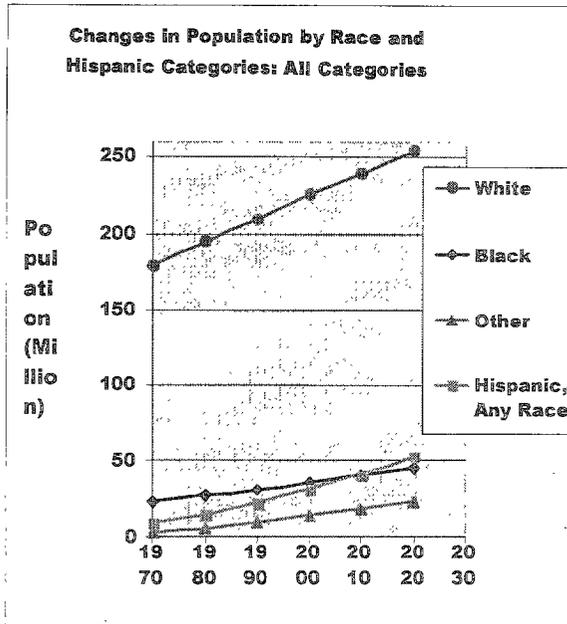


Figure 4. Changes in Population by Race and Hispanic Categories: All Categories. Source: Woods and Poole Economics, Inc. 1997.

However, removing the white category and changing the scale of the graph reveals an important change expected in the future. Hispanic groups are predicted to outnumber the Black population by the year 2010. In fact, by the middle of the next century, "Hispanics are projected to bring a minority majority to the entire United States" (Mogelonsky 1998, p. 51). As with any projection data, it is important to investigate the component parts that help create the whole to arrive at as complete a picture as possible related to future change.

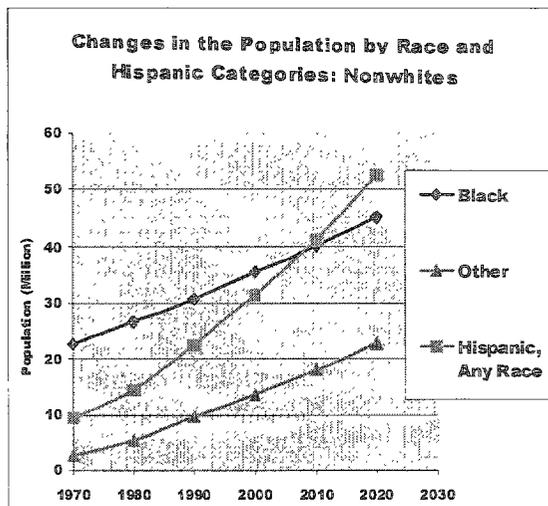


Figure 5. Changes in Population by Race and Hispanic Categories: Nonwhites. Source: Woods and Poole Economics, Inc. 1997.

Implications for Recreation Participation

The combined effects of the factors discussed previously have important implications for recreation demand in the next century. Not only will the shape of recreation participation change, but also the methods used to understand the associated demand will need to be considered.

In the latter, methodological issues arise with a diversifying society. One consideration involves how to measure race and ethnicity for meaningful categories suitable for research and analysis. With changes in the racial and ethnic classifications of the 2000 Census, data will have greater detail, but will also pose challenges in terms of organization of racial categories. With the racial and Hispanic classifications, as many as 128 different categories could emerge (O'Hare 1998). Historical trends will also be problematic. A multicultural person who formerly classified himself as black in 1990, can now note both black and white. By the same token, a person who is mixed race, black and white, may have failed to designate himself as black in the earlier census. Understanding historical comparisons across racial categories becomes an issue. Measuring trends in recreation participation by race will likely become more challenging than in the past.

Another important point is that cultural meanings of recreation may vary among groups. This presents a challenge for collecting data. Consider the wording of questionnaires, e.g., how a "recreation day" would be interpreted by people who differ by primary languages. Media networks are just beginning to understand the implications of broadcasting in languages other than English, noting that ethnic television can reach markets with preferences for specific goods and services, including travel (Mogelonsky 1998).

A third concept from a theoretical perspective is how social recreation groups are defined. The demand for solitary leisure may be giving way to demand for group activities, as among immigrants whose cultural identity, norms, and values may be related to group cohesiveness in recreation and other aspects of their lives. Immigration and interracial marriages has created a group of people who classify themselves as multi-racial and represent between 1 and 2 percent of the U.S. society. Mixed race families may respond more positively to multicultural advertising (Fisher 1998).

This discussion leads to a preliminary conclusion that the shape of recreation demand will change in the not too distant future. How that change will present itself depends on the passage of time. What does seem likely is that decision makers who consider recreation demand on a national scale may need to pursue a greater understanding of regional variation in participation, with greater demand and diversity occurring in west and south compared to the north. Growth in urban populations and concentration of immigrants in these port of entry metros suggests a demand for urban green space and a need to plan for greater participation in urban areas.

Finally, an increasingly diversified American society will likely have diversified tastes and preferences for recreation activities, facilities and services provided. Decisions will have to be made by researchers in the near future regarding how recreation participation is measured and the best way to capture the symbolic nature of recreation, which translates into levels of participation among a diversified clientele. Finally, researchers and managers alike may benefit from collaborative efforts that address how recreational services can be provided in the U.S. with sensitivity to the myriad of cultural values represented by an increasingly diverse society.

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THE NEW ENGLAND TRAVEL MARKET: AN UPDATE OF CHANGING DEMOGRAPHICS AND GEOGRAPHIC MARKETS, 1980 TO 1996

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Abstract: The purposes of this research paper were three-fold: 1) to examine and update domestic travel to New England during the 80s and 90s; 2) to identify changing patterns in these travel trends by examining such variables as demographic and geographic markets or travelers who visited New England during this time period; and 3) to more specifically examine additional trend variables which have not yet been analyzed. Findings here indicated that the New England travel market has rebounded and is up across all age categories and geographic regions. Additional new data variables provided new insights into reason for trips; time of year traveling; type of traveler; and state of New England destination.

Introduction

Recent studies have examined trends in the activity, regional and geographic markets for New England's travelers and recreation participants (Warnick 1992A, 1992B, 1993, 1996 and Kuentzel, Robertson and Ramaswamy, 1995). These studies have indicated that domestic travel in the Northeast and in New England specifically has become a mature market. There is some indication that travel trend analysis by state within the Northeast also varies considerably. This paper examines the New England travel destination markets and updates of two earlier studies (Warnick 1996, 1993). Distinct differences in travel specific behavior often occur gradually over time and these participation rates, although some may be viewed as historic, form the basis for changes which will likely shape future travel demand and behavior.

In Warnick's previous studies of geographic markets, the markets were examined by large geographic regions and their travel participation in selecting New England as a primary destination. Specifically, the Northeast was considered as one major market and compared to other regions (the South, Midwest and West) when individuals indicated travel to New England as a primary destination choice. These studies indicated that New England was considered to be a mature destination region for domestic travel. The region had not rebounded to the peak market demand of the mid-80s. During the periods examined travel participation rates (percent of US population selecting New England as a primary destination was highest in 1980 at 4.3 percent. In raw numbers, the peak year estimate was 1984 when 6.89 million travelers selected New England. From this period on, travel

participation rates and actual estimates of travelers actually fluctuated downward through the early 90s. The low point was the data year of 1991 when only 2.3 percent of the US population selected New England. This represented an estimated 4.2 million actual travelers. However, the most recent study (Warnick 1996) indicated some marginal rebound in the travel patterns. The Vermont and New Hampshire travel study (Kuentzel, Robertson and Ramaswamy, 1995) showed domestic travel to these states had also become mature, but they also found very different changes in travel patterns by state residence and primary destination of the visitors. Warnick's (1997) other study on metro activity markets and travel provided new and revealing insights into market changes in the Northeast and within New England by target market metro areas. These areas were divided into primary, secondary and tertiary markets. Considerable differences existed within and between these markets based on recreational pursuits and travel behavior. However, the Warnick's 1997 study did not link actual travel or recreational activities to New England based travel. Rather, it examined what was taking place within the markets by places of origin of New England travelers. Evidence does suggest that the future of travel in New England is changing and continues to need further attention and review. Travel is critical to the prosperity of economic base of the New England states. Finally, recent changes in data availability and data extraction from large national surveys makes it possible to examine New England destination travelers in ways not previously possible.

Purposes of Study

The purposes of this research paper are three-fold: 1) to examine domestic travel to New England during the 80s; 2) to identify changing patterns in these travel trends by examining such variables as demographic and geographic markets or travelers who visited New England; and 3) to more specifically examine additional variables which have not yet been examined within the context of trend analysis.

Method

The sources of these data are Simmons Market Research Bureau's annual *Study of the Media and Markets* (1980 through 1996). These data are made available to public libraries after a lag period of one to two years for teaching and research purposes and the data contains large national samples in excess of 25,000 to 30,000 individuals per year and they are random stratified samples by region. The samples are adjusted to reflect US census statistics and a weighting technique is applied to provide estimates of purchases, activity patterns, and in this case, travel behavior. In addition to all of the demographic and activity pattern behaviors, extensive data is collected on shopping behavior, personality traits and media use behavior of the participants. Error is estimated to be to ± 2 to 3 percent depending upon the year of data collection and sample representation. A limitation of Warnick's studies and justly noted is the lag time in monitoring the trends. The data are usually two to three years behind the current publication

year. While limitations in the data do exist, in the most recent years (1995 and 1996) the data have been made available in new formats that allow new data extraction and analysis possible. The data are now available on compact disk (CD) and individual case by case data can be extracted and analyzed. Prior to 1995, data were available only in printed volumes and additional analyses were extremely limited. Trend analysis was limited to recording, monitoring and tracking. Now, the new data formats allows the researcher to go behind the data to examine the types of travelers who come to New England in much more detail. The depth of analysis has been greatly enhanced with the new data format release.

For this study, a number of data variables were examined. They include participation rates, net travel market of travelers, a selected demographic variable (age); and a regional geographic variable. These variables were the similar variables from the previous two studies and were examined for continued trend analysis purposes and covered the years of 1980 through 1996. Additional variables included reason(s) for trips, time of year traveling, type of traveler, state destination and selected recreation activity markets including water, winter, natural resources and community based recreation activities. However, only two years of data were available here – 1995 and 1996. All of these variables were linked to the New England destination traveler.

For the purposes of this study, “domestic travel to a New England destination” is defined to represent those “individuals who have traveled over 100 miles one-way, overnight to an away-from-home destination specifically within the six-state region (which includes the states of Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire and Maine).” The years monitored for overall trends were 1980 through 1996 data collection years. Only 1981 data were extrapolated. Period averages were reported and adjusted annual average change rates were calculated and presented. Data on the additional variables (i.e., reasons for trip, etc.) were collected but not trend analyzed due to the fact that only two years of data were available and few trends can be reflected in this short time period. Target region composition indicates the place of origin of the traveler to New England and breaks the country into four broad regions – Northeast, South, Midwest and West. The travel activity markets examined the following groupings of activities: water-based activities which include power boating, swimming and fresh water fishing; winter-based activities which include downhill skiing, ice skating and cross country skiing; natural resource based activities which included hunting, hiking, camping, mountain biking and community based activities which included golf, tennis and inline skating.

Rates of New England destination travelers were compared with the national participation rates and reported through a market index number of 100. To read the market index data, the following example provides a reference. If a national participation rate is 10% and the New England traveler participation rate for the activity is 20%, the market

index is 200% (20% divided by 10% equals 200%). The means the New England travelers’ rate is twice the national rate or 100% higher than the national rate.

Selected Findings

Discussions here cover participation rate and market changes, age demographic changes, geographic changes, additional trend variables and end with New England traveler activity participation patterns. Only key findings are discussed, but readers are encouraged to examine in detail the trends and rates within tables. The full tables may be obtained by writing to the author.

Participation Rates and Travel Market. The average participation rate of all adults selecting New England as a primary destination for the period 1980 through 1996 was 3.7%. In the 1993 study (Warnick 1993) the average was 3.7% and in the 1996 study (Warnick 1996) the average was 3.4%. The selection of New England as a primary destination has indeed rebounded. The adjusted annual change rates in participation indicated 2.3% increase over the period with the added years. This compares to the 1993 study finding of a 2.3% decline per year from 1980 to 1991 and the 1996 finding of a 3.7% decline in the participation rates. The selection of New England as a primary destination steadily increase from 1992 through 1995 with only a slight decline in 1996. The peak year was 1995 when 9.4 million destination travelers selected New England and the low point continues to be 1991 when only 4.2 million destination travelers traveled to this region. During this period the average annual change rate in raw number of travelers was up about 5% per year.

Participation Rates Changes by Age Categories. The choice of New England as a primary destination increased across all six age segments with the added years of 1994 through 1996. The age segments included average annual increases in participation of 18 to 24 year olds by 4.6%; of 25 to 34 year olds -- increased by 7.4%; 35 to 44 year olds -- increased by 4.2%; 45 to 54 year olds -- increased by 2.0%; 55 to 64 year olds -- increased by 7.9%; and 65 year olds and older -- increased by 7.4%. In comparison the 1993 study found only two age segments growing for destination choice (35 to 44 year olds and 65 and older) and the 1996 study found only the oldest two age segments growing (55 to 64 year olds and 65 and older). The growth is still strong among the old age segments, those 55 and over which has been documented in each of the last three studies. However, equally encouraging has been the rebound in the youngest adult age groups – those under age 35 (18 to 24 and 25 to 34). These rate changes equal or exceed the overall rate.

New England’s Geographic Markets. New England increased as a destination choice for all four geographic markets. The majority of travelers to New England still remain those people who reside in the Northeast. The participation rate changes by regions including the following: the Northeast -- increased by 5.5%; the South - - increased by 11.6%; the Midwest -- increased by 9.9%;

and West -- increased by 13.4%. The participation rate of travelers from the Northeast has more than double since 1991 (from 6.4% in 1991 to 14.3% in 1996) and from the West, the rate has tripled (from .9% in 1990 to 2.7% in 1996). Due to visitors from regions other than the

Northeast increasing, the relative share of the total visitor pool for the Northeast actually appeared to have declined slightly. Table I contains the data on participation rates for overall trends and selected demographic and geographic variables.

Table 1. New England Primary Destination Choice

	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>1996</u>	<u>Period Average</u>	<u>Adj. Annual Change Rate</u>
Adult Part. Rate	4.3%	3.5%	3.3%	5.0%	4.9%	3.6%	3.7%
#NE. Trav. ('000)	6,814	5,960	5,903	9,467	9,396	6,285	4.9%
Age Cohorts							
	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>1996</u>	<u>Period Average</u>	<u>Adj. Annual Change Rate</u>
Adult Overall Rate	4.3%	3.5%	3.3%	5.0%	4.9%	3.6%	3.7%
18 to 24	3.3%	3.0%	1.9%	3.9%	4.2%	2.8%	4.6%
25 to 34	5.8%	3.8%	3.5%	5.8%	5.5%	3.7%	7.4%
35 to 44	5.2%	4.3%	4.5%	5.0%	5.4%	4.2%	4.2%
45 to 54	5.1%	4.0%	3.9%	5.4%	5.1%	4.2%	2.0%
55 to 64	3.5%	3.3%	2.5%	5.8%	5.6%	3.8%	7.9%
65 and Older	2.3%	2.5%	2.6%	3.8%	3.2%	2.7%	7.4%
Other Age Cohorts							
	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>1996</u>	<u>Period Average</u>	<u>Adj. Annual Change Rate</u>
Adult Overall Rate	4.3%	3.5%	3.3%	5.0%	4.9%	3.6%	3.7%
18 to 34	4.7%	3.5%	2.9%	5.1%	5.0%	3.4%	5.5%
35 to 49	5.3%	4.1%	4.4%	4.8%	5.2%	4.2%	3.2%
50 and Older	3.2%	3.2%	2.7%	5.0%	4.5%	3.4%	5.6%
Target Region							
	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>1996</u>	<u>Period Average</u>	<u>Adj. Annual Change Rate</u>
Northeast	14.3%	10.8%	10.2%	13.2%	14.3%	10.6%	5.5%
South	1.8%	1.4%	1.4%	4.4%	2.0%	1.7%	11.6%
Midwest	1.3%	1.8%	1.7%	1.2%	2.8%	1.7%	9.9%
West	1.3%	1.0%	0.9%	3.9%	2.7%	1.6%	13.4%
Target Region Composition							
	<u>1980</u>	<u>1985</u>	<u>1990</u>	<u>1995</u>	<u>1996</u>	<u>Period Average</u>	<u>Adj. Annual Change Rate</u>
Northeast	72.9%	66.7%	66.3%	54.4%	58.7%	62.5%	-0.7%
South	10.6%	10.1%	10.2%	20.9%	9.5%	13.1%	4.0%
Midwest	10.3%	17.6%	17.8%	8.4%	20.3%	16.3%	14.5%
West	6.3%	5.6%	5.8%	16.3%	11.5%	8.7%	10.1%

*Data not readily available for year...data extrapolated for 1981.

Due to space limitations only data from 1980, 1985, 1990, 1995 and 1996 reported here.

Additional Trend Variables. For the first time, the new form of the data has allowed more in-depth analysis of who the travelers to New England are. This goes beyond the basic demographic profiling. Here, four new variables were selected. Although no trends are reported, they do provide insights in the latest recorded years. Reason for New England trips including five possible answers – business for self; business and pleasure; accompanying

spouse on business; vacation; and personal reasons (not vacation). Between 50 and 60% of all travel to New England appears to have some pleasure component. About 49% of all travelers to New England in 1995 indicated their reason for travel was vacation purposes and in 1996 that percentage was 44%. An additional 7 to 8% indicate that they combined pleasure with business travel and/or accompanied a spouse on a business trip. Travel to New

England for personal reasons excluding vacation held at 26% for years. Approximately 14 to 15% of all travelers indicated their purpose was self-directed business travel.

About 40-45% of all travelers indicate travel to New England in the summer months of May-June-July and August. January/February travel accounts for a steady 13% and the fall foliage months of September/October accounts for 12 to 16% of all New England destination travelers.

People who travel frequently, more than four trips per year, comprised 62% of New England destination travelers in 1995 and 43% in 1996. The states in order of participant share of all New England destination travelers find Massachusetts with a 36-37% share, Maine -- 19-20% share, Connecticut -- 13% share; New Hampshire -- a fluctuating share of 10-15%; Vermont -- a steady 10% share and Rhode Island -- 7-9% per participant share.

Table 2. (Continued).

Time of Year Travel*	<u>Number of Travelers</u>	<u>Participant Share</u>
Jan-Feb	2,734	13.1%
Mar-Apr	2,997	14.4%
May-Jun	3,822	18.4%
Jul-Aug	4,845	23.3%
Sept-Oct	3,454	16.6%
Nov-Dec	2,414	11.6%

Type of Traveler	<u>Number of Travelers</u>	<u>Participant Share</u>
Heavy (4+)	4,024	42.5%
Moderate (2-3)	3,747	39.6%
Light (1)	1,305	13.8%

State Destination*	<u>Number of Travelers</u>	<u>Participant Share</u>
Connecticut	1,568	13.5%
Maine	2,259	19.5%
Massachusetts	4,216	36.4%
New Hampshire	1,723	14.9%
Rhode Island	771	6.7%
Vermont	1,179	10.2%

*Participants could designate more than one category per variable. "N" reported in '000.

Activity Participation of New Travel Market. While these findings do not indicate if the New England destination travelers do the selected activities while on vacation or on trips to the region, their relative participation rates in these selected recreational activities would more than likely indicate that they do participate. Of all New England based destination travelers, it was found that the participation rates of these individuals were higher than the national averages for both 1995 and 1996 in all recreational

activities except one -- hunting in 1995. Activities with rates of more than twice the national average for New England destination travelers included cross country skiing, downhill skiing and hiking in 1996. Nationally, only about 7% of the population hikes while of the New England based destination travelers, 18% hike. Furthermore about 18-21% camp, 21-22% golf, 46-49% swim, 12-14% play tennis, 6% cross country ski, 10-11% downhill ski and 7% mountain bike. Table 3 contains these data.

Table 3. New England Travel Market: Activity Participation of NE Destination Travelers, 1995-1996

Activity Clusters	Year = 1995 (n=9,467)			
	<u>Nat. Rate</u>	<u>Number of Travelers</u>	<u>Participant Rate</u>	<u>Mark. Index</u>
<i>Water:</i>				
Power Boating	6.4%	898	9.5%	148.4%
Swimming	32.2%	4,671	49.3%	153.1%
Fresh Fish	15.6%	1,569	16.6%	106.4%
<i>Winter:</i>				
Downhill Ski	5.6%	1,036	10.9%	194.6%
Ice Skate	4.2%	663	6.7%	159.5%
X Country Ski	2.4%	589	6.2%	258.3%
<i>Natural Resource:</i>				
Hunting	7.1%	548	5.8%	81.7%
Hiking	11.4%	1,704	18.0%	157.9%
Camping	12.6%	2,002	21.2%	168.3%
Mtn. Biking	5.0%	719	7.6%	152.0%
<i>Community:</i>				
Golf	14.1%	2,095	22.1%	157.0%
Tennis	7.9%	1,366	14.4%	182.7%
Inline Skating	5.1%	813	8.6%	168.6%
Activity Clusters	Year = 1996 (n=9,396)			
	<u>Nat. Rate</u>	<u>Number of Travelers</u>	<u>Participant Rate</u>	<u>Mark. Index</u>
<i>Water:</i>				
Power Boating	6.2%	1,061	11.3%	182.3%
Swimming	31.0%	4,329	46.1%	148.7%
Fresh Fish	15.0%	1,560	16.6%	110.7%
<i>Winter:</i>				
Downhill Ski	5.5%	1,060	11.3%	205.5%
Ice Skate	4.1%	745	7.9%	192.7%
X Country Ski	2.3%	558	5.9%	256.5%
<i>Natural Resource:</i>				
Hunting	8.4%	838	8.9%	106.0%
Hiking	7.2%	1,682	17.9%	248.6%
Camping	13.6%	1,716	18.3%	134.6%
Mtn. Biking	4.7%	697	7.4%	157.4%
<i>Community:</i>				
Golf	15.3%	2,052	21.8%	142.5%
Tennis	7.8%	1,122	11.9%	152.6%
Inline Skating	5.5%	814	8.7%	158.2%

"N" reported in '000 for number of travelers, Mark. Index is market index, indexed to national average for activity.

Conclusions and Implications

Earlier studies have indicated that New England was a mature travel destination. However, this examination of these data indicate that the New England destination market has rebounded. The earlier Warnick studies examined the New England destination market as a total market area and were limited in scope of analysis. However, new data variables provide new insights into this market.

While the Simmons data are somewhat dated by the time research can be undertaken, the opportunity to further examine the data are very useful. For example, in this study for the first time we were able to break apart the data to examine such questions as do New England travelers travel frequently? Do New England destination travelers participate in certain recreational activities? What are the reasons people travel to New England? We now know that frequent travelers comprise a large percentage of the travelers who select New England as a destination. Furthermore, the majority of travel to New England has some pleasure component. And, we also now know that people who do visit New England are highly active recreation enthusiasts. Consequently, a more accurate picture of the New England destination travelers is being formed. However, limitations still exist within these large national survey data sets.

These data only provide information on whether or not the markets actually traveled to New England. The link to activity participation is only an association. There are no inquiries in the Simmons surveys which determine if New England travelers actually did these activities and if so, how often while in New England. Nevertheless, the associations are strong and one would expect that such high participation rates that a portion would indeed participate while in New England. While there is a high likelihood given the profile and participation patterns, one cannot be conclusive on this matter. This is a significant limitation of this data set and analysis. The data here also only refers to the number of travelers and their rate of travel as a percentage of the total US population. It does not address the volume or actual number of trips taken to New England.

The opportunity to now also look at what states are visited within New England provides us with a new sub-regional analysis. This may also provide information about how trends may affect regional marketing efforts. For example, if travel within New England changes, what states seem to benefit more or less from growth and decline patterns in travel. One cannot make any conclusion here on the basis of only two years of data; however, it is now possible with additional years and more patterns of change that these estimates and trends will become obvious. From these data we do now know that Massachusetts is the most popular choice in the New England.

Within recreational and outdoor markets, even more insights are now gained. New England travelers are highly

active in recreational pursuits. Not one of the 13 different activities examined with the exception of hunting found New England based travelers to be less active than the national average. In fact, most are far more active than the national rates. Within some activities, these travelers participate at rates one-half to two times higher than the national rates. This is also a very positive trend for New England's abundant outdoor recreation and resort facilities. In the previous Warnick studies (1996 and 1993), the author expressed concern with the decline in the younger and highly active adults who selected New England as their destination. But, these markets have returned and now younger adults and highly active adults from a cross-section of ages are indeed traveling to New England.

This review and update of travelers who picked New England as their primary destination provides us with new perspectives. The markets in the 90s are changing and revolving. It is clear that a simple examination of national and even regional trends can be misleading and may not provide the total picture for marketing and targeting purposes. Furthermore, changes can and do take place in a relatively short time span (two to three years) and in such magnitude that the overall trend pattern can be reversed. Nevertheless, more intense monitoring of travel and recreational activity trends is needed if New England is to continue as a major destination region.

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