

Minority Group Participation in Recreational Fishing: The Role of Demographics and Constraints

Kelly L. Finn

Department of Forestry and Wildlife Management
University of Massachusetts, Amherst, MA 01003-4210

David K. Loomis

Department of Forestry and Wildlife Management
University of Massachusetts, Amherst, MA 01003-4210

Abstract: Minority populations are increasing in numbers and will influence participation and expenditures in fishing activities. This, in turn, will affect fisheries management. Between 1995 and 2025, 78% of the net change in the U.S. population will be attributed to minority group members. This increase in minority populations will be related to a potential increase in the number and proportion of minorities involved in fishing activities. However, it has been shown that minority groups presently comprise a much lower proportion of those who participate in fishing activities when compared to Anglos. This low participation rate implies that minority groups are subject to a variety of constraints or factors that inhibit their participation in fishing activities. Unfortunately, there is little information to explain which constraints are perceived as most serious by minority populations. This paper attempts to identify and discuss possible explanations for low participation rates or non-participation among minority populations, and to discuss the importance of recognizing population trends so agencies can successfully recruit new participants and respond to different types of desired angling experiences. This, in turn, should help fisheries agencies become more efficient in delivering opportunities and services to what will be a growing number of minority constituents.

Introduction

Population dynamics within the United States will be one of the most important factors influencing fisheries management within the next few decades (Robey 1985; Fosler, Alonso, Meyer and Klein 1990; Murdock 1995). Projections predict that the U.S. population will increase by 72 million between 1995 and 2025, with immigrants and their descendants playing the major role in this increase (U.S. Census Bureau 1996). This growth in minority populations is largely due to the high projected birth rate of immigrant groups, many of which came to the U.S. during the 1980's when immigration levels were high and are already in residence. It is this change in population structure that will impact the social and political contexts of fishery management. The purpose of this paper is to suggest to resource managers that in order to secure future angler support, they must understand the implications associated with demographic change, identify and remove constraints, and develop strategies to recruit groups that presently have low participation rates.

Management agencies need to address demographic changes, especially within minority populations, if they are to increase participation rates, recruit additional participants, and succeed in providing services that will meet the demand for a more diverse constituent base. In order to accomplish this, managers must develop programs and services that overcome constraints that have prevented certain groups from participating. This is of primary importance since studies based on current trends suggest that more people are less likely to participate, and participate less frequently, as the population becomes more ethnically varied (Loomis and Ditton 1988; Murdock, Backman, Colberg, Hoque and Hamm 1990; Murdock, Loomis, Ditton and Hoque 1996).

The types and effects of constraints can vary among subpopulations defined by social and economic factors, with those most likely to be affected including minority racial and ethnic groups (Ritter, Ditton and Riechers 1992). It has been suggested that personal and situational characteristics can create variability in perceptions of constraints (Searle and Jackson, 1985). By identifying minority subgroups that distinguish women and ethnic/racial minorities, agencies can focus on specific strategies that extend services to include groups, that have traditionally been underrepresented.

Demographic Background

The Anglo subgroup (whites of non-Hispanic origin) is the largest of the racial/ethnic groups (Table 1, Figure 1). However, Anglos are projected to be the slowest-growing group between 1995 and 2025 (U.S. Census Bureau 1996) (Figure 2). This group is projected to account for approximately one-fifth of the total population increase in the United States. Growth in the angling population will occur in all regions, except the Northeast (Maine, Vermont, New Hampshire, Massachusetts, Pennsylvania, Connecticut, Rhode Island, New Jersey and New York) where this group will decline in size. Census Bureau information predicts that 67% of the 16 million Anglos added to the population will be located in the South (Delaware, Maryland, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida, Kentucky, Tennessee, Alabama, Mississippi, Arkansas, Louisiana, Oklahoma, and Texas).

The Black subgroup (Blacks of non-Hispanic origin) is also projected to show slow growth in all regions, except in the South where 64% of the 12 million Blacks added to the population will occur (U.S. Census Bureau 1996). It currently ranks as the second most populous racial/ethnic group in all regions, except in the West (Montana, Idaho, Wyoming, Colorado, New Mexico, Arizona, Utah, Nevada, Washington, Oregon, and California), where it ranks fourth. However, it is projected that by the year 2025, the Hispanic population will surpass the Black population numerically throughout the Nation (Table 1). Projections show a rapid increase of 32 million people in the Hispanic population between 1995 to 2025, accounting for 44% of the total growth of the U.S. population during that time period (U.S. Census Bureau 1996) (Table 1). This is the second fastest-growing population in every region.

The Asian and Pacific Islander population (not of Hispanic origin) is the fastest-growing subgroup in every region and will account for the largest percent increase in the total population between 1995 and 2025 (Table 1, Figure 1). This subgroup is currently the fourth-largest in all regions except in the West where they are ranked third. Fifty-six percent (7 million people) of the total increase in the Asian and Pacific Island population is projected to occur in the West, while the Northeast will see an increase of 2 million (U.S. Census Bureau 1996).

The American Indian population (including Eskimos and Aleuts) is the least populous group and is projected to be the third slowest-growing population in all regions except in the south, where it will be ranked second (U.S. Census Bureau 1996). Almost half of the 812,000 American Indians added to the population between 1995 and 2025 will be located in the West.

Role of Immigration

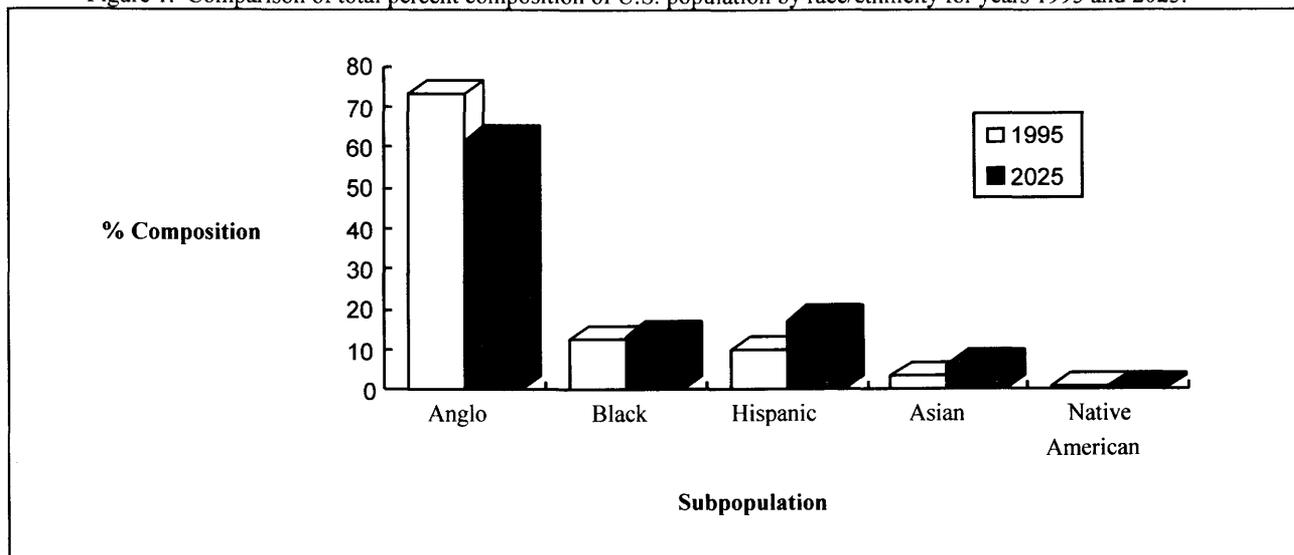
The population of the United States has grown significantly compared to other developed nations, with the exception of the Depression and World War II eras when growth rates decreased. The years between 1946 and 1964 were characterized by rapid growth, and are commonly known as the "baby boom" era. The cohorts produced in this period currently comprise one-third of the total population

(Murdock et al. 1996). However, the 1960's began a period of moderate to slow growth which is projected to continue into the next century. Current trends suggest that the average annual growth rate will decrease by one-third between 1995 and 2025 (Day 1996) (Table 2). However, the proportion of the total U.S. population composed of minority group members will increase to 38.2% by 2025, compared to 24.4% in 1990. Much of the increase in minority group populations can be attributed to Hispanic and Asian immigrants (many arriving in the 1980's) and their descendants. The percent composition of Anglos in the population by 2025 will have decreased by 11% from 1995, whereas the minority groups will see an increase in total percent composition in the population (Table 1, Figure 1). In addition, 78% of the net change in the population between 1995 and 2025 is projected to be accounted for by members of minority groups, with Hispanics and Asians showing the largest percent increase by 2025 (Figure 2). Immigration will continue to have a substantial effect on demographic changes in the United States over the next 30 years. The majority of immigrants will continue to come from Latin America and Asia (Murdock 1995), bringing with them their own traditional ideologies and customs. They will exert different demands on products and services than will the traditional recreationist.

Table 1. Total population and percent changes between 1995 and 2025 according to race/ethnicity. Population numbers in millions.

Race/Ethnicity	Population in 1995	Percent Composition in 1995	Population in 2025	Percent Composition in 2025	Numerical Increase 1995-2025	Percent Increase 1995-2025
Anglo	193.6	73.1%	209.1	61.8%	15.6	8.1%
Black	31.6	12.5	43.5	13.4	11.9	37.7
Hispanic	26.9	10.1	58.9	17.4	32	119
Asian/Pacific Island	8.8	3.5	20.7	6.5	11.9	135.2
Native American	1.9	0.8	2.7	0.9	0.8	42.1
Total	262.8	100	334.9	100	72.2	27.5

Figure 1. Comparison of total percent composition of U.S. population by race/ethnicity for years 1995 and 2025.



Angler Demographics

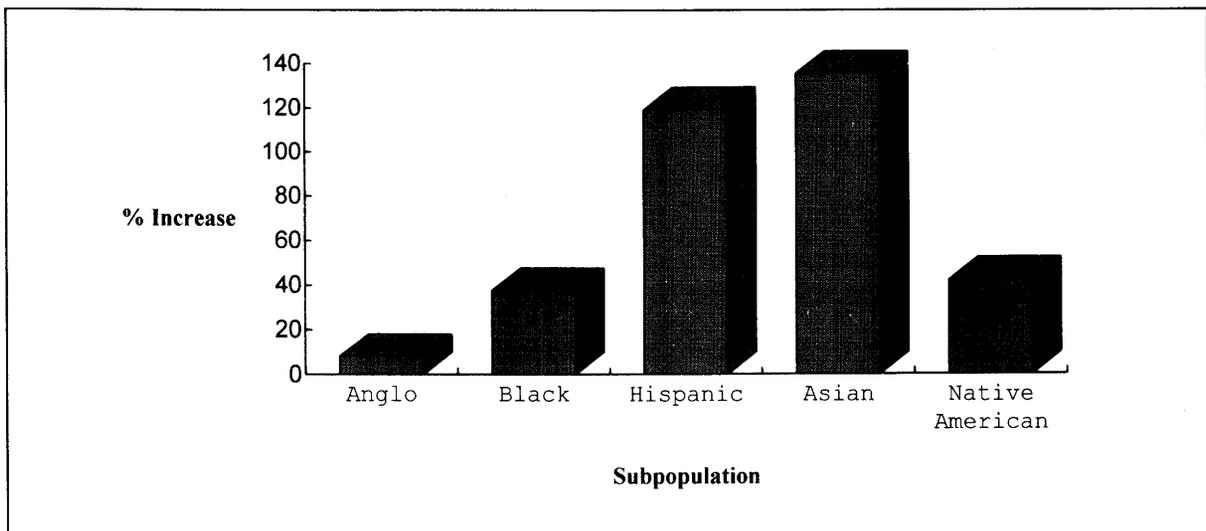
It is estimated that 88% of all adult anglers nationwide are Anglos (Harrington Market Research 1992). But noted earlier, Anglos will represent a decreasing percentage of the general population by the year 2025, and therefore are likely to make up a smaller proportion of the angling public. Blacks over the age of 16 accounted for only 5% of the total fishing population in 1993 (U.S. Department of the Interior, Fish and Wildlife Service 1993), and Hispanics, the second fastest-growing population, make up only 2% of all anglers (Harrington Market Research, 1992). The fastest-growing group, the Asian and Pacific Islander population, is reported as comprising only 0.5% of the total U.S. angling population (Harrington Market Research 1992). Only 10% of all women (inclusive of all racial and ethnic groups) participate in angling activities. Little information exists on the level of recreational angling participation by the Native American subgroup. Many Native American and Alaskan people have continued to fish as a part of their cultural heritage, and many treaties (signed by the U.S. Government in the mid-1800s) have recently been upheld in Federal courts which recognize their traditional right to harvest fish. In addition, these rights have been upheld despite harvesting regulations placed on commercial industries, and the rest of the angling public. While fishery management

agencies may not focus on the Native American populations, their interests are of no less importance. In fact, states in the west region might especially take note on their demographic characteristics when making recreational fishing or water allocation policies that could possibly conflict with Native American fishing rights. Immigration will continue to be an important factor on the future growth of angling participants. Murdock et al. (1996) projects that most of the net increase in total numbers of anglers will be due to minority populations. Black, Hispanic and Asian immigration further increases the net number of participants. Furthermore, if it were not for the projected immigration rates of Anglos, the total number of Anglo participants would actually decline (Murdock et al. 1996).

Table 2. Average annual percent change for years between 1995 and 2030.

Years	Projected Growth Rates
1990-1995	1.05
1995-2000	0.88
2000-2005	0.81
2005-2010	0.80
2010-2020	0.81
2020-2030	0.72

Figure 2. Percent increase in sub group populations from 1995 to 2025



Review

A constraint can be viewed as a restriction towards participation in a certain activity, and could inhibit an individual's desire to participate in leisure activities (Jackson 1988), including angling. Scott (1991) suggests that leisure constraints are forces within people's lives that must be successfully negotiated if they are to be involved in leisure activities. Nonparticipation is just one possible outcome as a result of constraints, but people may, instead, modify their behavior to maintain some pattern of sustained involvement (Scott 1991). It may be said that participation is dependent not on the absence of constraints, but on negotiation through them. Such negotiation may modify rather than foreclose participation (Jackson, Crawford and

Godbey 1993). This negotiation process is dependent on the relative strength of, and interactions between, constraints on participating in an activity and the motivations for such participation (Jackson et al. 1993). Identifying and understanding the extent to which constraints prevent participation in an activity will help managers distribute programs and services to produce opportunities for those interested in participating in that activity. While there is research into the constraints that prevent angling participation, there is little research into which constraints are most often perceived by or affect minority groups. Constraints that have a greater effect on minority group participation may include insufficient sources of information (no knowledge of how to get

involved), social-economic (low income) considerations which may also lead to a lack of time, inadequate facilities or lack of access, and social isolation.

Affects on Minority Groups

Poor availability or use of information is often an important constraint to participation in recreational constraints. Insufficient knowledge of information sources can prevent an individual from participating in an activity, even though they might otherwise want to. Since fishing is more popular among rural residents for all racial/ethnic groups, including Anglos (Waddington 1995; Duda 1993; Radonski 1983), anglers tend to be over-represented in rural areas and under-represented in urban areas as a percent of the population (U.S. Department of the Interior Fish and Wildlife Service 1980). This under-representation may reduce opportunities for urban dwellers from obtaining information about fishing, such as learning how, where, and when to fish. It is possible for information on fishing activities to be more readily exchanged between family and community members in rural areas than in urban areas, since rural members are more likely to fish (and fish more often) than those who reside in the cities. In rural communities it may be possible that this information is passed along through verbal communication, whereas in urban communities, anglers may be more likely to gain information through fishing organizations.

Socialization into fishing activities, often by a family or close community member, can be an important element in the recruitment of angling participants, especially for children (Dargitz 1988). Children who have anglers in their households are more likely to engage in fishing activities than are children who do not have anglers in their households, with females being less likely to have the opportunity to be introduced to angling than males (Dargitz 1988).

Dargitz (1988) states also that residence plays a minor role in socialization, and that ethnicity is a much larger factor towards the introduction of recreational fishing to children. However, since demographic information reveals that ethnic subpopulations are greater in urban areas, they would, therefore, be less likely to be socialized into angling activities than those who reside in rural areas. These groups may wish to participate in fishing activities, but lack the information on how to get involved. Management agencies putting more effort into distributing information in urban areas, specifically targeting minority groups, will likely see an increase in angling-related interests from these groups. With most immigrants moving to urban areas, this will result in a large increase in potential urban anglers.

Minorities may find that they lack general access to fishing areas, especially in urban centers. Fishing areas may be far from residences and there may be few opportunities to participate near home. Participation by minority groups and single-parents may be limited because they may lack certain socio-economic means to access these areas. It will be increasingly important for management agencies to understand who is not using their facilities in order to improve services in these areas. Developing recreational fishing opportunities adjacent to urban areas, such as "put

and take" systems (i.e. fishing in swimming pools and public water ways), along with distributing information on their locations may work to recruit new anglers and get current anglers to fish more often. Public agencies can also provide public shore and pier access for anglers who lack boat access.

Socioeconomic groups differed widely in their per capita fishing expenditures in 1991 (U.S. Fish and Wildlife Service 1993). Anglos had greater per capita fishing expenditures than any other subgroup. If this trend continues, total expenditures will decline since the number of Anglo participants are projected to decrease. Also, socioeconomic factors can quite often dictate the amount of disposable income, minority anglers will have less time and money to devote to angling activities. The use of a sliding-scale fee structure may be an option for managers to provide access services for those with lower incomes.

It may be possible that some minorities and women feel threatened or uncomfortable participating in an activity dominated by white males, even though they may be otherwise interested. This social isolation may be difficult to imagine for some, but it can often be an uncomfortable situation for a woman, or a member of a racial/ethnic minority group to walk into a room (perhaps for a class offering techniques in angling) that is comprised of white men. Perhaps providing an atmosphere where people of different ethnic backgrounds are encouraged to participate, such as through advertisements portraying a family or group of people of Asian or Hispanic descent, for example, enjoying the angling experience. Agencies involved in the recruitment of urban dwellers, women, and ethnic/racial subgroups may well benefit by focusing on outreach programs to overcome their historically low participation rates.

Discussion

Managers must realize that they can not focus solely on the interests of the traditional angling clientele. Instead, they will have to overcome constraints that inhibit a group's desire to participate in order to continue to satisfy its constituents and financial support base. According to Boothby et al. (1981), it is a variety of constraints, not just one, that often influences reasons for non-participation in a recreational activity. Many surveys conducted by fishery management agencies mask much of the angling diversity through the use of means and measures of central tendency when publishing results (Ditton 1996). Ditton suggests that such results can often be misleading because they do not promote an understanding of female or black anglers. Furthermore, many surveys distinguish only between whites, females and blacks, and then lump all other racial/ethnic groups into the "other" category. This does little to encourage the understanding of the constraints, experiences and preferences of Hispanics and Asians, the two fastest-growing populations.

Agencies should consider the growing political influence among minority groups as a result of their increasing numbers, and that they may be less supportive of existing or proposed management rules and regulations than is the existing population of anglers (Murdock et al. 1996).

Acknowledging the ethnicity-specific demographic changes that are projected to occur in the United States over the next 30 years will facilitate an understanding of the implications these changes will have on recreational fishing and its management agencies. As indicated, the traditional angler constituent base, consisting of mostly white males, is a decreasing percentage of the total U.S. population. This decrease will coincide with a decrease in financial support for fisheries conservation and management through the loss of state license revenues and Federal Aid moneys that traditionally support these services. Furthermore, a decrease in participants means fewer expenditures that would otherwise benefit local economies. Fisheries managers will need to develop programs and services that target other members of the population that have had historically low angling participation rates. By considering the present levels of minority group participation and expenditures, agencies can extrapolate information as to why these subpopulations feel constrained to participate in recreational fishing. Because present research into the leisure constraints of minorities is scarce, additional studies need to be performed to discover why minorities have historically remained non-participants in fishing activities. Classification of constraints by race and gender would greatly enhance the quality of future research and increase the understanding in the diversity of perceived physical and behavioral constraints. Once constraints are identified, managers can focus on the development of outreach programs in order to recruit those who wish to participate. Therefore, by understanding the importance of demographic changes and the increasing diversity among possible recruits, management agencies will be able to provide better services to a larger, more diverse constituent base.

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