

CONSTRAINTS TO RECREATIONAL FISHING: CONCEPTS AND QUESTIONS TO UNDERSTAND UNDERREPRESENTED ANGLING GROUPS

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Abstract

Fishing opportunities are often catered to the predominant angler group: male Anglos. However, in coming years, the U.S. population is predicted to become more ethnically diverse. These changes are likely to have an impact on the recreational angler population. If new angler groups are not catered to by fisheries managers, there may be fewer anglers in the future, and consequently a reduction in public funding and support for fisheries management. However, little is known about the motives and preferences of non-Anglo anglers. Additionally, there is more to be learned about what constraints these underrepresented groups face. Ethnic minority groups may be differently affected by constraints due to income, place of residence, and social structure. Women may face constraints related to family commitments and perceptions of traditional gender roles. Combining knowledge about minority groups and women with leisure constraints research may help to inform future research efforts on underrepresented angling groups.

1.0 Introduction

Until recently, research into the human dimensions of fisheries management has focused primarily on white males. This research is reflective of the homogenous demographic composition of anglers in the United States. In 2001, over 93% of recreational anglers were white. In the same year, seventy-four percent of anglers were men (DOI 2002, pages 15 and 17). Lower percentages of women, African Americans, and Hispanics participate in recreational fishing than their white, male counterparts (FWS 2000).

Because white males have been the predominant participant group, fishing opportunities in the U.S. have

been largely catered to the needs and preferences of this demographic group. However, ethnic minority groups could account for a substantial increase in recreational fishing participants in coming years (Murdock et al. 1996; Hunt and Ditton 2002). The demographic composition of the United States is predicted to change considerably in coming decades (Table 1). 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 possibly recreational fishing participant growth—in coming years (Murdock et al. 1996).

However, if new angler groups, including minority ethnic groups, older anglers, and women, are not catered to by fisheries managers, there may be fewer anglers in the future, and consequently a reduction in public funding and support for fisheries management. While it has been shown that there may be an interest in greater fishing participation among minority groups, we know little about their preferences and behaviors (Hunt and Ditton, 2002). Understanding the needs of underrepresented groups is important to encouraging their participation in the activity.

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.

2.0 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 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

Table 1.—U.S. Population Composition and Projected Change

	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

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, and personal skills and abilities (Jackson 2000).

While reported barriers provided a very applied approach to understanding leisure constraints, later research found that these lists of barriers did not adequately explain 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. Kay and Jackson termed this as “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.

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. Intrapersonal constraints are related to individual characteristics

that influence leisure preference. Some examples of intrapersonal constraints include: stress, anxiety, and perception of ability. 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 or she is with a partner (Crawford and Godbey 1987). Crawford et al. (1991) take the 1987 model a step further, saying that the three constraint types are hierarchical in nature. That is, a person will first encounter intrapersonal constraints, then interpersonal constraints, and finally structural constraints.

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, an individual could face constraints to starting a new activity. Alternatively, there could be constraints that cause individuals to cease participation in a former activity. In this case, leisure constraints are not “internally homogenous” (Jackson and Rucks 1993). In other words, constraints can not be equally applied to different aspects of leisure participation.

3.0 Leisure Constraints and Underrepresented Groups

Understanding lack of participation in recreational fisheries by underrepresented groups involves gaining an understanding of the constraints that may be especially present among these groups. In this section, three issues will be considered that could involve greater constraints

among ethnic minority groups: income level, place of residence, and social structure. Also, some constraints that may be experienced by women will be considered.

Money has frequently been identified as a constraint to leisure (Jackson 2000). In Crawford et al.'s (1991) model, money could function as a structural constraint. That is, once a person has formed a preference for an activity, the costs of that activity could constrain his or her participation. The burden of the cost constraint could vary as a person becomes more specialized in an activity. As one becomes more specialized, he or she is more likely to invest more money into equipment and materials related to the activity (Ditton et al. 1992). In this case, money could be a constraint to participating "more often" in an activity.

With the understanding of how money could act as a general leisure constraint, one could consider how the money constraint could especially impact underrepresented fishing groups. In general, it is known that minority groups in the U.S. have lower income levels than Anglos. For example, a 2002 study found that only 29% of whites reported earning an annual household income of less than \$30,000, compared to 50% of Hispanics and 44% of African Americans. Forty-two percent of whites reported earning \$50,000 or more, while only 17% of Hispanics and 22% of African Americans fell into this category (Brodie et al. 2002, page 12). Furthermore, there does appear to be a connection between income level and fishing participation. In 2001, individuals with an annual income of \$35,000 had the highest fishing participant rates. Fishing participation rates steadily declined with income (DOI 2002, page 16).

A second constraint to recreational fishing that could be of special significance to minority groups is place of residence. Location could act as a structural or intrapersonal constraint. For example, people who desire to fish may not have adequate access to fishing resources or to quality resources. On the other hand, if opportunities to go fishing are not readily available, the preference to fish may not even be formed. Today, many ethnic minority groups live in the central cores of large cities, as a consequence of government policies that encouraged urban "white flight" (Bullard et al. 2000). Conversely, minorities comprise just 17% of the population in rural areas (USDA 2004). Minorities in cities may not be close to good fishing locations, may not

know where to go fishing, and may face issues of water pollution (RBFF 2002). These constraints may, in part, help to explain the connection between urban and rural residence and fishing participation. The highest fishing participation rates in 2001 (24%) occurred among those living in rural areas. The lowest fishing participation (12%) occurred among those living in large metropolitan statistical areas (DOI 2002, page 16).

A third area to consider when examining minority participation in fishing is social structure. Ethnic minority groups may have a social structure that is different from the majority white population. Social structure may relate to intrapersonal and interpersonal constraints. That is, characteristics of culture may relate to the formation of preference for an activity. For example, extended family and family ties may be more central to the lives of African Americans and Hispanics than whites. This is reflected in what Hunt and Ditton (2002) term a more "collectivistic culture" of some minority groups compared to the more "individualistic" culture of Anglos. Some of these differences are apparent in a 2002 Recreational Boating and Fishing Foundation study, in which African American and Hispanic anglers reported that relaxation, being outdoors, and spending time with friends and family were more important aspects of fishing than competitions or skill development (RBFF 2002).

Lastly, there is evidence to suggest that women may be affected by leisure constraints differently than men. A Pew research study revealed that one-half of women with children were working full time (Pew 1997). For these women, the constraint of time may be especially significant. Some evidence suggests that women may be more affected by constraints of social isolation and skill than men (Jackson and Henderson 1995). Isolation and skill could be considered intrapersonal and interpersonal constraints, which relate to the formation of fishing preference. Another issue to consider is how perceptions of traditional gender roles relate to women and fishing. Thrane (2000) suggests that leisure constraints faced by women relate more to cultural gender roles than biological sex.

4.0 Generating Questions

Using leisure constraints research as a framework, future research efforts may lead to a better understanding of the lack of participation among underrepresented groups in

recreational fishing. Leisure constraints research offers a model for understanding the types of constraints that reduce leisure participation: these may be defined as intrapersonal, interpersonal, and structural. Furthermore, research revealing that leisure constraints could be experienced differently depending upon the type of participation points to the need to examine whether individuals from underrepresented groups have stopped fishing, never started fishing, or are fishing less than they would like.

Moving beyond the different types of constraints and leisure behaviors, some characteristics of ethnic minority groups and women can be examined to consider how these groups may be differently affected by constraints. Some minority groups may have lower disposable incomes and live in more urban residences. Ethnic minorities may also have a different social structure than the white majority, which involves less of a focus on competition and greater importance of extended family. Furthermore, some ethnic minority groups may use languages that are not catered to in fisheries management. For women, commitments to children and family and perceptions of traditional gender roles may be additional factors to consider as constraints to recreational fishing.

Leisure constraints research could be combined with information about ethnic minority groups and women in future research endeavors. For example, researchers may consider asking questions relating to both structural and antecedent constraints. Structural variables that may be of special significance to ethnic minority groups could include: equipment costs, availability of activities for families, the proximity of good fishing locations to underrepresented groups, and the availability managers who can communicate in different languages. Antecedent variables that could be considered include: perceptions of cost, who “should” participate, activity difficulty, and discrimination. Exploring these questions may bring human dimensions researchers a step closer to understanding the needs and preferences of underrepresented groups. This understanding, in turn, may help to insure the future healthy participation of a diverse group of U.S. citizens in recreational fishing.

5.0 Citations

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