

**UNDERREPRESENTED GROUPS IN RECREATIONAL
FISHING: A LITERATURE REVIEW**

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The Changing Face of Recreational Fishing in the United States

Until recently, research into the human dimensions of fisheries has focused on white males, the primary participant group in recreational fishing in the United States. In 2001, 34.1 million individuals aged 16 and over fished, and over 93% of these recreational anglers were white. In the same year, 74% of these anglers were men (DOI, 2002, pp. 15, 17). In 1996, 17% of the U.S. population age 16 or older fished. However, lower percentages of this U.S. adult population of women (9 %), African Americans (10%), and Hispanics (7%) participated in recreational fishing (FWS, 2000, page 14). These lower participation rates among women and minorities occur regardless of socio-demographic status. A 2002 study in Texas also found that Anglos were the most likely fishing participants. Anglos started fishing at a younger age, fished more years, and were more likely to have a powerboat than African Americans or Mexican Americans (Hunt and Ditton, 2002).

Because white males have been the predominant fishing participants, fishing opportunities in the U.S. have been largely catered to the needs and preferences of this demographic group. However, the demographic composition of the United States is predicted to change considerably in coming decades (Table 1), and ethnic minority groups could potentially account for a substantial increase in recreational fishing participants in coming years (Murdock et al., 1996; Hunt and Ditton, 2002). Between 2004 and 2050, the white population is predicted to grow by just 7.1%, while Asian, Hispanic, and African American populations are predicted to increase by 195%, 165%, and 52%, respectively (U.S. Census, 2000). Immigrants and their descendents are expected to account for a substantial amount of U.S. population growth—and potentially, recreational fishing participant growth—in coming years (Murdock et al., 1996).

Despite the increasing U.S. population, a decline in recreational fishing participation in several states was noted between 1991 and 1996, after a decade of increasing participation (Responsive Management, 1999). If minority groups participate less in fishing than their Anglo counterparts, there could be continued decline in this form of recreation as the percentage of the U.S. minority population grows.

	2004		2050		2004 to 2050
	Population*	Percent Composition	Population*	Percent Composition	Percent Increase
White	198,895	69.7%	212,990	52.8%	7.1%
Hispanic	37,059	13.0%	98,228	24.3%	165.1%
Black	35,049	12.3%	53,466	13.2%	52.5%
Asian/Pacific Islander	12,116	4.2%	35,759	8.9%	195.1%
Native American	2,145	0.8%	3,241	0.8%	51.1%
Total	285,264	100.0%	403,684	100.0%	41.5%
Source: 2000 U.S. Census. * Population values in millions					

However, there appears to be an interest among some underrepresented groups to participate more in fishing. A FWS review revealed that Hispanic and African American fishing expenditures increased by 50% and 43%, respectively, during the period between 1991-1996 (FWS, 2000, page 24). Furthermore, a Recreational Boating and Fishing Foundation (RBFF) study found that one-fifth of African Americans and Hispanics were interested in fishing, even

though they were not participants at the time (RBFF, 2002). The authors suggested that this group could be introduced to the activity with proper marketing. Another report found that African Americans and Hispanics who did not fish expressed a high interest in the sport (Responsive Management, 1999). Thus, although the interest in fishing appears to exist, actual participation in the sport by these groups is not occurring.

Unfortunately, we know little about the preferences and behaviors of these groups (Hunt and Ditton, 2002), and in particular we do not know what is keeping those in the subpopulations who expressed interest in fishing from participating or participating more often. One area of research that may be helpful in explaining the current lack of participation of minority groups in recreational fishing is that of leisure constraints. If fisheries agencies intend to attract more minorities and women into fishing, research scientists and practitioners need to do more to understand not only the preferences of these groups, but also the factors that keep these groups from fishing in the first place or from fishing as often as they would like. Our existing body of knowledge, based largely on white males, is inadequate for this purpose.

Leisure Constraints Research

Barriers to leisure – or leisure constraints – were first measured formally as early as the 1960s, when the first Outdoor Recreation Resources Review Commission (ORRRC) reports were published. Most formal research in the field occurred from the 1980s through today (Crawford et al. 1991). Early constraints research focused primarily on participation vs. non-participation. That is, lists of items were tested as “barriers” that prevented a person from participating in a desired activity. While this approach would later be criticized for not adequately explaining nonparticipation, two general items have emerged that are considered constraints by a wide variety of people: time and money (Jackson, 2000; Kay and Jackson, 1991). Other patterns that

have emerged in reported constraints include the availability of facilities, personal skills and abilities, and access to transportation and to the recreation resource (Jackson, 1993).

While reported barriers provided a very applied approach to understanding leisure constraints, recent research found that these lists of barriers did not adequately explain actual participation. For example, Kay and Jackson (1991) found that people reported recreation constraints even though their participation was not greatly affected. In some cases, people participated less than they wanted because of a reported constraint, but they did not cease participation altogether. In other cases, participation was not reduced at all, even if respondents listed a constraint as “a major influence on their leisure” (p. 310). Shaw et al. (1991) also found that reported leisure constraints did not necessarily serve to reduce participation. Kay and Jackson termed this “participation despite constraint.” In 2000, Jackson referred to the phenomenon as “constraints negotiation,” meaning that people will find ways around constraints if they are motivated and perceive that the benefits of the activity are important. Jackson (2000) further notes that constraints are experienced differently by different people; reported constraints are felt with varying intensity and may be influenced, among other things, by life stage. Also, the same constraints may vary in their influence on different types of activities. For example, lack of money could be a constraint, but it would be experienced differently for dog walking than for a concert, since the former is essentially a free activity and the latter involves the cost of a ticket (Kay and Jackson, 1991). In addition, personal constraints may change as a person becomes more involved in an activity; as a person advances and becomes more skilled, he/she will encounter different types of constraints (Nadirova and Jackson, 2000). Because of the different ways that constraints are experienced based on personal character, activity, or level of experience, simply developing a basic list of items that interfere with participation may not be useful for an agency seeking to increase or predict participation.

To help explain the varying influences that constraints have on different groups of people, Crawford and Godbey (1987) posited that people really experience three different types of constraints: structural, intrapersonal, and interpersonal. Structural constraints are the barriers between a desired activity and participation (e.g., time, money, skill) that was the focus of much early constraints research. Structural constraints are also referred to as “intervening,” since they occur after a preference has been formed (Jackson, 2000). Intrapersonal constraints are related to individual characteristics, which influence leisure preference. Some examples of intrapersonal constraints include, stress, anxiety, and perception of ability. This type of constraint does not intervene between desire to participate and participation; rather, an intrapersonal constraint occurs before a recreation preference is formed. Finally, interpersonal barriers involve the interactions between people. For example, an individual may not have a partner to recreate with or someone’s preferences may change when he/she is with a partner (Crawford and Godbey, 1987).

Crawford et al. (1991) take the 1987 leisure constraints model a step further, saying that the three constraint types are hierarchical. That is, there is an order in which a person will experience intrapersonal, interpersonal, and structural constraints. First, a person will develop a preference for leisure, which may be influenced by intrapersonal constraints. Then, interpersonal constraints (such as lack of partners), may become a factor. Finally, structural constraints only become an issue once a leisure preference has been formed. Raymore et al. (1993) found support for the 1991 hierarchical constraints model. Specifically, the authors found evidence for the existence of intrapersonal constraints, suggesting that the exclusion of individuals who have not yet formed a preference for an activity from studies was a flaw in leisure constraints research.

In a related study, Jackson and Dunn (1991) shed further light on the complexities involved in defining "leisure constraints." The authors found that the aspect of leisure being constrained may affect the perception of whether an item is a barrier to participation. That is, people may face constraints to starting a new activity or constraints that cause them to cease participation in a former activity. While the difference between the two for study respondents was small in most cases, the authors did find significant differences in two areas. For example, equipment costs were more frequently identified as a barrier to starting a new activity, while physical ability was listed more frequently as a reason to stop participating in an activity. Jackson and Rucks (1993) found further support for the idea that leisure constraints are not "internally homogenous." In this study, costs, lack of partners, lack of skills, lack of transportation, and lack of knowledge of where to participate were more often listed as barriers to participating in a new activity than to ceasing an activity. The authors suggest that constraints can not be equally applied to different aspects of leisure participation.

Jackson (2000) suggests that future research on leisure constraints should focus on the phenomenon of "constraints negotiation," should focus more on the influence of life stage (for example, how marriage, children, and divorce relate to constraints), and how constraints offer opportunities for new types of leisure. Jackson and Scott (1999) note that some studies have been done that focus on population subgroups, such as women and minorities. However, these subgroups are not represented as independent variables (e.g. "race" or "gender") in the Crawford et al. (1991) hierarchical constraints model.

In summary, leisure constraints research has evolved from early studies that listed barriers to participation to more recent considerations of the complex ways in which people form leisure preferences and navigate around leisure constraints. Under the Crawford et al. (1991) hierarchical leisure constraints model, three different types of constraints should be

considered: intrapersonal, interpersonal, and structural. Additionally, the type of participation should be considered: whether one is constrained from beginning a new activity, continuing to participate in an activity, or in participating more often in an activity. Finally, individual characteristics, such as life stage, could influence how an individual experiences and negotiates leisure constraints.

Ethnic Minority Groups and Leisure Constraints

Leisure constraints research is being used not only to understand the factors that influence recreation participation in general, but also how these factors are additionally distinguished by racial, ethnic, or gender differences. In an article titled "ORRC at 40!," the National Parks Conservation Association highlights the need to address the low participation rates among minority groups in recreation at U.S. parks (ORRRC, 2002). The report suggests that there is an "indifference towards natural resources and recreation opportunities" among some Americans, which may result from "feeling unwelcome, suffering the effects of negative cultural perceptions, lack of positive role models, poor marketing efforts, and/or the insults of token inclusions" (page 110). The report reviews three hypotheses that have been formulated to help explain the lower participation among some minority groups. These are: marginality, ethnicity, and discrimination. The theory of marginality states that some socioeconomic groups have limited access to resources because of historic discrimination. The theory of ethnicity states that there are cultural factors that determine preferences for recreation activities. Finally, discrimination may be real or perceived in park settings (ORRRC, 2002).

Floyd et al. (1994) used African American's self-perceptions of social class to determine how class and race affect leisure preferences. They tested the notion that those in similar social classes may exhibit similar leisure preferences. For example, minority African Americans in the

middle class may have become assimilated into mainstream cultural preferences. If this were the case, the marginality hypothesis would be supported. Data were gathered through a national sample of 1,469 completed telephone interviews. Nine percent of the responses came from African Americans. Respondents were asked to name their favorite leisure activity, which were grouped under leisure preference categories, such as "immobile," "risk-skill," "outdoor-individual," "popular art," "exercise-health," "sports," "games," "mobility," and "associations-sociability" (page 164). Respondents defined their own racial and social class categories. The frequencies of listed activities were then ranked by social class and by race.

As found in previous studies, African Americans ranked sports, exercise, and social activities highly, regardless of social class. However, the authors found mixed support for the hypothesis that African American and white respondents who define themselves in similar social classes would have similar leisure preferences. There were similar leisure preferences among racial groups in the middle class. However, differences in leisure preferences between races emerged among the poor and lower working class, especially for African American women. The findings did not offer strong support for either the marginality or ethnicity hypotheses. Rather, the authors suggest that marginality and ethnicity may interact to explain leisure preferences, and should be considered together in the context of race and class (Floyd et al., 1994).

Phillip (1995) suggested that discrimination, rather than ethnicity and marginality, should be a focus of future studies on leisure research. With the understanding that race has been a large constraint to many in education, housing, and employment, Phillip suggests that it is problematic that race is not considered as a separate factor that could influence leisure participation and preference in the Crawford and Godbey (1991) hierarchical constraints model. Phillip cautions that the intrapersonal constraints of the Crawford and Godbey model should be

approached cautiously in the context of race. That is, individual psychology can not be separated from cultural issues, like prejudice and discrimination. Phillip focuses on African Americans in his study, suggesting that there have been conflicting research findings about how race affects leisure preference and participation. He also notes that race relations have been changing in the U.S., making continued studies of race important.

Phillip selected a sample of respondents from households in a higher-income, racially integrated, single-family home neighborhood in a medium-sized metropolitan area. Results were calculated from 136 African American respondents and 108 European American respondents who lived in the sample area. Respondents were asked to rate how “appealing” they found 20 leisure activities and how “comfortable” they would be doing them. They also were asked to provide basic socioeconomic information. African American and European American respondents had similar socioeconomic characteristics.

Using the theories of marginality, ethnicity, and discrimination to help explain their findings, the authors found that African Americans and European Americans gave similar appeal and comfort rankings to the activities. This supports research by others (including Floyd et al., 1994) showing that fewer differences exist between racial groups who are in the same middle-class income bracket. This offers some support for the marginality hypothesis.

However, Phillips (1995) points out that on an activity-by-activity basis many differences by race still exist. The two groups varied in their ratings of the appeal of 12 out of the 20 activities. African Americans found seven of the activities less appealing than European Americans, and five of the activities more appealing than European Americans. Likewise, the two groups rated their level of comfort with activities differently for 12 of the 20 activities. African Americans only felt more comfortable than European Americans in two of these activities: going to fairs and malls. In the case of fishing, African Americans gave lower appeal

and comfort ratings to the activity than did European Americans. However, out of the 20 activities listed, African Americans ranked fishing more highly in appeal (7th) and comfort (8th) than European Americans (13th in appeal and 15th in comfort) (pages 116 and 117). These differences in specific activities lend some support for the ethnicity hypothesis.

Because of the mixed support for the two hypotheses, Phillip suggests that more focus should go to discrimination. He notes that the activities that African Americans rated as less appealing or were less comfortable with occurred in areas away from their place of residence: “mountains, beaches, zoos, festivals, restaurants...”. The activities that African Americans were more comfortable with or found more appealing were in the neighborhood: “watching TV, malls, fairs.” This finding could be explained by African American’s feelings of perceived discrimination in more distant public spaces. At the same time, the authors note that discrimination is linked to the marginality and ethnicity theories.

Perhaps theories of ethnicity or discrimination help to explain differences in recreation preferences among minority groups. For example, in a study of Asian, African American, Latino, and white visitors to a Chicago park, Gobster (2002) found that minorities traveled a farther distance to visit the park, and were more likely to visit in large, family-oriented groups to socialize than whites. Whites, on the other hand, were more likely to use the park as individuals or couples and to come for exercise. Hunt and Ditton (2002) also noted the more “collectivistic culture” of minority groups, compared to the more “individualistic culture” of the white majority. Hutchinson (1987) found that Hispanics tended to be in groups in a Chicago park more frequently than African Americans or Whites. Dwyer and Gobster (1991) found a preference for activities that involve greater social interaction among African Americans in Illinois. Gobster (2002) found that Asian, African American, and Latino visitors to an urban park in Chicago were more likely to visit in large, family groups than white

respondents. Asian visitors were most likely to fish, and African Americans were most likely to dislike food and parking costs, and to perceive prejudices of staff and park police. Gobster questions how prejudice influences recreational behavior, activity preference, and the availability of resources.

A study of Poles in Canada found that this minority ethnic group faced different constraints than the “white majority” group that they are often considered a part of (Stodolska and Jackson, 1998). The authors review the ways in which ethnicity can affect recreation participation, as a factor that can influence the motivations, constraints, and benefits associated with leisure. Previous studies on minority participation had focused on groups that were both racially and ethnically different from the white majority (e.g., African Americans, Hispanics, and Asian Americans). The authors cite examples of how discrimination in work, education, and leisure had taken place against these racial ethnic groups. By studying poles, ethnicity could be separated out as a factor influencing leisure constraints.

Results were calculated from 13 in-depth interviews with Poles in Alberta, Canada. These interviews were used to design a questionnaire that was distributed to 500 Polish immigrants. Results were calculated from 264 completed questionnaires. In general, this white ethnic minority group experienced much less discrimination in leisure settings than at work or school. Poles experienced almost no violent discrimination. These findings differed from previous studies of racial minority groups in leisure settings. The authors suggested that Poles involved in leisure are not so easily identified by other recreation groups because of their appearance. Also, language may be less of a factor in leisure settings than at work or school and would not be cause for discrimination. The authors also suggested that Polish groups may choose to recreate in enclosed ethnic groups, which would shield them from discrimination. At the same time, the authors point out that this enclosure strategy could eventually cause other

recreating groups to resent Polish recreation groups. Nevertheless, this strategy may represent a “constraints negotiation,” in which a minority ethnic group has found a way around barriers to leisure time.

Shinew and Floyd (2004) highlight the continued discrepancies between Whites and African Americans in the U.S. Despite gains in income levels, education, and employment status among African Americans, racial inequalities in these areas still exist. Also, due to discrimination in housing and labor markets, residential segregation between whites and minorities remains high, especially for African Americans. Many minorities live in the segregated, cash-strapped, central cores of American cities due to these policies (Bullard et al., 2000). Additionally, there is evidence to suggest that African Americans are more likely to be sensitive to and perceptive of racial discrimination and racism than whites. Shinew and Floyd argue that these continued inequities in socioeconomic status, power and prestige by race must be considered in studies of constraints to leisure for minority groups.

Shinew and Floyd offer a review of the literature relevant to race and leisure constraints. First, the marginality, ethnicity, and discrimination hypotheses are reviewed. In the context of discrimination, they point out that African Americans may protect themselves from further discrimination by avoiding activities that are seen as “white.” This is similar to the isolation behavior of Poles in Canada found by Stodolska and Jackson (1998). The authors review some articles that have applied the three hypotheses, showing that support for the different explanations for recreation constraints by race is mixed. In other words, ethnic preferences, access to and awareness about resources, and concern about white hostility/discrimination in recreation settings can all play a role in constraining minority groups in leisure.

Shinew and Floyd suggest that no viable framework currently exists for understanding race and leisure constraints. While marginality, ethnicity, and discrimination have been used to

study race and leisure, the types of discrimination have not been clearly defined. Furthermore, the Crawford and Godbey hierarchical constraints model does not present race as a separate and primarily important factor (Phillip, 1995). Some authors have noted that social and cultural perspectives of minority groups have not been adequately explored in leisure and race research. Furthermore, more could be done to consider how context affects the way that subgroups (e.g., ethnic minorities, women, the elderly) approach constraints negotiation. For example, women may face specific issues of body image and concerns over violence that affect how they overcome constraints to recreation (Shinew and Floyd, 2004).

Shinew and Floyd also point out that studying race and leisure constraints requires an understanding of the many different identities that people within a racial group have. In a study of African American and Native American women, Henderson and Ainsworth (2001) encountered similar difficulties. They found their research complicated by the multiple identities that all people have. In trying to isolate race, for example, they suggest that a researcher must accept that race is just one factor among several characteristics, including age, religion, class, disability, and sexual orientation that could affect leisure preference.

Shinew and Floyd (2004) offer a new framework for understanding race and leisure, which is based upon the ideas of “resistance” and “resourcefulness.” The framework is based on the idea that African Americans have less social power and economic resources; this affects how this group experiences leisure constraints. (The authors note that the framework could likely also be applied to other minority groups). There are different forms of resistance that African Americans may take to gain a sense of empowerment in recreational settings: “pioneer,” “parallel,” and “abstention.” Pioneers may participate in an activity even though they are a very small minority; they break through the barriers to their participation by participating. Parallel resistance involves doing the same leisure activities as the majority, but

separately (e.g., an African American ski club). Abstention involves intentionally not participating in some form of leisure as a form of protest. To engage in leisure resistance, one needs resources; there are four resources described by the authors: material (money, education, skills, time), relational (social capital and social networks), symbolic (cultural identity/ethnic pride), and option (leisure alternatives and choices). The authors suggest that gaining an understanding of leisure resistance and the resources available for this resistance may help to better understand leisure participation by race.

In summary, racial and ethnic minorities in the U.S. have traditionally had lower participation rates in outdoor recreation activities than the white majority. Three theories have been used to try to understand this difference: marginality, ethnicity, and discrimination. Studies have yielded mixed support for these three theories. Some authors suggest that race is not adequately considered in Crawford and Godbey's (1991) hierarchical constraints model and that a new framework should be established to study minority outdoor recreation. Shinew and Floyd (2004) offer "resistance theory" as one alternative. At the same time, others point out the difficulties in defining race and ethnicity, since people have many identities beyond race related to their individual situations (e.g., age, income, job status, place of residence).

A few broad generalizations may be applied to understanding racial and ethnic minority participation in recreational fishing. In general, minority groups in the U.S. have lower income levels and tend to live in more urban locations. Lower incomes could translate into fewer resources available for recreation activities. Urban locations may be far away from recreation opportunities. Additionally, minority groups, particularly African Americans and Hispanics, may have a social structure that is more collectivistic than whites. This could result in the tendency to participate in recreation activities in larger, family groups. Jackson and Scott (1999) note that little research has been done on how leisure constraints affect groups of people. It is

possible that the focus of constraints research on individuals could partly account for the limited knowledge that we have about constraints faced by more group-oriented minority populations.

Women and Leisure Constraints

While women spent more money overall on fishing trips and equipment when compared to Hispanics and African Americans in a recent survey (FWS, 2000), they are still a minority among recreational anglers. Also, while women comprise 51 percent of the U.S. population, just 26 percent of anglers in the U.S. were women in 2001 (U.S. Census, 2000; DOI, 2002).

Jackson and Henderson (1995) demonstrated the importance of considering the context of lifestyle in comparing how women and men experience leisure constraints. The authors used data from two Alberta General Recreation Surveys to examine two questions. First, how do women and men experience leisure constraints? Second, how does the context of lifestyle (e.g. age, income, family structure) affect how men and women experience leisure constraints? Survey respondents were asked to rate the importance of 15 listed reasons that they may be constrained in their leisure. Comparisons were made between men and women, and by age, household structure, and household income.

The authors found that even under the controls of age, income, and family structure, women were more constrained in leisure than men. While no difference was shown between men and women for general constraints related to "Commitments, Facilities, Geographical Isolation, or Cost," women reported experiencing individual constraints at a greater intensity than men. Women were more constrained than men by items related to the context of their lives (e.g. finding partners, lack of physical ability, not knowing where to recreate, not knowing

where to learn how to recreate, not having transportation). At the same time, there was also considerable variation within-genders by context. That is, context variables, like age, income, and family structure, caused as much difference in the impact of constraints as gender. The authors considered these context variables to be "mediating factors that alter, reinforce, or alleviate constraints for women" (p. 47).

Jackson and Henderson (1995) suggest that the ability of context to affect one's experience of leisure constraints demonstrates that gender role, rather than biological sex, is important to consider when analyzing constraints faced by women. Women are not more constrained in leisure simply because they are biologically female. Rather, some women may live in a cultural context in which they take primary responsibility for children, make less money, and feel obligated to care for others. The authors suggest that men in similar cultural roles (e.g., single fathers) may face similar constraints.

Thrane (2000) examined two competing hypotheses for why women may have less leisure time than men. The first hypothesis, "women's doubleday," suggests that paid work time affects women's leisure time more negatively than men's leisure time, because women will continue to do more unpaid housework than men. In other words, when men have time away from paid work, they have leisure time. When women are away from paid work, they use the time to do household chores. The opposite hypothesis, "dependent labor theory," more simply suggests that men's leisure is constrained by paid work, while women's leisure is constrained by housework. Prior studies had shown mixed support for the two hypotheses, partly because of the different ways that populations were sampled and leisure was measured.

Thrane (2000) tested the two hypotheses using three surveys administered in Denmark, Sweden, and Norway between 1996 and 1997. The surveys involved face-to-face interviews and questionnaires. Respondents, age 18 and older, were asked to indicate number of hours per

weekday spent doing hobbies, leisure activities, or sports. Leisure time between men and women on weekdays was compared. Then, context items, including employment status, school enrollment, hours of daily housework, age, marriage, and the presence of small children, were compared to see how they differently affected men's and women's leisure time.

In general, women in all three countries reported having less weekday leisure time than men (an average of about 20 minutes less per day). However, the context variables provided mixed support for the two tested theories. Total time spent on housework had no significant effect on either women's or men's leisure time, a finding that does not support labor dependent theory. However, labor dependent theory was supported by the finding that men's leisure time was more negatively affected by paid work than women's leisure time. Full-time employment and school enrollment had the most negative effects on leisure time for men and women, with men experiencing greater constraints to leisure by these items. The double day theory was supported by the finding that women were more constrained than men in leisure by having children. However, as for paid work and school, children negatively affected leisure time for both men and women.

In examining some areas to consider in future research, Thrane (2000) suggests that men and women may define leisure time differently. For example, women may consider shopping to be leisure time. If men do not consider shopping to be leisure, this difference would increase women's perception of their own leisure time. In another example, men may not consider family time as leisure time, while women would. Thus, one challenge to understanding leisure constraints in the context of gender is finding a standard way to measure leisure time. A second challenge, suggests Thrane, is recognizing that gender roles are changing over time. The context of these changes must be accounted for in future studies.

Brown et al. (2001) examined the leisure constraints faced by women with young children in New South Wales, Australia. Their study was inspired by a national report that revealed that young Australian mothers had less leisure time than non-mothers, and that Australian women were generally less physically active than men. Brown et al. chose to consider the reasons why mothers were not as active as they wanted to be, and how levels of social support related to physical activity. Sixty-one child care centers in the region were given a socioeconomic index rating. Then, 21 centers were chosen to represent different economic ratings. All mothers at the study centers were given a survey that asked questions about number of children, children's ages, marital status, living arrangements, work status, and occupation. Measures of physical activity, as related to transportation, leisure, and work, were also taken. Women were asked whether or not they would like to be more physically active. They were presented a list of 11 constraint items and asked to rate their applicability to them. Additionally, women rated their current physical activity compared to before they had kids and when they were single. They were also asked to rate the support they received from partners to be physically active.

The surveys revealed no significant difference in leisure time among the three different socioeconomic groups. Ninety-three percent of respondents indicated that they would like to be more active. Lack of time (because of children, housework, shopping) and lack of energy were common barriers listed. Strategies to overcome these constraints included: exercise before breakfast, convincing partners to watch kids, and meeting with groups of mothers to exercise and take turns watching kids. Over 85% of women had exercised more before they had kids and before they were married (p. 138). Women in higher socioeconomic areas were more likely to receive support from their partners to exercise (through shared domestic responsibilities) (Brown et al., 2001).

The authors' concluded that structural constraints (e.g., time, money, energy) and ideological constraints (e.g., sense of commitments) constrained young mothers from being as active as they wanted. Some women had better social support to allow them to be more active than others. In all socio-economic groups, some women were able to overcome constraints and be active. However, those of lower socio-economic groups reported more that money is a constraint. There was a mix of practical and ideological reasons why women had less leisure time than men. On a practical level, women had less leisure time because of children, housework, shopping, and paid employment. But the authors note that these constraints are in the context of an ideology about women's role in society. That is, women may prioritize others in the family and feel that they have responsibility for taking care of children (Brown et al., 2001). This supports Jackson and Henderson's (1995) suggestion that women's experience of constraints is more affected by gender role than biological sex.

Floyd et al. (1994) found that African American females of the poor and working class had different leisure preferences than whites and African American males of the same class. They suggest that the double issue of racism and sexism could account for this difference. Black women tend to have the lowest incomes of all groups. African American women in lower classes were more likely to engage in social leisure activities.

In summary, research studies have shown women to be more constrained in their leisure time than men (Jackson, 2000). Research suggests that differences in men's and women's leisure time is related more to gender role than biological sex. Women have traditionally held more responsibility for household chores; dependent labor theory would suggest that women's time is more constrained by these responsibilities. Alternately, the theory of women's doubleday accounts for the obligations of women who also hold paid jobs. These women may continue to take primary responsibility for household chores in addition to work, and have little time left

for leisure. A Pew Research Center report revealed that half of women with children were working full time in 1997. In that report, women reported feeling pressure in finding enough time to take on multiple roles at home and work. Like minorities, women generally have lower incomes than men, which is another possible constraint to leisure. A U.S. Census study between 1997 and 1999 revealed that, on average, women earn less than men for every level of educational attainment. However, the difference between earnings for men and women is lower among younger workers than older workers (Day and Newburger, 2002), again pointing to the need to address the influence of social changes over time.

There are several difficulties in studying women's leisure time. As for ethnic and racial minorities, life context has much influence on how leisure is constrained for women. Being employed, married, or having children are all variables beyond gender that influence women's leisure time. Furthermore, there is some evidence that men and women may define leisure differently.

Age and Leisure Constraints

Another area of constraints research relates to life stage. Jackson (2000) suggests that constraints vary by age. A U.S. Fish and Wildlife Survey revealed that fishing participation in 1996 decreased among age cohorts older than 35-44 after increasing through the earlier life stages (FWS, 2000). Thrane (2000) found that for leisure participation, age was a curvilinear factor. That is, those around the age of 40 had the least leisure time, likely because of workload and children. Jackson and Scott (1999) also note that intervening constraints have generally been found to vary throughout life stage in a U-shaped pattern. Lack of time, for example, is a greater constraint for many in middle age than in younger or older years. Constraints related to social relationships, on the other hand, have an opposite effect. For example, people at middle-

age may have more partners to recreate with than those who are younger or older. Younger people are constrained by items like “lack of partners,” lack of opportunity, and cost. Middle adults face time commitment issues because of family and jobs. Older adults, on the other hand, face problems with skills and ability (Jackson, 2000).

Ortiz (1996) used the concept of the Family Life Cycle to explore how people’s leisure experiences change as they age. The family life cycle approach segments people’s lives into stages related to marriage, having children, and work. In this scheme, young adults are more likely to try a variety of activities. Single individuals engage in activities that involve social interaction. Adults who are beginning careers and marriage tend to be restricted by time and money, as they become involved in work demands and children. In older years, people face retirement and a decline in physical ability. At the same time, older individuals may have more time to pursue leisure interests.

Using the family life cycle literature, Ortiz tested eight hypothesis and found mixed support for previous studies. One contrary finding was that anglers with children had greater participation rates than those without children. This was not expected from previous literature, which suggested that children reduce free time and financial resources of parents. To explain his finding, Ortiz suggests that fishing may be considered a family activity. Also, the costs of fishing may not be high compared to other recreation alternatives. Ortiz also found that the presence or absence of children did not have an effect on anglers motivations to participate in fishing. However, the presence of a spouse and child did explain the reasons given for not fishing by those who fished less often than they had previously. Anglers with spouse and children perceived that having less time because of family commitments was more of a constraint than anglers without a spouse and children.

Anglers studied by Ortiz rated economic variables of expense, affordability, and income changes as reasons of low importance for participating less in fishing than they had in the past. This finding was true of anglers in all phases of the life cycle, suggesting that money may not be a primary constraint to recreational fishing. Anglers in all career phases rated lack of time because of work as an important constraint to fishing as often as they previously had, suggesting that time constraints may be a bigger constraint to fishing than money.

Leisure Constraints and Fishing

A recent study showed that the motivations to fish among all anglers appear to be changing. Between 1995 and 1999, the number of anglers interested in fishing for relaxation, family, and to be in nature increased. During the same period, fishing for sport, for trophy fish, and for food decreased (RM, 1999). There are some general patterns that have emerged to explain the constraints faced by anglers in general. Lack of time was listed as a barrier to participation by a majority of all anglers, with work being listed as the reason for the time constraint (RM, 1999). Lack of time and work commitments were also found to be the most frequently listed constraint among a group of Texas anglers (Ritter et al., 1992). For inactive anglers, lack of free time, lost interest, family obligations, work obligation, and no partners represented the top five constraints to fishing (RM, 1995; in RM, 1999). A 1995 study found that fishing satisfaction among all active anglers was most reduced by litter/pollution, interference from other visitors, and work obligations (RM, 1999).

The barriers to fishing listed by African American and Hispanic anglers are similar to anglers in general – namely, lack of time, commitments to work and family, and lack of partners. But there are some additional constraints that may be more unique to these groups. Some studies of recreational fishing among minorities unveiled constraints related to the

marginality hypothesis (i.e., minorities have fewer economic and social resources because of historic discrimination). For example, in one survey many minorities listed water pollution as a barrier to fishing (RBFF, 2002). Also, the RBFF study showed that just over one-half of minorities knew of a good location to go fishing or boating near their home. One-quarter of Hispanics did not know how far they would have to travel to fish in a “desirable” location, and one-fifth of Hispanics estimated that they believed they would have to travel over one hour to get to a desirable location (RBFF, 2002). These factors may reflect a discrepancy in living conditions between minority groups and Anglos. Hunt and Ditton (2002) assert that many minority groups live in urban areas. Further supporting the possible influence of urban residency on fishing is a Recreational Boating and Fishing Foundation (RBFF) study of African Americans and Hispanics, which found that African Americans living in urban areas and in the northeastern United States participated less in fishing than their minority counterparts. The presence of pollution in urban fishing areas was found to be a barrier to youth fishing by Dargitz (1988).

In addition to location, minority groups may have a different social structure than the white majority. Differences in social structure relate to the ethnicity hypothesis (i.e., minorities have different recreation preferences because of cultural preferences). Some minorities may focus more on promoting group values; goals of the group may be more important than individual goals. For fishing, Hunt and Ditton (2002) suggest that this cultural characteristic may translate into larger groups of minority family and friends fishing together.

In addition to a possible preference for more social activities, minorities may participate less in competitive fishing. This idea is reflected in an RBFF study; minorities had a positive perception of fishing, but did not mention skill development, being challenged, sport fishing, or catching trophy fish as goals. Rather, the focus of these groups was on relaxation, friends and

family, and being outdoors (RBFF, 2002). The study also found that minority groups tend to fish in medium to large groups, with an average size of five. Time with friends and family were seen as benefits, while lack of partners was seen as a large barrier to fishing more frequently (RBFF, 2002). The RM study also found that family was important in general to Hispanic anglers (1999).

Another issue related to social structure is the age at which individuals are introduced into an activity. In a study in Texas, it was found that Mexican Americans and African Americans started fishing at a later age than Anglos (Hunt and Ditton, 2002). Perhaps reflecting the later start, Mexican American and African American anglers had lower specialization levels than Anglos; they started later, had fewer years experience, and were less involved in tournaments (Hunt and Ditton, 2002).

There is evidence that many women are also not introduced into fishing until they are adults. This is reflected in a comparison of the Boy and Girl Scouts. While the Boy Scouts have a fishing badge, the Girl Scouts do not (RM, 1999). This example supports the idea that differences between men and women are determined by cultural definitions of gender. In a study of minorities, most respondents thought that fishing was a good activity for men, but less so for women (RBFF, 2002), suggesting that the perception of the role of women in the sport could be a factor in their participation. The same study revealed that African American and Hispanic women participated less in fishing than their male counterparts. A Fish and Wildlife survey revealed that rural women and women with less than a high school degree were more likely to fish (FWS, 2000), perhaps reflecting the importance of context in understanding recreational constraints.

Possible Survey Questions for Understanding Underrepresented Fishing Groups

Type of Leisure Being Constrained

This review of the leisure constraints literature reveals that it is important to consider that participation may be constrained in different ways for different reasons. One individual may be constrained from participating in an activity as much as he or she would otherwise prefer. In another case, one may face constraints that no longer allows him or her to participate in a former activity. Alternatively, one might be constrained from beginning a new activity. The following questions can be used to gather data on the type of participation constraint that the respondent is facing. This list of questions is not comprehensive, but is instead presented as an appropriate starting point.

1) Have you ever gone fishing?

YES
NO

2) Have you gone fishing in the past 12 months?

YES
NO

3) Have you gone fishing in the past 24 months?

YES
NO

4) In the past 12 months, approximately how many days did you go fishing?

____DAYS

5) Have you gone fishing at any point in your life?

YES If yes, when was the last year that you fished? ____YEAR
 NO

6) Would you prefer to fish more frequently than you did during the last 12 months?

YES
 NO

7) Below is a list of reasons why people might have fished fewer days during the past year than they fished each year over the past several years. Please indicate how important each reason was for causing you to fish less often. (1=not at all important, 5=extremely important)

a) It has become too expensive to fish	1	2	3	4	5
b) I have less time because of work commitments	1	2	3	4	5
c) I have less time because of family commitments.....	1	2	3	4	5
d) I can't afford to spend as much money now for fishing	1	2	3	4	5
e) I feel I need to spend more time with my children	1	2	3	4	5
f) I have less time because of my school commitments...	1	2	3	4	5
g) I don't have a regular fishing partner	1	2	3	4	5
h) I am more active now in other forms of recreation	1	2	3	4	5
i) Fishing facilities or areas are too crowded	1	2	3	4	5
j) I don't have enough time because of child care responsibilities	1	2	3	4	5
k) I am not satisfied with my catch	1	2	3	4	5
l) I am physically unable to fish as often as I would like.....	1	2	3	4	5
m) Fishing regulations are too restrictive.....	1	2	3	4	5
n) A change in my income level means I must fish less often	1	2	3	4	5

8) How much interest do you have in going fishing in the future? (please circle only one answer)

- 1 NO INTEREST AT ALL
- 2 LOW INTEREST
- 3 MODERATE INTEREST
- 4 HIGH INTEREST
- 5 VERY HIGH INTEREST

9) Please indicate how important each of the following items are to you as reasons to participate in outdoor recreation in general. (1=not at all important, 5=extremely important)

a) To be outdoors	1	2	3	4	5
b) To recreate with family.....	1	2	3	4	5
c) To experience new and different things.....	1	2	3	4	5
d) To relax	1	2	3	4	5
e) To be close to the water	1	2	3	4	5
f) To get away from the demands of other people	1	2	3	4	5
g) To be with friends	1	2	3	4	5
h) To get away from the regular routine	1	2	3	4	5
i) To experience adventure and excitement	1	2	3	4	5
j) To experience natural surroundings	1	2	3	4	5

10) Please indicate the extent to which you feel recreational fishing can allow you to achieve the following. (1=not at all, 5=completely)

a) To be outdoors	1	2	3	4	5
b) To recreate with family.....	1	2	3	4	5
c) To experience new and different things.....	1	2	3	4	5
d) To relax	1	2	3	4	5
e) To be close to the water	1	2	3	4	5
f) To get away from the demands of other people	1	2	3	4	5
g) To be with friends	1	2	3	4	5
h) To get away from the regular routine	1	2	3	4	5
i) To experience adventure and excitement	1	2	3	4	5
j) To experience natural surroundings	1	2	3	4	5

Type of Constraints

In addition to considering how leisure is being constrained, the hierarchical constraints model suggests that there are three types of constraints to consider. These are: intrapersonal, interpersonal, and structural. Equipment costs could act as a structural constraint for someone who desires to fish, but does not have adequate funds. In another case, someone might face interpersonal constraints to fishing by not having others around who like to fish. Another

individual may face intrapersonal constraints, such as perception of ability, that would prevent him or her from developing a desire to fish. Questions about the constraints faced by underrepresented fishing groups could be applied to this model. However, some authors suggest that this model may not work well for understanding leisure constraints faced by ethnic minorities, and that race should be considered as a separate variable.

1) To what extent do the following prevent you from fishing as often as you would like? (1=not at all, 5=completely)

Structural:

a) Family commitments	1	2	3	4	5
b) Work commitments.....	1	2	3	4	5
c) Cost of equipment	1	2	3	4	5
d) Cost of licenses and fees	1	2	3	4	5
e) Lack of access to a quality fishing resource.....	1	2	3	4	5

Intrapersonal:

a) Lack of fishing skills	1	2	3	4	5
b) Belief that it isn't appropriate for you to fish	1	2	3	4	5
c) Experience of stress in your life	1	2	3	4	5
d) Experience of depression in your life	1	2	3	4	5
e) Not feeling welcome among others in fishing community	1	2	3	4	5

Interpersonal:

a) My spouse doesn't like to fish	1	2	3	4	5
b) Lack of fishing partners.....	1	2	3	4	5

Context

Understanding leisure constraints to underrepresented groups in recreational fishing requires gathering background information not only on age, ethnicity, and gender, but also variables of life context. As revealed in the literature, these variables may include items such as, income, employment status, and familial status. Basic information on these variables should be gathered to explore the influence of context on participation.

1) What is your approximate annual household income?

- 1 Under \$15,000
- 2 \$15,001 - \$30,000
- 3 \$30,001 - \$45,000
- 4 \$45,001 - \$60,000
- 5 \$60,001 - \$85,000
- 6 \$85,001 - \$135,000
- 7 Greater than \$135,000

2) Would you classify yourself as Spanish/Hispanic/Latino?

- 1 YES
- 2 NO

3) Which racial category best describes you?

- 1 WHITE
- 2 AFRICAN AMERICAN/BLACK
- 3 AMERICAN INDIAN
- 4 ASIAN/PACIFIC ISLANDER

4) What is your gender?

- 1 MALE
- 2 FEMALE

5) What is your current familial status?

- 1 MARRIED
- 2 DIVORCED
- 3 SEPARATED
- 4 SINGLE
- 5 WIDOWED

6) Do you have children?

- 1 YES If yes, proceed to next question.
- 2 NO If no, skip next question.

7) **How many children do you have?**

_____ CHILDREN

8) **What ages are your children? (Fill in an age for each child.)**

_____YEARS _____YEARS _____YEARS _____YEARS _____YEARS _____YEARS

9) **Are you employed for paid work?**

- 1 YES If yes, proceed to next question.
- 2 NO If no, skip next question.

10) **If you are employed for paid work, are you employed full-time or part-time?**

- 1 FULL-TIME (40 hours per week)
- 2 PART-TIME (20-30 hours per week)
- 3 PART-TIME (15-19 hours per week)
- 4 PART-TIME (less than 15 hours per week)

11) **Are you a student?**

- 1 YES If yes, proceed to next question.
- 2 NO If no, skip next question.

12) **If you are a student, are you enrolled full-time or part-time?**

- 1 FULL-TIME
- 2 PART-TIME

13) **What is your age?**

_____ YEARS

Race/Ethnicity

In trying to isolate race as a variable that influences how leisure constraints to fishing are experienced, researchers have noted that people have many identities beyond race that

influence their life experiences. Context items, such as age, income, job status, and place of residence, should be considered in addition to race to help understand constraints to recreational fishing. At the same time, a few generalizations may help to explain how leisure constraints may be experienced differently by ethnic minorities. Minority groups in the U.S. tend to have lower incomes, live in more urban locations, and have lower job status than the white majority. These factors could relate to constraints of activity cost and access to fishing resources. Additionally, there is evidence to suggest that minority groups may have a social structure that is more collectivistic than whites. This could relate to a preference to recreate in larger, family groups, and to participate in activities that involve less competition. Recreational fishing—especially in the form of tournaments—may provide an atmosphere that is less “group-friendly” than other activities.

In addition to considering how leisure constraints are experienced by race, questions to underrepresented fishing groups can be placed in the context of the theories of marginality, ethnicity, and discrimination. The impact of income and place of residence could relate to the marginality theory. This theory suggests ethnic minorities have a reduced access to economic and social resources because of historical discrimination, a condition that serves to reduce recreation opportunities. Alternatively, the ethnicity theory suggests that cultural factors, rather than economic and social position, influence recreation preference. A preference for group activities, for example, may relate to a reduced preference for participating in fishing competitions. A lack of preference for an activity could also be passed down by generation. As a consequence, children may not be initiated into the activity. Discrimination should also be considered as a factor that could reduce participation in recreational fishing among minorities. Questions relating to the presence or absence of languages other than English at fishing locations, how well-received minorities feel by recreation managers and staff, and minority

ratings of activity “appeal” and “comfort” may help to elucidate minority perceptions of discrimination in recreational fishing. Finally, an alternative way of explaining recreation behavior of minority groups is to use a “resistance” framework. In some cases, ethnic minorities may not wish to participate in activities that are perceived of as being too “white.”

1) Which best describes your place of residence?

- 1 RURAL
- 2 SUBURBAN
- 3 URBAN

2) Is there a good place to go fishing near you?

- 1 YES If yes, proceed to next question.
- 2 NO If no, skip next question.

3) If there is a good fishing location near you, how close is this place?

- 1 WITHIN WALKING DISTANCE
- 2 10 MINUTE DRIVE
- 3 20 MINUTE DRIVE
- 4 30 MINUTE DRIVE
- 5 1 HOUR DRIVE
- 6 2 HOUR OR MORE DRIVE

4) Are there places to fish closer to you that you would not consider “good places to fish”?

- 1 YES If yes, proceed to next question.
- 2 NO If no, skip next question.

5) If there is a nearby fishing location that you would consider to *not* be a “good place to fish,” how important are the following reasons why this location is not desirable? (1=not at all important, 5=extremely important)

- | | | | | | |
|-------------------------------|---|---|---|---|---|
| a) Water pollution..... | 1 | 2 | 3 | 4 | 5 |
| b) Concern about crime..... | 1 | 2 | 3 | 4 | 5 |
| c) Entry fee is too high..... | 1 | 2 | 3 | 4 | 5 |

6) Please indicate how appealing each of the following fishing activities are to you: (1=not at all appealing, 5=extremely appealing)

a) Fishing with extended family	1	2	3	4	5
b) Fishing with partner	1	2	3	4	5
c) Fishing alone	1	2	3	4	5
d) Participating in tournaments and competitions	1	2	3	4	5
e) Fishing for food	1	2	3	4	5

7) Please indicate how comfortable you would be in the following types of fishing. (1=not at all comfortable, 5=extremely comfortable)

a) Fishing with extended family	1	2	3	4	5
b) Fishing with friend	1	2	3	4	5
c) Fishing alone	1	2	3	4	5
d) Participating in tournaments and competitions	1	2	3	4	5
e) Fishing for food	1	2	3	4	5

8) Did you ever go fishing with parents or friends as a child?

- 1 YES If yes, proceed to next question.
- 2 NO

9) Please rate how comfortable you feel among: (1=not at all comfortable, 5=extremely comfortable)

a) Other anglers.....	1	2	3	4	5
b) Fisheries managers.....	1	2	3	4	5
c) Fisheries staff	1	2	3	4	5
d) Fisheries equipment salespersons	1	2	3	4	5

Women

As in measuring race, examining differences by sex requires an understanding that gender is just one variable among many that may influence how leisure constraints are experienced. Differences in leisure preferences between men and women are suggested to be related to definitions of gender, rather than biological sex. Some gender roles that may cause women’s leisure to be more constrained than men’s include: feelings of responsibility for

childcare and household chores, an ethic of care. Many women hold part or full-time jobs, while continuing to take a primary role in tending to household needs. Like minorities, women earn lower incomes, although this is changing with younger generations. Women may face constraints of time, energy, and cultural perceptions of gender and fishing. Some women may face issues of body image or fear of violence.

1) Which category best describes you?

- 1 ACT AS PRIMARY CAREGIVER FOR CHILDREN
- 2 EQUALLY SHARE CHILDCARE RESPONSIBILTY WITH SPOUSE/PARTNER
- 3 SPOUSE/PARTNER TAKES PRIMARY RESPONSIBILITY FOR CHILDCARE
- 4 HAVE NO CHILDREN UNDER AGE 18

2) Did you ever go fishing with parents or friends as a child?

YES If yes, how old were you on your first fishing trip? _____ YEARS
 NO

3) Please indicate how important the following items are as reasons that you don't fish: (1=not at all important, 5=extremely important)

a) Lack of time because of child responsibilities	1	2	3	4	5
b) Lack of time because of household responsibilities	1	2	3	4	5
c) Lack of time because of work/school	1	2	3	4	5
d) Lack of interest in fishing	1	2	3	4	5
e) Lack of knowledge about fishing.....	1	2	3	4	5
f) Lack of energy to invest in fishing.....	1	2	3	4	5
g) Lack of partners to go fishing with.....	1	2	3	4	5
h) Lack of a nearby place to go fishing	1	2	3	4	5
i) Lack of transportation to fishing location.....	1	2	3	4	5
j) Lack of fishing skill and ability	1	2	3	4	5
k) Would feel uncomfortable around others who fish	1	2	3	4	5

Age

A person may experience leisure constraints differently as he/she ages. Younger people are more likely to be constrained by items like lack of partners, lack of opportunity, and cost. Middle adults face time commitment issues from family and paid work. Older adults face more constraints because of reduced skill and ability and health issues. At the same time, retired adults may have more time available to pursue leisure activities.

1) Please indicate how important the following reasons are in explaining why you do not fish: (1=not at all important, 5=extremely important)

a) Lack of time due to work	1	2	3	4	5
b) Lack of time due to household responsibilities	1	2	3	4	5
c) Lack of interest in fishing.....	1	2	3	4	5
d) Lack of knowledge about fishing.....	1	2	3	4	5
e) Lack of partners to go fishing with.....	1	2	3	4	5
f) Lack of a nearby place to go fishing	1	2	3	4	5
g) Lack of transportation to go fishing	1	2	3	4	5
h) Lack of skill and ability	1	2	3	4	5
i) Would feel uncomfortable around others who fish	1	2	3	4	5
j) Lack of opportunities to go fishing.....	1	2	3	4	5
k) Costs of equipment	1	2	3	4	5
l) Entry fees too high	1	2	3	4	5

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