

Understanding Activities that Compete with Recreational Fishing

Conducted by:

**Responsive Management
and
Southwick Associates**

On behalf of the

The American Sportfishing Association



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1. Introduction

Recreational fishing is one of the most popular outdoor activities in America. Thirty million adults—13% of the population—go fishing every year.¹ That is a big slice of the population, but it actually understates how popular fishing really is, because most anglers do not fish every year. However, a 2007 examination of state fishing license sales conducted on behalf of the American Sportfishing Association and the Association of Fish and Wildlife Agencies² found that less than 15% of Americans who had fished in the previous five years had fished in all five of those years. The angler who fishes every year is rare. The results of that study begged the question: why don't anglers fish every year, and which activities win anglers' attention in the years when they do not fish? This study focused on answering those questions.

Sustaining America's fishing tradition is important for a lot of reasons. As the results show, anglers' immediate benefits are not only a fresh fish dinner but include fun, relaxation, and quality time with family and friends. But the most powerful arguments for sustaining America's fishing tradition are about the economics of conservation. Anglers buy fishing licenses and pay excise taxes on every purchase of fishing tackle and boat fuel. That tax revenue funds habitat enhancement, protection, and management for most fish and wildlife species, not just the species targeted by anglers. In addition, these funds provide public access to recreational waters, continuing the cycle. In total, each year over \$1 billion in conservation dollars are invested by anglers.³ This is why it is so important to preserve and reinvigorate the fishing tradition in America. The results of this study will help the sportfishing community understand its competition and how to compete for

¹U.S. Department of the Interior, Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2006 National Survey of Fishing, Hunting and Wildlife-Associated Recreation. "Adults" includes all U.S. residents 16 years old and older.

²American Sportfishing Association and the Association of Fish and Wildlife Agencies. Angler Trends: Finding New and Lapsed Anglers, Plus License Renewal Rates. Conducted by Southwick Associates under Multi-State Grant M-49-0. March, 2007.

³\$634 million in 2009 sportfishing license and permit sales, plus \$404 million in excise tax dollars distributed to state fisheries agencies in 2009. Per the U.S. Fish and Wildlife Service, <http://wsfrprograms.fws.gov/home.html>.

anglers' time, which ultimately helps maintain the economic engine behind fish and wildlife conservation in the United States.

2. Methods

This study used a combination of fishing license analysis, focus groups, and a telephone survey. It focused on eight states, which were chosen to include a broad geographic spread and to represent states experiencing increasing and decreasing trends of fishing license holders. The eight states surveyed were Florida, Kentucky, Iowa, Indiana, New Hampshire, New York, Utah, and Oregon.

In addition to the geographic spread, the study also examined anglers in three participation levels: active anglers, lapsed anglers, and ex-anglers. Fishing license purchase history and self-reported participation in fishing were used to determine participation levels, with both approaches providing matching conclusions. Active anglers were defined as individuals who purchased a fishing license in each of the 3 most recent years (2007, 2008, and 2009) or who had purchased a license in 2009 and in four out of the five years between 2004 and 2008. Lapsed anglers were defined as individuals who had not purchased a license in 2009 but had purchased one in 2008 and at least one other year between 2004 and 2007. Ex-anglers were defined as individuals who had purchased a license in 2004 and 2005 but not since then, or had purchased a license in 2005 and 2006 but not since then. Appendix A provides a demographic description of active, lapsed, and ex-anglers.

A. Use of focus groups to develop the survey instrument

A series of eight focus groups was conducted with active anglers and lapsed/ex-anglers. The focus groups were conducted in Tampa, Florida; Harrisonburg, Virginia; and Portland, Oregon, in April, May, and December 2010. The results were used to develop the survey instrument by helping to further identify the full array of activities and issues influencing sportfishing participation in the United States today.

Focus group participants were recruited from lists of active, lapsed, and ex-anglers identified through state agency fishing license databases. All participants were mailed letters with a brief description of the focus group and a toll-free number to contact in case

of questions. A pre-screening questionnaire was used to ensure the diversity of participant selection and to minimize any bias in selection design.

The phone-based screener determined whether potential focus group participants met the established guidelines set for the group. The screeners included questions to determine age, gender, state and area of residence, fishing participation, and license purchasing history. After determining that the respondent was eligible to participate, he/she was informed of the focus group date, time, and location and mailed or e-mailed a confirmation letter. Participants were also asked if they wanted to receive a reminder call the day before the focus group to ensure that they would have the information they needed to attend the discussion, such as directions and time. To encourage participation, a monetary incentive of \$75 was given to focus group participants. During the recruiting process, the focus group recruiting manager maintained a progress table for each focus group to track the progress of the number of participants recruited and to log participant names, contact information, and essential participant characteristics. For each focus group, 12-14 individuals were recruited to account for the likelihood that some would not attend, thereby ensuring that 10-12 would attend. The recruiting manager ensured that all confirmation letters were sent out promptly to participants and that reminder calls were made, as necessary, the day before scheduled groups.

The focus group discussions were moderated by Mark Damian Duda, Executive Director of Responsive Management, and Alison Lanier, Responsive Management Research Associate. The role of the moderator was to keep the discussion within design parameters using a discussion guide, without exerting a strong influence on the discussion content. In this sense, focus groups are nondirective group discussions and expose spontaneous attitudes of small groups. The moderators ensured that the focus group room was set up appropriately, including furniture, recording equipment, and food arrangements. All focus group discussions were recorded for further analysis.

The group discussion guides allowed for consistency in data collection. Responsive Management developed the discussion guides in cooperation with the American Sportfishing Association and Southwick Associates, based on their knowledge of

sportfishing issues and angler recruitment and retention. While the discussion guides provided a general framework for directing the content of the focus groups, question order and phrasing were adjusted according to the dynamics of the group discussions. The discussion guides are included in Appendix B of this report.

B. Telephone Survey Methodology

i. Use of telephones for the survey

For the surveys, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones (both landlines and cell phones were called), the ability to scientifically sample licensed anglers and make adjustments to the sample frame as the surveys progressed, the high quality data that is provided by telephone surveys, and the high response rates that are obtained in a cost-effective manner.

ii. Questionnaire design

The telephone survey questionnaire was developed cooperatively by Southwick Associates and Responsive Management, with input from the State Working Group of the Recreational Boating and Fishing Foundation (RBFF) and RBFF staff led by Stephanie Hussey, Director for State Initiatives. The State Working Group is an advisory group composed of marketing and human dimensions experts from approximately ten state fisheries agencies. The authors are grateful for the RBFF's time and input. The questionnaire was pre-tested to ensure proper wording, flow, and logic in the survey. The questionnaire is shown in Appendix C.

The survey automatically moved respondents to the correct questions based on the respondent's responses to specific questions. For instance, only those who indicated that their level of participation increased were asked why it had increased. In addition, some questions had slightly different wording among respondents, based on their classification as active, lapsed/intermittent, or ex-anglers. These wording differences were

automatically coded into the survey and were triggered by the respondent's responses to specific questions.

iii. Survey sample

The study focused on eight states, chosen to include a broad geographic spread, as well as to include a range of states from those with increasing trends of fishing license holders to those with decreasing trends of fishing license holders since 1990: Florida, Kentucky, Iowa, Indiana, New Hampshire, New York, Utah, and Oregon.

As previously mentioned, both samples had three categories of respondents: active, lapsed/intermittent, and ex-anglers. These categories were defined based on the respondents' participation in fishing in the past five years, as stated in the survey in answer to a series of questions and as identified in each state's license database. The survey attempted to get a sufficient size sample in each of these categories rather than to obtain a sample in the actual proportions of those categories.

iv. Telephone interviewing facilities

A central polling site owned and operated by Responsive Management was used, allowing for rigorous quality control over the interviews and data collection. Experienced interviewers were employed using a computer-assisted telephone system. To ensure the integrity of the telephone survey data, Responsive Management has interviewers who have been trained according to the standards established by the Council of American Survey Research Organizations.. Methods of instruction included lecture and role-playing. The Survey Center Managers and other professional staff conducted a project briefing with the interviewers prior to the administration of this survey. Interviewers were instructed on type of study, study goals and objectives, handling of survey questions, interview length, termination points and qualifiers for participation, interviewer instructions within the survey questionnaire, reading of the survey questions, skip patterns, and probing and clarifying techniques necessary for specific questions on the survey questionnaire.

v. Interviewing dates and times

Telephone surveying times were Monday through Friday from 9:00 a.m. to 9:00 p.m., Saturday from noon to 5:00 p.m., and Sunday from 5:00 p.m. to 9:00 p.m., local time. A five-callback design was used to maintain the representativeness of the sample, to avoid bias toward people easy to reach by telephone, and to provide an equal opportunity for all to participate. When a respondent could not be reached on the first call, subsequent calls were placed on different days of the week and at different times of the day. The survey was conducted in January through April 2011.

vi. Telephone survey data collection and quality control

The software used for data collection was Questionnaire Programming Language (QPL). The survey data were entered into the computer as each interview was being conducted, eliminating manual data entry after the completion of the survey and the concomitant data entry errors that may occur with manual data entry. The survey questionnaire was programmed so that QPL branched, coded, and substituted phrases in the survey based on previous responses to ensure the integrity and consistency of the data collection.

The survey managers and statisticians monitored data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to evaluate the performance of each interviewer. The survey questionnaire itself contained automatic error checks and computation statements to ensure quality and consistent data. After the surveys were obtained by the interviewers, survey managers and/or statisticians checked the completed surveys to ensure completeness.

For active anglers, 3,596 completed surveys were obtained. Lapsed anglers provided 615 completed surveys, and 660 completed interviews were obtained from ex-anglers.

3. Fishing, Recreation, and Discretionary Time

This survey started by examining the amount of recreational time that anglers have to spend and whether that amount of time is increasing or decreasing over time. The time in an average day can be divided into three components.⁴

1. Existence Time: sleeping, eating, personal care
2. Subsistence Time: working, formal schooling, and commuting
3. Discretionary Time: time left over after existence and subsistence time have been allocated.

Discretionary time includes time devoted to recreational activities plus time devoted to family commitments, volunteering, and anything else that does not relate to working, commuting, formal schooling, sleeping, eating, and personal care. Generally speaking, recreational fishing is competing with other recreational activities for the subset of discretionary time that anglers devote to recreation. To understand the recreational activities that compete with fishing, we need to understand how much recreational time people have and how that amount of time might be changing.

Table 1 shows how much time anglers devote to recreation. The amount of time devoted to recreation is about the same across fishing participation levels. It averages a little over 3 hours per workday and about 6.5 hours per weekend day. This slice of time could be devoted to any combination of recreational activities, indoors or outdoors. Table 1 indicates that limited time is not a major reason why ex-anglers stop fishing, but it is a minor reason as described further below.

Table 1. Average Hours of Recreational Time Available

Type of Angler	Typical 5-day Work Week	Typical weekend
Active Anglers	16.3	13.5
Lapsed Anglers	15.2	11.2
Ex-Anglers	16.4	12.3
All Anglers	16.2	13.1

⁴ Jensen, C.R.; Guthrie, S.P. Outdoor Recreation in America (6thed.). Published by Human Kinetics. 2005.

Figure 1 shows how the amount of recreational time has changed over the past five years. For a majority of anglers, recreational time neither increased nor decreased over the past 5 years. However, recreational time decreased overall, as anglers who saw a decrease in recreational time outnumbered those who saw an increase in recreational time. The difference was most pronounced for ex-anglers. Figures 2 and 3 show the most common reasons for decreases or increases in an angler's recreational time.

Figure 1. Trends in Recreational Time

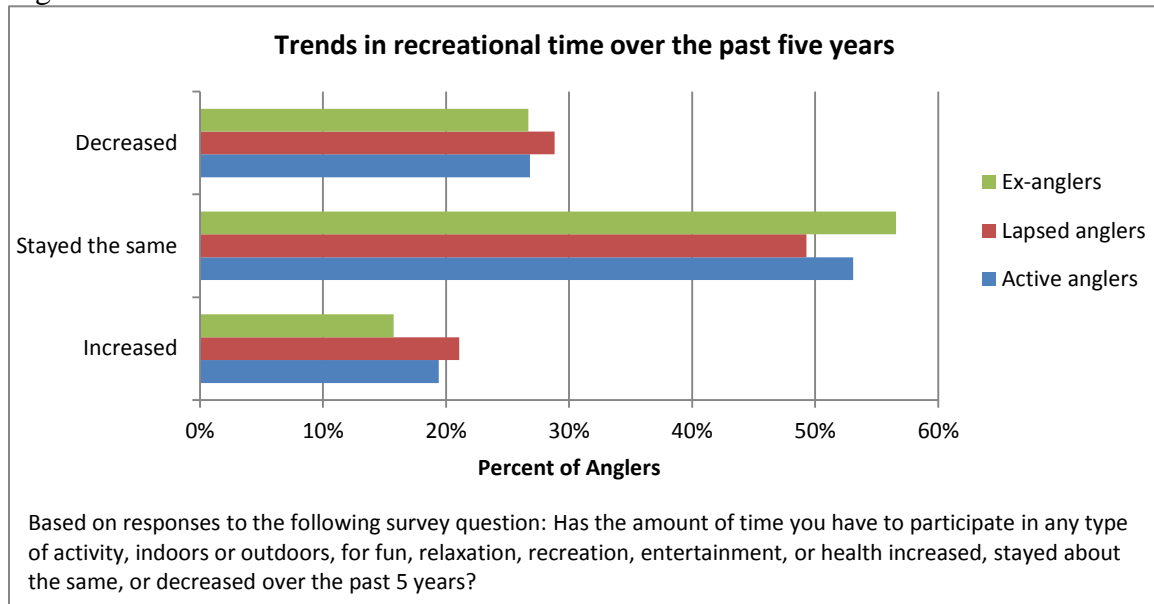


Figure 2. Reasons for Decreases in Recreational Time

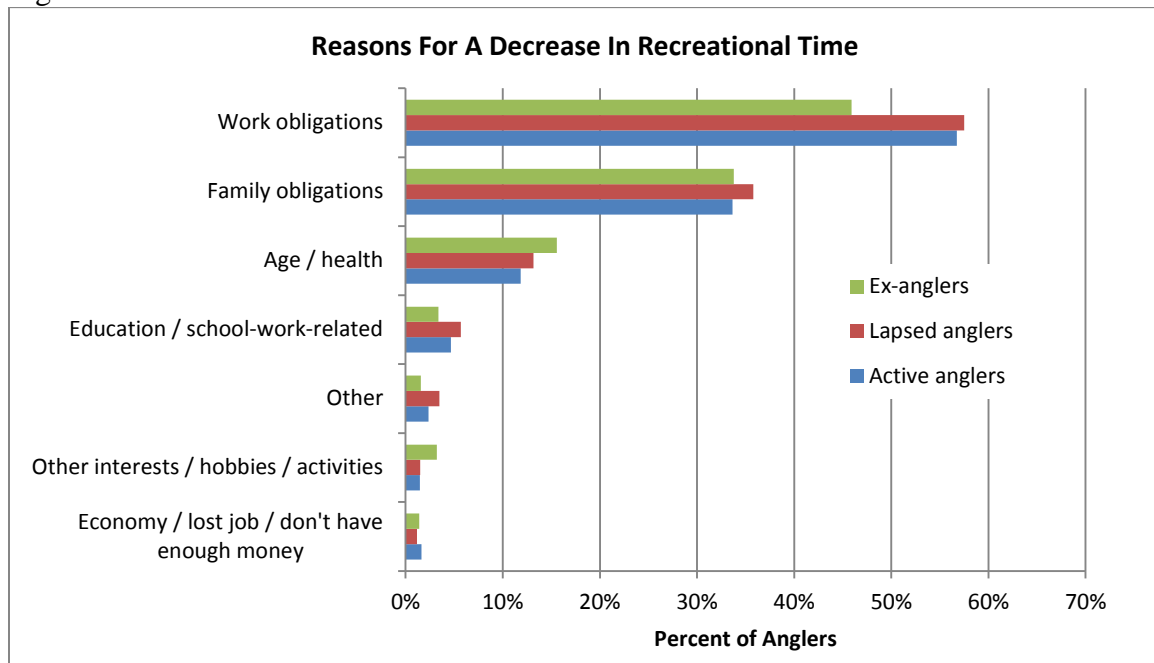
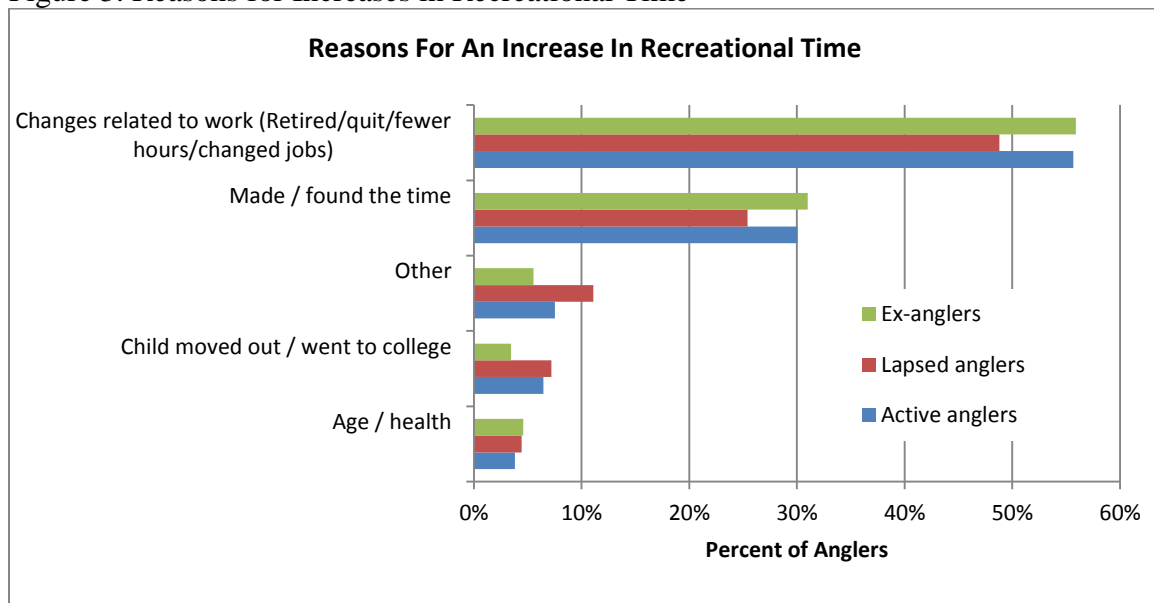


Figure 3. Reasons for Increases in Recreational Time



Work is the most likely reason for a decrease in an angler's total amount of recreational time. As work obligations increase in an angler's life, the competition for his or her recreational time becomes more and more fierce. Convenient activities—activities that fit

within the limited discretionary recreational time available to these people—will have an advantage.

Family is the second most likely reason for a decrease in an angler's total amount of recreational time. As described later in more detail, family obligations can relate to non-recreational demands, or it could be the family as a unit chose activities other than fishing as a way to spend time together. In the latter case, promoting fishing as a family-friendly activity may be successful.

Work is also the most likely reason for an increase in recreational time. As an angler's work obligations decrease, he or she will have more time for recreation. However, the second most common reason for an increase in recreational time is simply making or finding the time. This shows that, in many cases, people will simply make or find the time to pursue activities they enjoy. That is, people will spend their small slice of recreational time on activities that provide them with the most benefits, and they are willing to “squeeze in” activities that interest them, which may come at the expense of other activities that do not provide the same level of perceived benefits. The next chapter further explains what those benefits are, and what people want from their recreational time.

4. Understanding What People Want from Fishing and Other Recreational Activities

To understand which activities are competing with fishing, it is important to know people's motivations when choosing recreational activities. Figures 4 and 5 show the most important reasons that people participate in outdoor and indoor activities.

Figure 4. Why People Participate in Outdoor Recreation

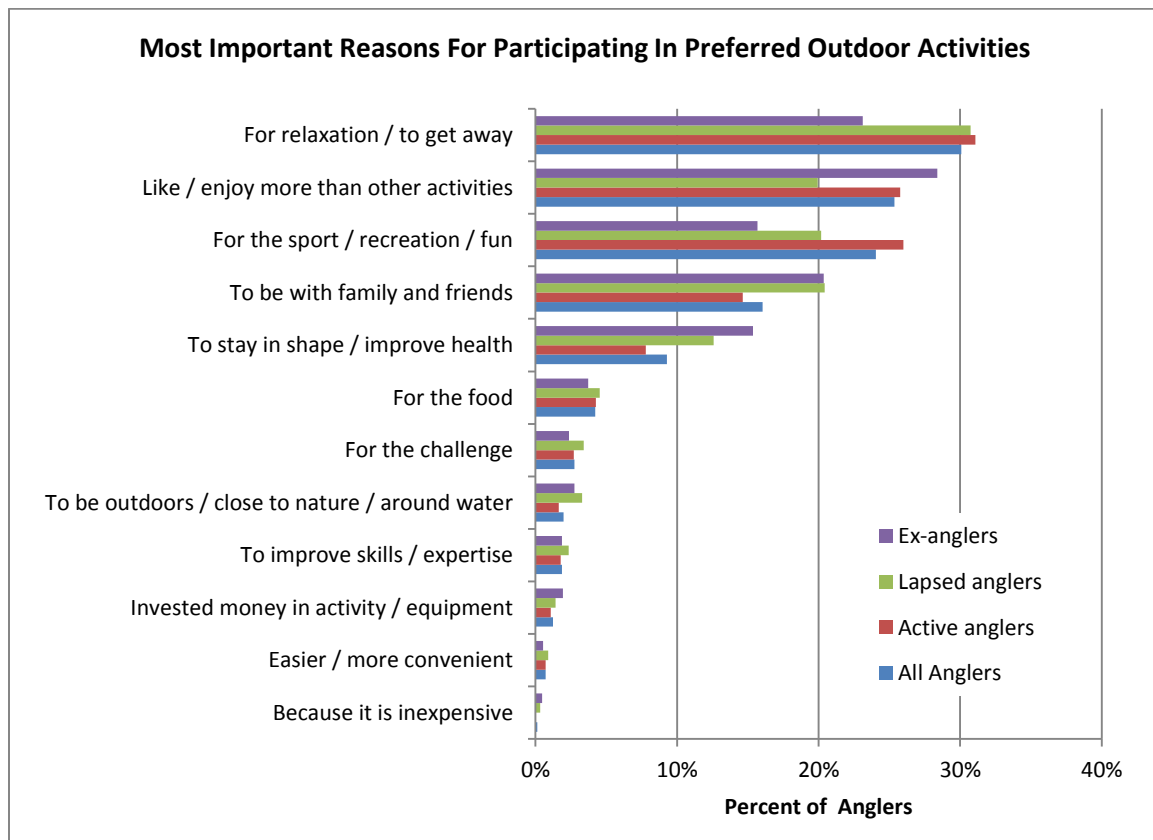
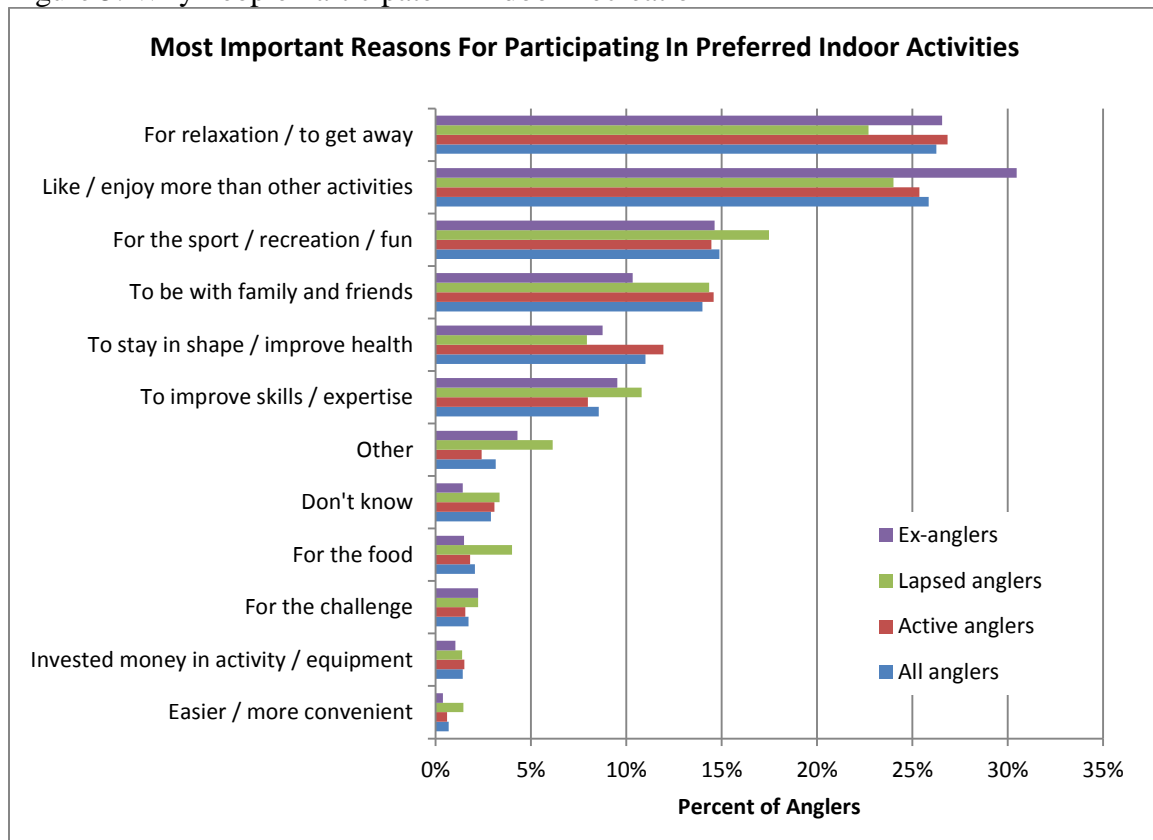


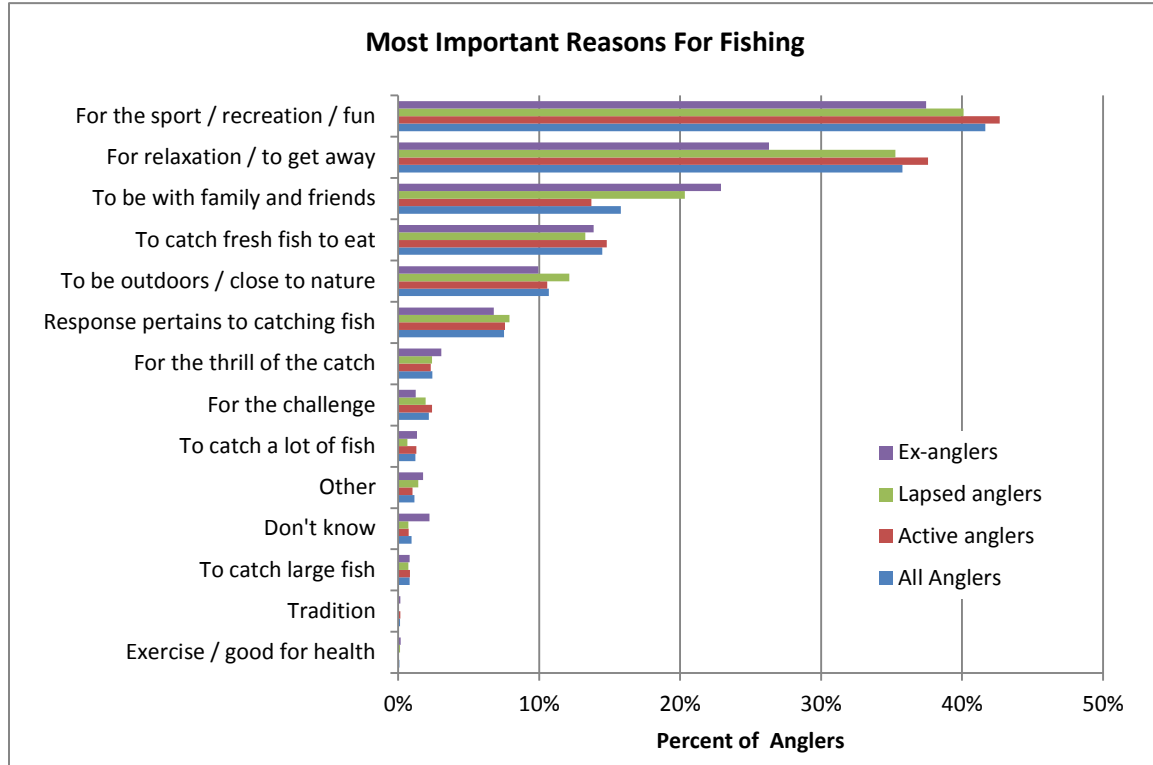
Figure 5. Why People Participate in Indoor Recreation



The reasons that people participate in indoor recreational activities are largely the same reasons that people participate in outdoor recreational activities. Fun, relaxation, quality time with family and friends, and improved health are the benefits that people want from their recreational activities.

As shown in Figure 6, people fish for mostly the same reasons that they participate in other recreational activities (Figs 4 and 5): for fun, relaxation, and to be with family and friends. Any activity that offers these benefits is competition for sportfishing.

Figure 6. Why People Participate in Fishing



The reasons unique to fishing such as catching fish to eat are secondary to the other benefits such as fun, relaxation and spending time with friends and family. These results imply that there is no single activity or even type of activity (indoor or outdoor) that has an inherent advantage in the competition for people's discretionary time. There are dozens of recreational activities that can deliver the recreational benefits that people want.

The survey results thus far show that the reasons people participate in fishing are generally the same reasons that they participate in other recreational activities. For most people, recreational time is well-spent if the activity they choose is able to deliver fun, relaxation, quality time with friends and family, and some health benefits. With this in mind, let's look closer at the recreational activities that anglers choose.

5. Identifying the Competition

The survey asked anglers to indicate the three outdoor and three indoor activities that they participated in most often for fun, relaxation, recreation, entertainment, or health over the past two years. Table 2 shows the results for outdoor activities, and Table 3 shows the results for indoor activities indicated by anglers. Keep in mind that these tables do not necessarily indicate the activities where anglers spent the most time but rather the activities that they participate in most *often*.

Table 2. Most Common Outdoor Activities of Anglers					
Active Anglers		Lapsed Anglers		Ex-Anglers	
Activity	Percent	Activity	Percent	Activity	Percent
Recreational freshwater fishing	42%	Hiking	18%	None, did not participate in any outdoor activities	18%
Big game hunting	23%	Camping	16%	Big game hunting	16%
Camping	17%	Recreational freshwater fishing	15%	Gardening	14%
Recreational saltwater fishing	15%	Gardening	12%	Camping	13%
Hiking	11%	Big game hunting	12%	Hiking	12%
Golfing	10%	None, did not participate in any outdoor activities	11%	Trail running or walking for fitness	10%
Gardening	9%	Golfing	10%	Golfing	9%
Small game hunting	8%	Trail running or walking for fitness	10%	Other types of biking	6%
Motorboating, not including jetskiing	7%	Other types of biking	9%	Other	5%
Trail running or walking for fitness	6%	Swimming outdoors	6%	Small game hunting	5%

Table 3. Most Common Indoor Activities of Anglers					
Active Anglers		Lapsed Anglers		Ex-Anglers	
Activity	Percent	Activity	Percent	Activity	Percent
None, did not participate in any indoor activities	36%	None, did not participate in any indoor activities	31%	None, did not participate in any indoor activities	35%
Relaxing / watching TV	26%	Relaxing / watching TV	29%	Relaxing / watching TV	26%
Reading	9%	Reading	11%	Reading	12%
Cooking	6%	Cooking	9%	Other	8%
Other	5%	Other	6%	Cooking	6%
Video games	5%	Playing on the computer	6%	Video games	4%
Playing cards / cribbage	4%	Video games	5%	Don't know	4%
Strength training or weight lifting	3%	Knitting / sewing / crocheting	4%	Knitting / sewing / crocheting	4%
Don't know	3%	Artistic activities (e.g., painting, sculpting, crafting)	3%	Playing on the computer	4%
Playing on the computer	3%	Playing cards / cribbage	3%	Playing cards / cribbage	3%

Fishing and hunting are the most common outdoor activities of active anglers, but hunting, camping, hiking, golfing, and gardening are also popular. Lapsed anglers do not show a strong preference for any one outdoor activity, but they clearly enjoy a wide variety of outdoor activities, with hiking, camping, and fishing at the top of the list. Ex-anglers also enjoy hunting, gardening, camping, and hiking, but many also indicate that they do not participate in any outdoor activities. For a substantial portion of lapsed and ex-anglers who no longer participate in outdoor activities, the reason may be due to poor health or old age (See Figure 3).

Regarding indoor activities preferred by anglers, relaxing/watching TV is the most common, followed by reading, cooking, video games, computer, and cards. There is not much difference between active, lapsed, and ex-anglers.

Rates of non-participation shown in Tables 2 and 3 are informative because they show that, in general, anglers prefer outdoor recreation to indoor recreation. When you ask anglers to name the three indoor activities they participated in most often over the past two years, the most common response indicated is “None, I did not participate in any

indoor recreational activities.” In fact, 35% of all survey respondents said that they do not participate in any indoor activities, compared to only 7% who said that they do not participate in any outdoor activities. Even ex-anglers, who tend to be older and have more health problems than active or lapsed anglers, the non-participation rate for indoor activities is higher than it is for outdoor activities.

Table 4 compares participation rates in outdoor and indoor activities, showing how they stack up against each other. This table omits answers of “None, did not participate in any outdoor/indoor recreational activities” and “other.” It clearly shows that television is the indoor activity that presents the greatest competition to recreational sportfishing. Given the convenience of television and its ability to fill short time periods not conducive to fishing or other activities, television may always remain the top activity. However, there are some aspects of television that do challenge for time that could be used for sportfishing , such as weekend televised sporting events where the time could also be spent fishing.

Table 4. Percent of Anglers Participating in Various Outdoor and Indoor Recreational Activities, by Type of Angler (selected from a list of 75 common activities)

Active Anglers		Lapsed Anglers		Ex-Anglers	
Freshwater fishing	42%	Relaxing / watching TV	29%	Relaxing / watching TV	26%
Relaxing / watching TV	26%	Hiking	18%	Big game hunting	16%
Big game hunting	23%	Camping	16%	Gardening	14%
Camping	17%	Freshwater fishing	15%	Camping	13%
Saltwater fishing	15%	Gardening	12%	Hiking	12%
Hiking	11%	Big game hunting	12%	Reading	12%
Golfing	10%	Reading	11%	Trail running/walking for fitness	10%
Gardening	9%	Golfing	10%	Golfing	9%
Reading	9%	Trail running/walking for fitness	10%	Cooking	6%
Small game hunting	8%	Cooking	9%	Bicycling (not mountain biking)	6%

The survey also asked anglers how many hours per week they spend on their top three indoor and outdoor activities. Using responses to this set of questions, we can determine if anglers spend most of their recreational time indoors or outdoors (Table 5).

Table 5. Hours Spent in Outdoor Activities for Each Hour Spent in Indoor Activities

Type of Angler	Ratio of Outdoor to Indoor Recreational Time
Active Anglers	2.2
Lapsed Anglers	1.1
Ex-Anglers	1.5
All Anglers	1.9

In aggregate, across all survey respondents, anglers spent 90% more time participating in outdoor activities than in indoor activities. In general, when compared to lapsed anglers and ex-anglers, active anglers spend a greater share of their recreational time outside.

The bottom line from this discussion of indoor versus outdoor activities is that anglers are more likely to spending their recreational time outside. To be sure, recreational fishing competes with both indoor and outdoor activities. However, anglers prefer to spend their recreational time outside. Even ex-anglers, who are often older, prefer to spend their recreational time outside. Fishing's primary competition for recreational time is in other outdoor activities as opposed to indoor activities. One potential tactic to increase fishing participation is to promote its outdoor benefits, or as a gateway to many other forms of outdoor activities and benefits, as discussed in previous work by the Outdoor Foundation.⁵

6. Understanding Declines in Fishing Participation

Anglers stop or decrease participation in fishing for a variety of reasons, which can be divided into three categories:

- a. Reasons related to the allocation of time and shifting priorities: work obligations, family obligations, and changes in the way recreational time is spent
- b. Health or aging
- c. Reasons that are specifically related to fishing

⁵Outdoor Foundation. Outdoor Recreation Participation Report, 2011.

Figure 7 shows the most common reasons for decreasing participation among active and lapsed anglers for whom fishing participation has decreased over the past five years.

Figure 8 shows the main reasons why fishing is no longer a top activity among anglers for whom fishing formerly was a top priority.

Figure 7. Most Common Reasons Why Some Anglers Experience Declines in Fishing Activity

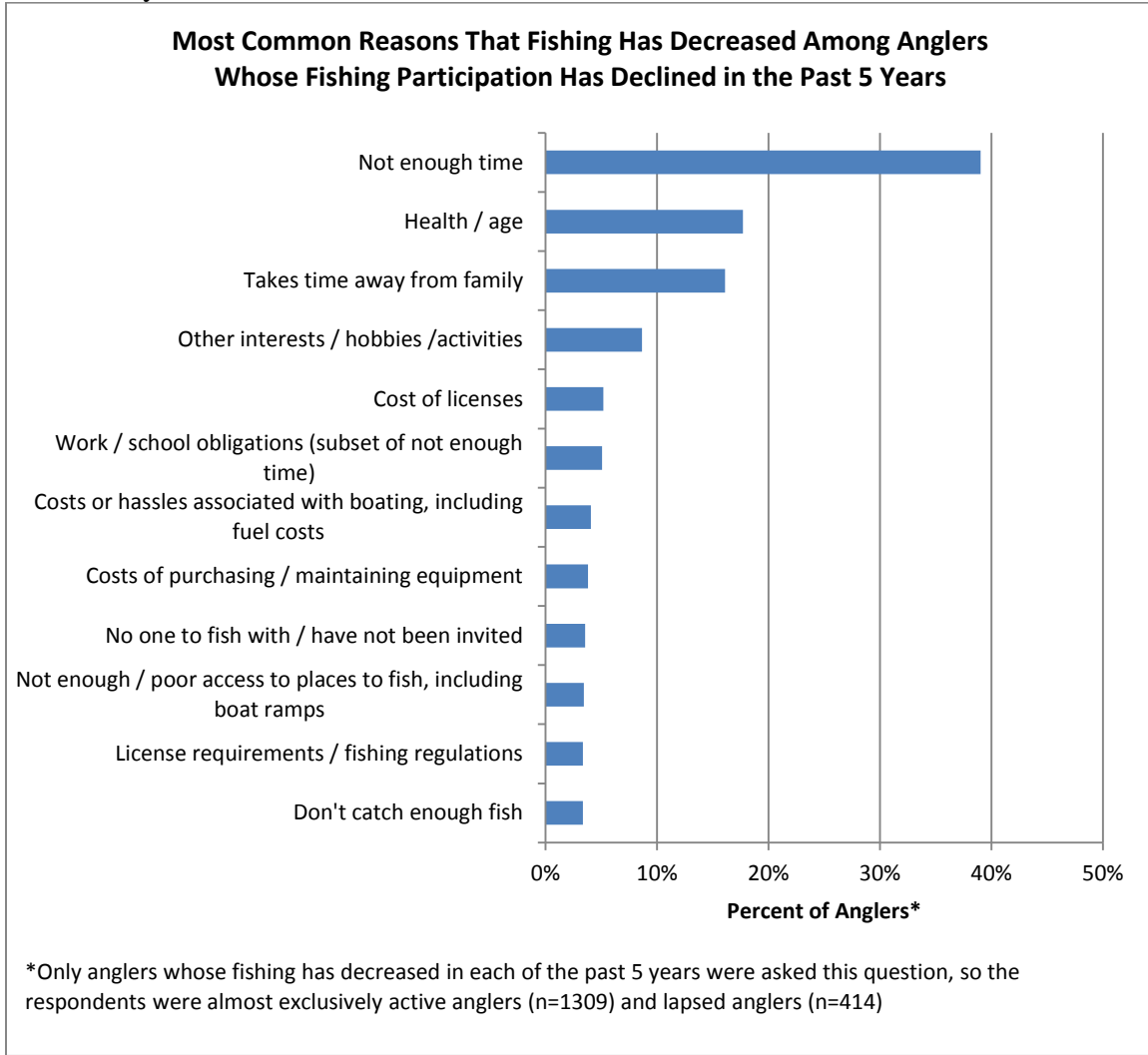
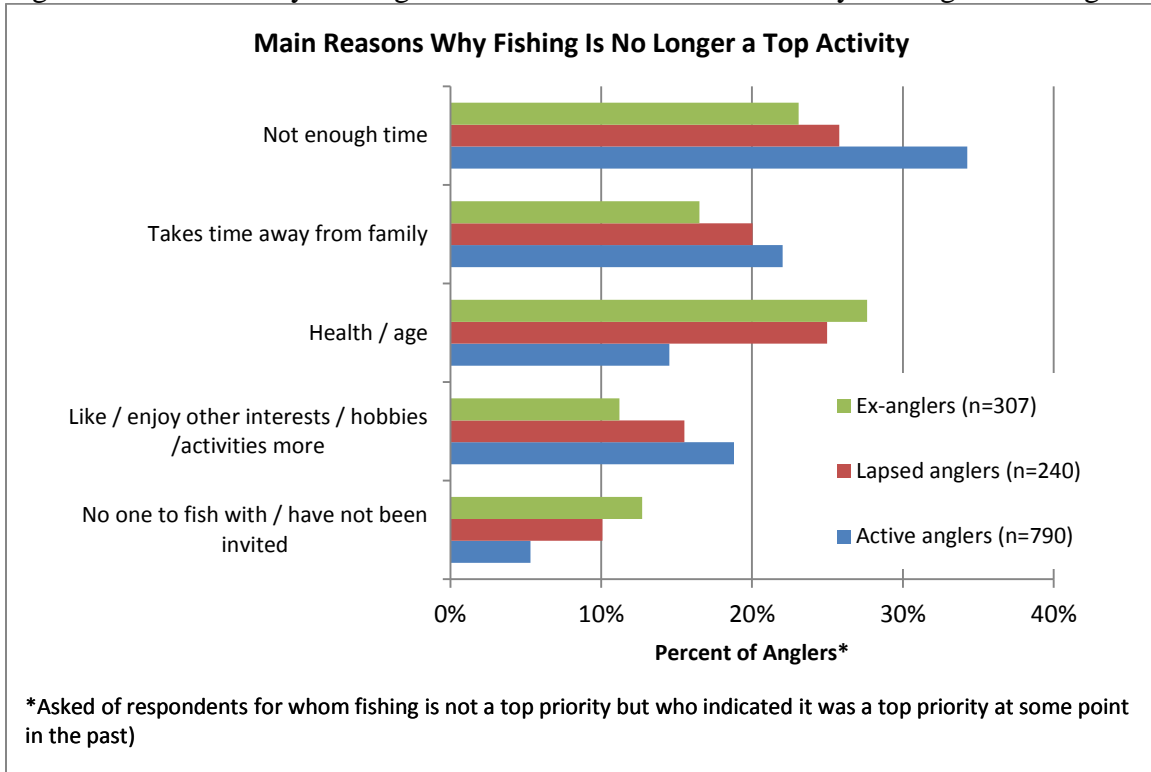


Figure 8. Reasons Why Fishing Has Fallen as a Preferred Activity Among Some Anglers



In this section, we will examine each of these categories by looking at how common they are and what, if anything, can be done to address them and help people get back to fishing more often.

A. Cessation or decline in fishing participation due to “time” and shifting priorities

When anglers were asked why their fishing has decreased, their most common answer is related to time. This answer comes in several forms. Fishing may take time away from family, fishing may be taking a back seat to increased work or school obligations, or, most commonly, anglers say that they simply do not have enough time in general.

Obviously, the reality is that we all have the same amount of time in a given day, week, or year. Often, when we say we do not have enough time to do something, it actually means we are choosing to do other more important or enjoyable things with our time. Our priorities are changing, and activities that were high priorities previously have become lower priorities. In this sense, “not enough time” is not the primary cause of declining participation; it is the result of either a) shifting recreational interests or b) a decrease in total time allotted to recreation as a result of increasing obligations around family, work, or school. Let’s look at both of these scenarios.

a) Shifting recreational interests

If an angler is spending less time fishing and more time participating in other recreational activities, it may not necessarily be because he enjoys those other activities more than fishing *per se*, but rather because his friends and family participate in those activities or because he finds those activities more convenient. In this case, all it may take to for him to go fishing more often is to have a friend or family member invite him to go fishing, or to find a way to make fishing more convenient.

b) Increasing work/family/school obligations

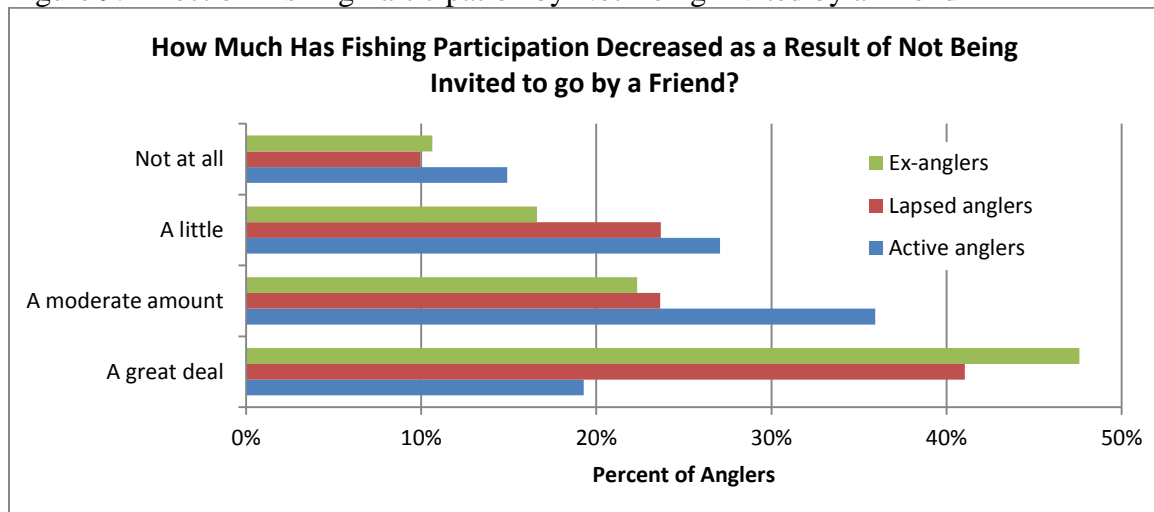
When people have increasing work, family, or school obligations, they have less time for recreation in general, not just fishing. They may still have time to recreate, but they will only participate in their highest priority recreational activities or in activities that fit within a reduced time frame. These recreational activities might not be the person's favorite activities but rather the ones that are the most convenient for them or the ones that their family and friends are most likely to participate in. In some cases, and the extent of which this research does not indicate, "family obligations" means the family members simply decided to do something else with their time, like getting involved in organized sports for the kids. Their recreational time may not have declined, but the family as a whole prioritized other activities over fishing.

The bottom line is that "not enough time" or some variant of that response is the most commonly given reason for a decrease in fishing participation. This means that fishing is in fierce competition with other recreational activities for people's discretionary time. The less time people have for recreation, the higher value will be placed on convenience and not just the sheer enjoyment of a particular recreational activity. Favorite activities may be set aside for activities that are more convenient. To attract more anglers, or to retain current anglers, fishing must be as convenient and hassle-free as possible, and people need to know how fishing can fit into busy schedules.

1. Inviting a Friend to Go Fishing

"Not enough time for fishing" can be a result of other activities—or other people—carving out space on anglers' calendars before fishing gets the chance. Figure 9 shows that, for most anglers whose participation in fishing has declined, at least part of the reason is because they have not been invited to go by a friend.

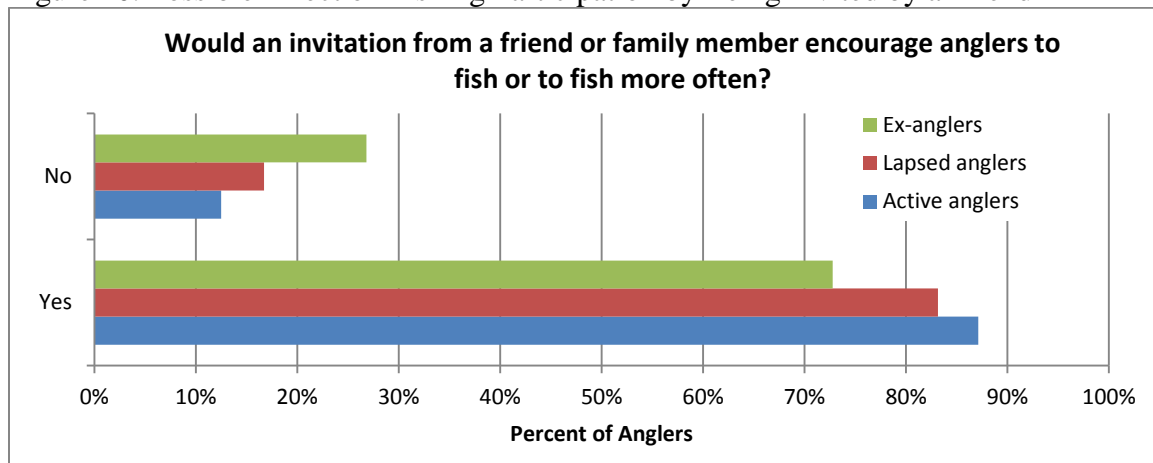
Figure 9. Effect on Fishing Participation by Not Being Invited by a Friend



Another way to address the problems of “not enough time” and “takes time away from family” is by recognizing and acting on the fact that fishing is a social activity. Fishing provides a way to maintain and strengthen social ties between people.

Figure 10 shows that a simple invitation to go fishing would increase participation among active, lapsed, and ex-anglers. This indicates that interest in fishing remains high enough that many would fish again, or fish more often, if only someone would invite them to go.

Figure 10. Possible Effect on Fishing Participation by Being Invited by a Friend



Of all potential tactics identified to increase fishing participation, encouraging active anglers to invite their friends and family to go fishing is perhaps the simplest and lowest cost way to increase fishing participation.

B. Cessation or decline in fishing participation due to health or aging

Poor health or aging is the second most common reason for declining participation in fishing. As expected, ex-anglers are, on average, older than active and lapsed anglers. Clearly, recreational participation will change as people grow older, and older people tend to participate in more convenient, less strenuous activities. Many older people develop health problems that force them to stop certain activities that they once enjoyed. Compared to earlier generations, however, the current older generation is healthier than ever. In addition, compared to younger people who are working or in school, older people often have more time outside of work to pursue recreational and leisure activities. Further, many older people welcome opportunities to spend quality time with younger family members.

C. Cessation or decline in fishing participation for reasons that are specifically related to fishing

When anglers who have stopped or decreased their participation in fishing are asked why they have done so, reasons specifically related to fishing are rarely mentioned. For

example, Figure 11 shows that when anglers are asked if there are disadvantages or difficulties with fishing that cause them to view other activities as more attractive, a strong majority say “no.” A very small percentage of anglers indicate that there are disadvantages with fishing, including costs associated with licenses, boating, and equipment, and access issues.

Figure 11. Fishing’s Disadvantages

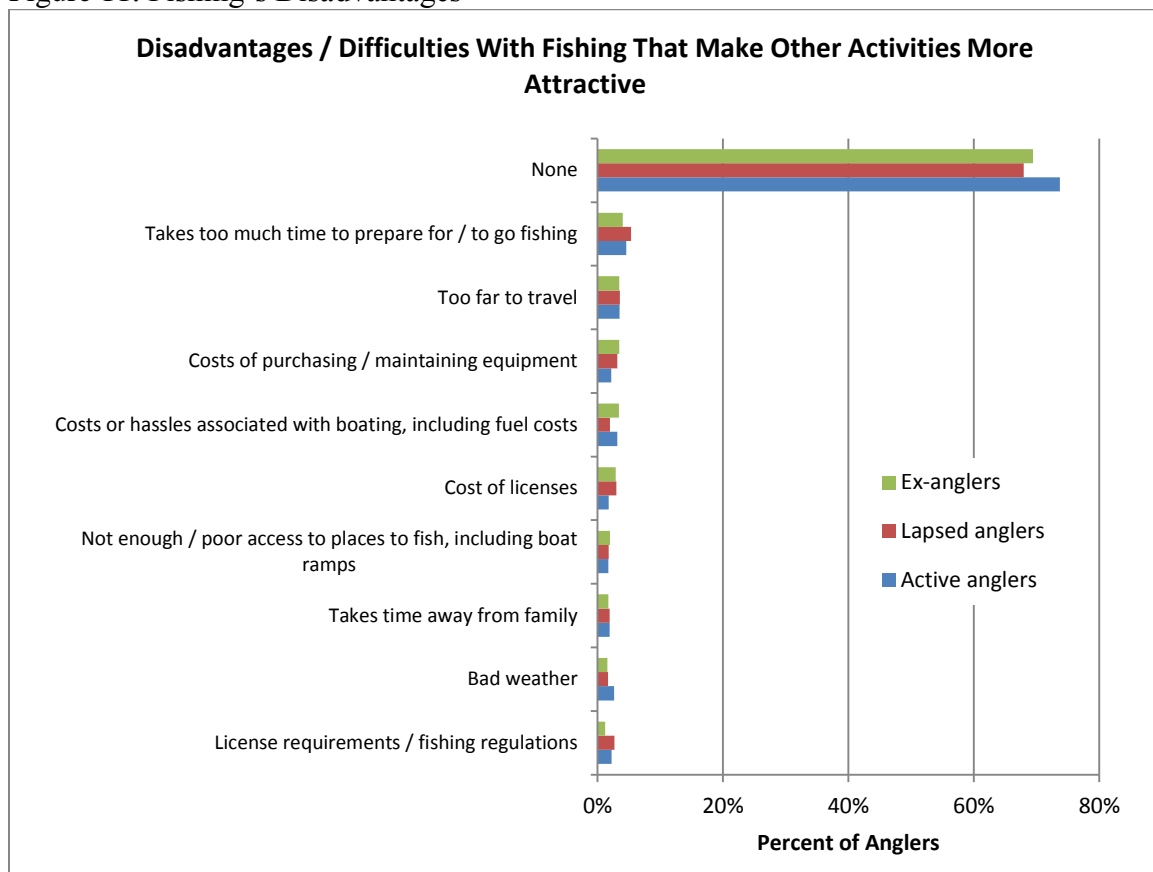
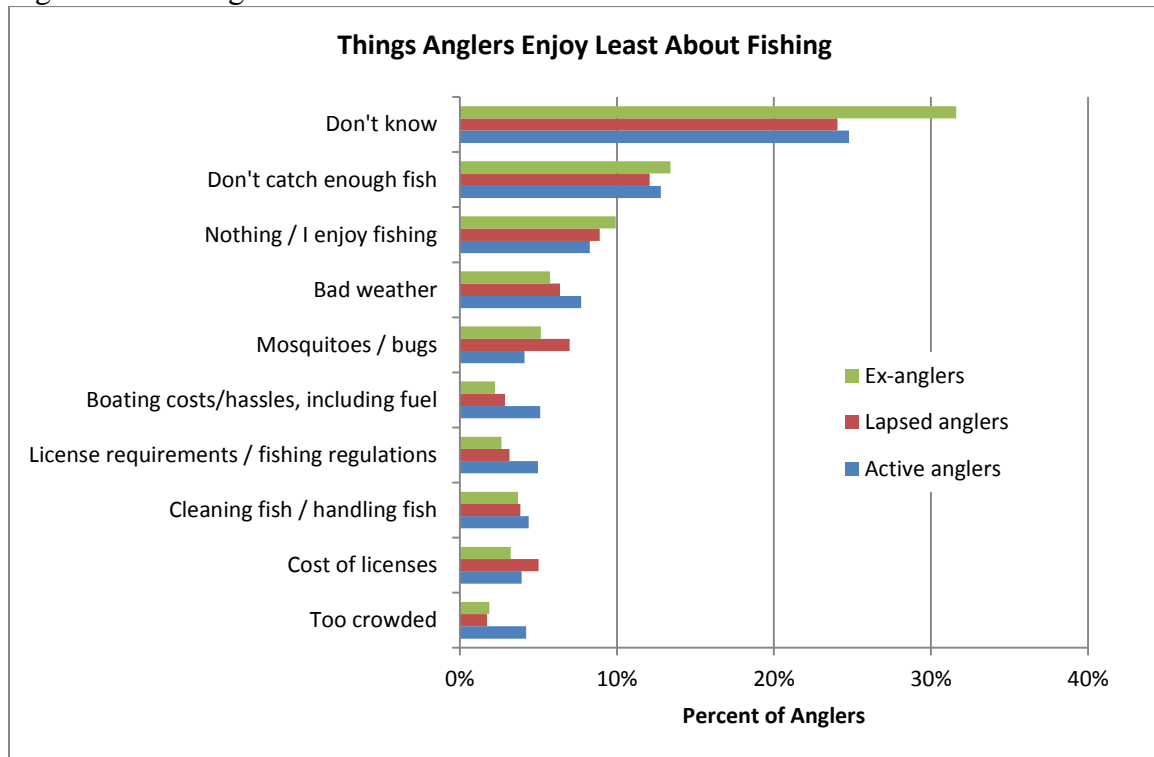


Figure 12 shows responses that anglers give when they are asked what they like least about fishing. The three most common responses are “I don’t know,” “not catching enough fish,” and “nothing / I enjoy fishing”. Figure 12 shows that even when you ask anglers to indicate the things that they enjoy least about fishing, two of the three most common responses are “I don’t know” and “Nothing / I enjoy fishing.” Although anglers also give responses related to not catching enough fish, bad weather, and other hassles and costs, the percentage of anglers giving these types of responses is generally small. To

be clear, there are parts of any activity that are less enjoyable relative to the highlights. However, Figure 11 makes it very clear that, for most anglers who have decreased participation in fishing, there is very little about fishing *as compared to other activities* that makes people want to participate in those activities more than fishing. Future marketing efforts do not need to focus on overcoming any perceived negatives to fishing.

Figure 12. Fishing's Distractions



Putting It all Together: Strategies for Increasing Participation in Recreational Fishing

There are many potential strategies and tactics that can help increase fishing participation. Based on the results of this research, the top three strategies, accompanied by possible tactics, are:

A. Emphasize fun, relaxation, family, and friends

The survey showed that people go fishing because it is fun, because they want to relax, and because they want to spend quality time with family and friends. All fishing promotions and messaging must emphasize fun, relaxation, family, and friends. Promote simple, hassle-free methods of fishing and easy access locations for fishing.

In messages and advertising designed to recruit new anglers or to retain wavering anglers, do not make fishing look complicated. Emphasize how simple and fun it is to catch a fish, how relaxing a day on the water can be, and the opportunities fishing provides for experiencing nature. Show people from all walks of life fishing, across all ages. Do not focus on the complex, costly, or extreme types of fishing activities. Once people adopt fishing as a preferred activity, many will gravitate to these forms of fishing.

B. Increase convenience

For many, recreational time is scarce and declining. There are many recreational activities competing for this small slice of time, and small differences in convenience may often be the deciding factor. Most anglers do not live in rural areas where the most pristine fishing areas are often located, so fishing opportunities and access in urban and suburban areas must be provided. Other tactics include promoting affordable guided fishing trips where anglers can show up with minimal equipment or preparation and receive a fun fishing experience. The sportfishing community should provide locations where anglers can borrow or rent fishing gear and receive other basics such as instruction

for use or conveniently located waters. Many state fishery agencies already offer such services, and more are needed.

C. Promote programs that encourage anglers to invite others to go fishing

The best way to create new anglers is for family members or friends to invite them to go fishing. This approach looks at current anglers as a potential sales force. The RBFF's Anglers' Legacy Program (www.takemefishing.org) is a good example of success in this area. This is the right approach to increase the ranks of anglers, and resources for marketing should reflect it.

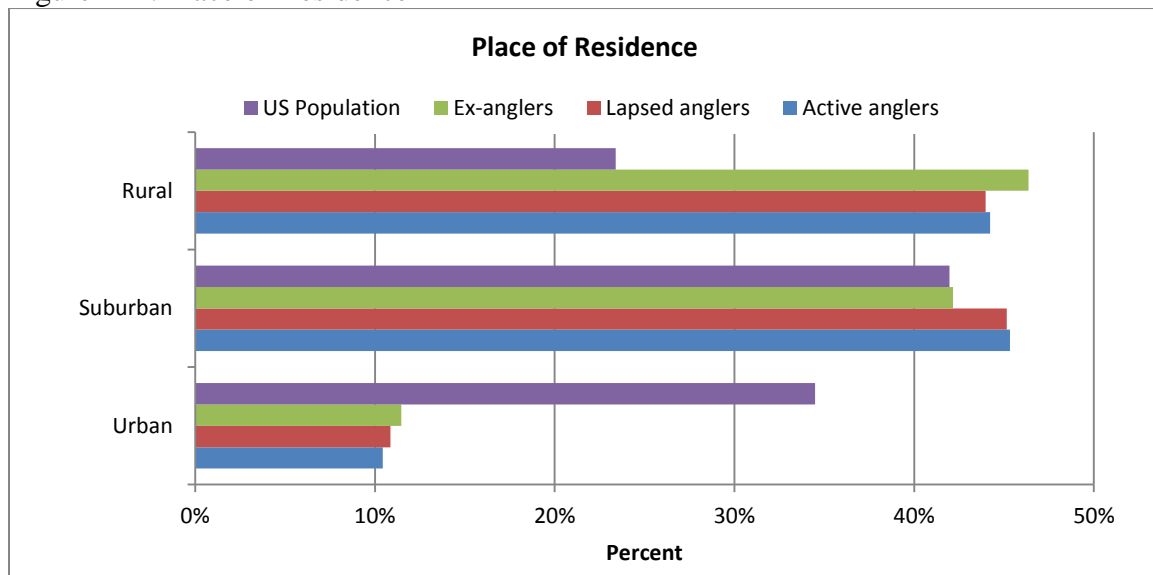
Appendix A. Angler Demographics

A recent study⁶ by Southwick Associates, Inc., on behalf of the American Sportfishing Association (ASA) and the Association of Fish and Wildlife Agencies (AFWA) found that the person most likely to buy a fishing license lives in a rural area or a small town, holds a blue collar job, and earns an average or below average income. Thirty-three percent of all license purchases are made by people with these demographic characteristics. However, the study also found that one quarter of all license purchases are made by upper income folks, and 13% of license purchases are made by retirees.

The survey used in the current analysis revealed similar demographic patterns among anglers.

According to the addresses of survey respondents, anglers are more rural than the U.S. population as whole: approximately 80% of the U.S. population lives in urban and suburban areas, whereas only 56% of survey respondents live in urban and suburban areas (see Figure A-1).

Figure A-1. Place of Residence



⁶ Lifestyles and License Buying Habits of America's Anglers (2007), available at http://www.rbff.org/uploads/Research_section/Related_Research/ASA-AFWA_License_Analysis_Summary_Report_2006.pdf

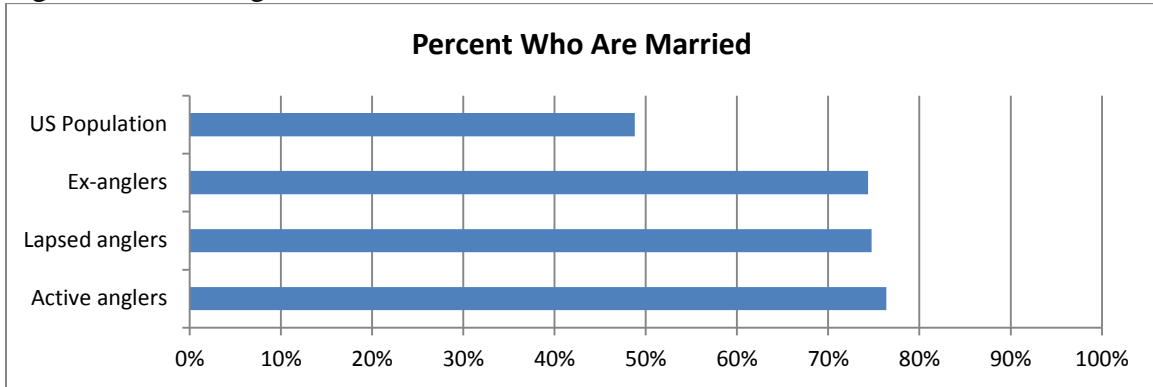
Anglers are much older than the U.S. population as a whole. The median age in the U.S. is 37.2 years, while the median age of anglers in the survey was 53 years (see Table A-1). *Please use this comparison with caution.* The mean of anglers was determined based on a sampling of licensed anglers, who range typically from 16 to, in most cases, 65 years of age. Compared to the median age of the U.S. population, the median age of anglers is skewed upwards by the exclusion of anglers under 16 years of age, but to a degree is held lower by the exclusion of seniors over 65 who, in most states, do not need a license. The net effect is unknown.

Table A-1. Angler Age

Status of Angler	Median Age
Active anglers	53 years
Lapsed anglers	53 years
Ex-anglers	57 years

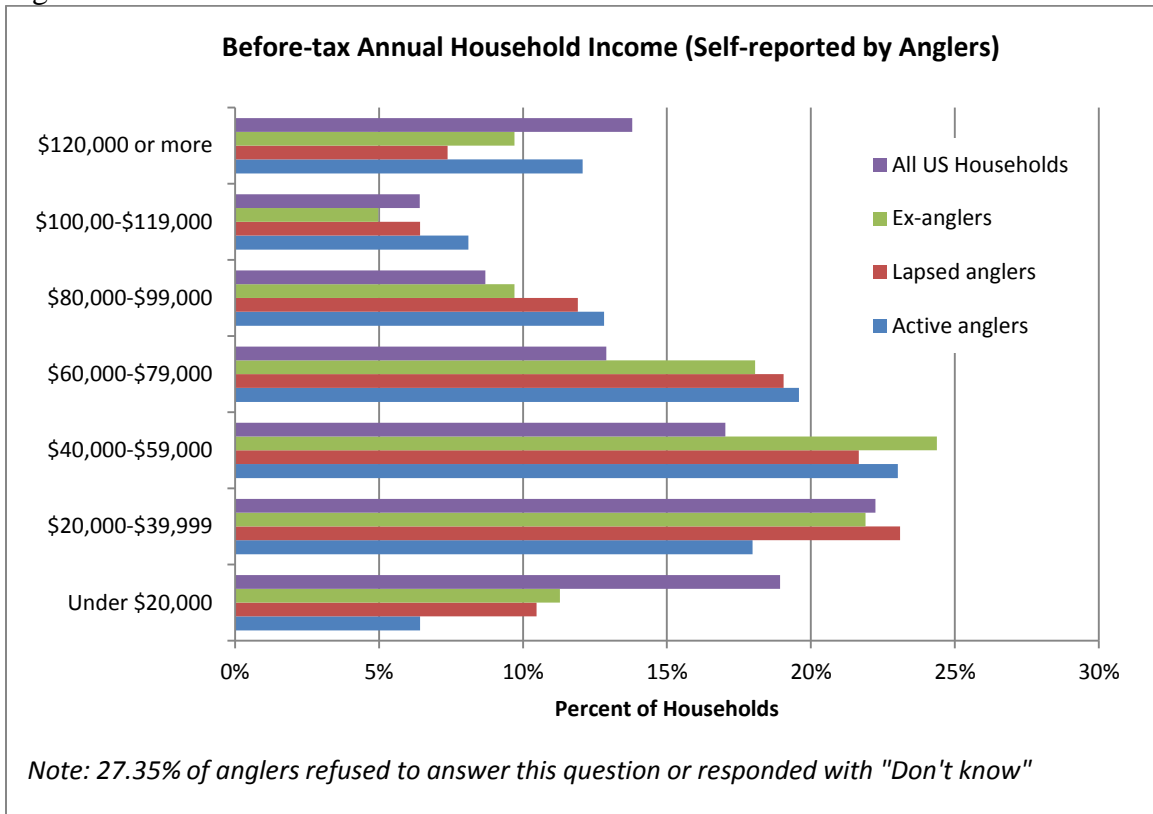
As shown in Figure A-2, the majority of anglers are married. Anglers are more likely to be married than the average U.S. resident: 49% of U.S. residents over 15 years of age are married.

Figure A-2. Marriage Status



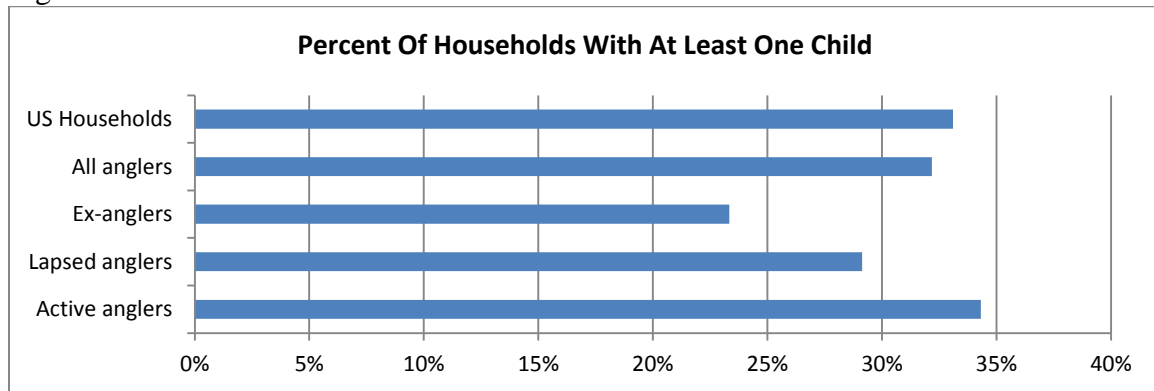
As shown in Figure A-3, compared to U.S. households as a whole, angler households are less likely to have very low incomes or very high incomes. Also shown in Figure A-3, active anglers have higher incomes than lapsed and ex-anglers, on average.

Figure A-3. Household Income



Active anglers are more likely than lapsed and ex-anglers to have children living in their household (Figure A-4). Angler households contain children at about the same rate as all U.S. households.

Figure A-4. Children in the Household



Appendix B: Focus Group Discussion Guides

2010 AFWA Multistate Conservation Grant Program Project

Identifying Sportfishing's Competition

Active Angler Focus Group Discussion Guide

FINAL

Focus Group Objectives

- To identify the activities in which active anglers participate in addition to fishing, if they participate in them more than in fishing, and, if so, why.
- To identify the characteristics of these additional activities and why active anglers choose to participate in the activities more than in fishing.
- To identify factors and/or incentives that would motivate active anglers to increase participation in fishing.

I. Introduction

a. Purpose of Focus Group

- i. To better understand your participation in recreational activities, including fishing, and how [Oregon / Florida] residents spend their non-work time.

b. Rules

- i. Speak one at a time.
- ii. Be respectful:
 1. of others' opinions, even if you disagree
 2. do not interrupt; you will have a chance to speak

c. Self-introductions

- i. Introduce self to group
- ii. Name
- iii. Years lived in [Oregon / Florida]

II. Available Recreational Time

- a. This evening I'd like to talk about the activities you participate in during your non-work time.
- b. About how much time do you have each week that you do not have work or other obligations?
- c. About how much time do you participate in activities for fun, relaxation, recreation, entertainment, or health each week?
- d. In general over the course of a year, do you spend more time on outdoor or

indoor activities for fun, relaxation, recreation, entertainment, and health?

III. Recreational Fishing Participation

- a. Now I'd like to talk to you specifically about recreational fishing. I understand that each of you have purchased a/an [Oregon / Florida] fishing license in the past 12 months. Is this correct?
- b. How would you describe your level of fishing activity?
 - i. About how many days did you go fishing in the past 12 months?
 - ii. Overall, would you say your fishing participation has increased, decreased, or stayed about the same?
- c. What are your most important reasons for fishing?
- d. What do you enjoy most about fishing?
- e. What do you enjoy least about fishing?
- f. Are there any things that prevent you from fishing as much as you would like? (What are they?)
 - i. Is there any one obstacle to your fishing that is more important than the others?
- g. Please tell me which of the following statements best describes you:
 - i. I fish as much as I like.
 - ii. I used to fish a lot more, but my work obligations have increased and take away from my fishing time now.
 - iii. I used to fish a lot more, but my family obligations have increased and take away from my fishing time now.
 - iv. I used to fish a lot more, but now I prefer to spend time on other recreational activities.

IV. Participation in Activities

- a. Next, I would like to talk a little bit more about the activities you participate in during your non-work time.
- b. In what OUTDOOR activities have you participated in the past 12 months for fun, relaxation, recreation, entertainment, or health during your non-work time? (IF ASKED: This includes ANY activity done in the outdoors for fun, relaxation, recreation, entertainment, or health.)
- c. In what INDOOR activities have you participated in the past 12 months for fun, relaxation, recreation, entertainment, or health during your non-work time? (IF ASKED: This includes ANY activity done indoors for fun, relaxation, recreation, entertainment, or health.)
- d. Which of these activities, including both outdoor and indoor activities as well as fishing, do you participate in most often? (PROMPT FOR AT LEAST TOP THREE ACTIVITIES)
 - i. Why do you participate in these activities most often?
 1. What do you like most about these activities?
 2. What are your most important reasons for participating in these activities?

3. Why do you continue to participate in them more than in other activities?
4. Are there any things that take away from your satisfaction with these activities? (What are they?)

V. Comparison / Contrast of Fishing and Preference for Other Activities

- a. For those of you who did not say fishing was one of your top activities that you participated in most often, was it ever a top or favorite activity for you?
 - i. (IF YES) Why is it no longer a top or favorite activity for you?
- b. For those of you who said fishing is one of your top activities, what are the reasons you participate in fishing more than in other activities? i. What do you like more about fishing than about other activities?
 - ii. What are your most important reasons for participating in fishing more often than in other activities?
 - iii. Would you say you spend more time on fishing than any other one of your top activities?
 1. (IF NO) What activities do you spend more time on than fishing?
- c. (FOR EVERYONE) If you do, why do you participate in other activities more than fishing?
 - i. What are the benefits of participating in these other activities rather than fishing?
 - ii. What are the specific reasons that participating in these other activities is more appealing to you than fishing?
- d. Are there any disadvantages, complications, or hassles associated with fishing that make participating in these other activities more appealing?
- e. IF there were no limitations on your amount of free time, money, or travel and you had to choose only ONE activity you could participate in, what would it be?
 - i. (IF NAME FISHING) For those of you who said fishing, what are the reasons you choose to participate in other activities (when you do)?
 - ii. (IF NAME ACTIVITY OTHER THAN FISHING) Why is this activity more appealing to you than fishing?

VI. Likelihood of and Motivations for Future Fishing Participation

- a. Do you plan to go fishing in [Oregon / Florida] again in the next 12 months?

- i. (IF NO) Why not?
 - ii. (IF NO) How about in the next 2 years, the next 5 years, or more?
 - 1. (IF 5 YEARS OR MORE) Why not until 5 years or more?
- b. Are there any things that would make you start fishing more? (What are they?)
- c. Are there any things that would make you prefer to fish rather than participating in some of the other activities you participate in most often? (What are they?)
- d. How can we make fishing more appealing than the other activities you participate in?

VII. Closing

- a. Thank you for coming tonight and talking about your recreational activities.
- b. Does anyone have any additional comments or questions?

Appendix C. Survey Instrument

- I. Survey Introduction
- a. Hello, my name is _____, and I'm calling under a grant from the U.S. Fish and Wildlife Service. This grant program is administered by the Association of Fish and Wildlife Agencies and in partnership with the American Sportfishing Association. We are conducting research on recreational fishing. We are not selling anything or asking for donations. Do you have a few minutes to answer some questions for me? Your answers are entirely confidential.
 - b. Including freshwater and saltwater fishing, how many of the past 3 years have you gone fishing in [STATE OF RESIDENCE]?
(ENTER NUMBER 0 TO 3)
 - c. (IF FISHED 1 OR 2 OF PAST 3 YEARS IN STATE) Did you go fishing in [STATE OF RESIDENCE] in 2009?
(IF ASKED: Including both freshwater and saltwater fishing.)
 - i. (IF DON'T KNOW) SKIP TO I.e.
 - d. (IF DID NOT FISH 3 OF PAST 3 YEARS IN STATE OR DID NOT GO FISHING IN 2009) What was the last year you went fishing in [STATE OF RESIDENCE]?
(IF ASKED: Including both freshwater and saltwater fishing.)
(ENTER LAST YEAR WENT FISHING, UPPER LIMIT 2008)
 - i. (IF FISHED 3 OF PAST 3 YEARS OR IF FISHED IN 2009 = ACTIVE ANGLER)
 - ii. (IF FISHED 1 OR 2 OF PAST 3 YEARS AND DID NOT FISH IN 2009 = LAPSED ANGLER)
 - iii. (IF FISHED 0 OF PAST 3 YEARS = EX-ANGLER)
 - e. Including freshwater and saltwater fishing, how many of the past 3 years have you gone fishing outside of [STATE OF RESIDENCE]?
(ENTER NUMBER 0 TO 3)
 - f. (IF FISHED 1 OR 2 OF PAST 3 YEARS OUT OF STATE) Did you go fishing outside of [STATE OF RESIDENCE] in 2009?
(IF ASKED: Including both freshwater and saltwater fishing.)
 - i. (IF DON'T KNOW TO b., c., e. and f.) END SURVEY
 - g. (IF DID NOT FISH 3 OF PAST 3 YEARS OUT OF STATE OR DID NOT GO FISHING IN 2009) What was the last year you went fishing outside of [STATE OF RESIDENCE]?
(IF ASKED: Including both freshwater and saltwater fishing.)
(ENTER LAST YEAR WENT FISHING, UPPER LIMIT 2008)
- II. Participation in Recreational Fishing
- a. In general, how avid an angler do you currently consider yourself on a scale of 0 to 10, where 0 is you do not consider yourself an angler at all

and 10 is you consider yourself an extremely avid angler?
(ENTER NUMBER 0 TO 10)

- b. Including fishing both in and out of [STATE], how many days total did you go FRESHWATER fishing in [2009 / LAST YEAR WENT FISHING]?
(ENTER NUMBER OF DAYS)
- c. Including fishing both in and out of [STATE], how many days total did you go SALTWATER fishing in [2009 / LAST YEAR WENT FISHING]?
(ENTER NUMBER OF DAYS)
- d. (IF ACTIVE ANGLER OR LAPSED ANGLER) Has the number of days you fish each year increased, stayed about the same, or decreased over the past 5 years?
(IF ASKED: Including both freshwater and saltwater fishing.)
(IF ASKED: Including both in-state and out-of-state fishing.)
(CHECK ONLY ONE ANSWER)

- i. Increased
- ii. Stayed the same
- iii. Decreased
- iv. DNR: Don't know

1. What is the main reason your fishing has [INCREASED / DECREASED]?

(IF ASKED: Including both freshwater and saltwater fishing.)

(IF ASKED: Including both in-state and out-of-state fishing.)

(OPEN-ENDED)

(INCREASED RESPONSE OPTIONS)

(DO NOT READ LIST; CHECK ALL THAT APPLY)

- a. To catch fresh fish to eat
- b. To catch large fish
- c. To catch a lot of fish
- d. To be with family and friends
- e. For the sport / recreation / fun
- f. For the challenge
- g. For the thrill of the catch
- h. To be outdoors / close to nature
- i. For relaxation / to get away
- j. Other (ENTER OTHER)
- k. DNR: Don't know

(DECREASED RESPONSE OPTIONS)

(DO NOT READ LIST; CHECK ALL THAT APPLY)

- l. Takes time away from family
- m. Other interests / hobbies /activities (indoors or outdoors)

- n. Not enough time
 - o. Takes too much time to prepare for / to go fishing
 - p. Too crowded
 - q. Poor behavior of other recreationists (e.g., other anglers, boaters, jet skiers, etc.)
 - r. No one to fish with / have not been invited
 - s. Health / age
 - t. Lack skills / expertise
 - u. Too far to travel
 - v. Don't know where to go / hard to find good location
 - w. Not enough / poor access to places to fish, including boat ramps
 - x. Don't catch enough fish
 - y. Quality of water / pollution / fish contamination
 - z. Cost of licenses
 - aa. Costs of purchasing / maintaining equipment
 - bb. Costs or hassles associated with boating, including fuel costs
 - cc. License requirements / fishing regulations
 - dd. Don't want to go more often
 - ee. Other (ENTER OTHER)
 - ff. Don't know
- e. What [ARE / WERE] your most important reasons for fishing?
(IF ASKED: Including both freshwater and saltwater fishing.)
(OPEN-ENDED)
(DO NOT READ LIST; CHECK ALL THAT APPLY)
- i. To catch fresh fish to eat
 - ii. To catch large fish
 - iii. To catch a lot of fish
 - iv. To be with family and friends
 - v. For the sport / recreation / fun
 - vi. For the challenge
 - vii. For the thrill of the catch
 - viii. To be outdoors / close to nature
 - ix. For relaxation / to get away
 - x. Other (ENTER OTHER)
 - xi. DNR: Don't know
- f. What [DO / DID] you enjoy LEAST about fishing?
(IF ASKED: Including both freshwater and saltwater fishing.)
(IF ASKED: Including both in-state and out-of-state fishing.)
(OPEN-ENDED)
(DO NOT READ LIST; CHECK ALL THAT APPLY)
- i. Takes time away from family
 - ii. Takes too much time to prepare for / to go fishing
 - iii. Too crowded

- iv. Poor behavior of other recreationists (e.g., other anglers, boaters, jet skiers, etc.)
 - v. Lack skills / expertise
 - vi. Too far to travel
 - vii. Don't know where to go / hard to find good location
 - viii. Not enough / poor access to places to fish, including boat ramps
 - ix. Don't catch enough fish
 - x. Quality of water / pollution / fish contamination
 - xi. Cost of licenses
 - xii. Costs of purchasing / maintaining equipment
 - xiii. Costs or hassles associated with boating, including fuel costs
 - xiv. License requirements / fishing regulations
 - xv. Don't want to go more often
 - xvi. Other (ENTER OTHER)
 - xvii. Don't know
- g. Now I'm going to ask about several things that may or may not have influenced you to fish less or not fish at all, and I'd like to know if each strongly influenced, moderately influenced, or did not influence you to fish less or not fish at all. What about [FACTOR]?
- (IF ASKED: Including both freshwater and saltwater fishing.)
- (IF ASKED: Including both in-state and out-of-state fishing.)
- (ADMINISTER IN RANDOM ORDER)
- i. Other interests, hobbies, or activities (IF ASKED: either indoors or outdoors)
 - ii. Not enough time
 - iii. It takes too much time to prepare for or to go fishing
 - iv. Too crowded
 - v. Poor behavior of other recreationists, such as other anglers, boaters, or jet skiers
 - vi. There is no one to fish with or you have not been invited to go
 - vii. Health or age
 - viii. Because you feel you lack skills or expertise
 - ix. You have to travel too far
 - x. You don't know where to go or it is hard to find good location
 - xi. Not enough or poor access to places to fish, including boat ramps
 - xii. You don't catch enough fish The quality of water, water pollution, or fish contamination
 - xiii. The cost of licenses
 - xiv. The costs of purchasing or maintaining equipment
 - xv. The costs or hassles associated with boating, including fuel costs
 - xvi. License requirements and fishing regulations
 - xvii. I don't want to go more often
 - xviii. Other (ENTER OTHER)
 - xix. Don't know
1. (IF SAID NOT ENOUGH TIME STRONGLY OR MODERATELY INFLUENCED) You said not enough

time influenced you to [FISH LESS / NOT FISH AT ALL]. What are the specific reasons for not having enough time to go fishing?

(OPEN-ENDED)

(DO NOT READ LIST; CHECK ALL THAT APPLY)

- a. Work obligations
- b. Education / school-work-related
- c. Family obligations
- d. Takes time away from family
- e. Other interests / hobbies / activities
- f. Buying a license takes too much time
- g. Buying / finding equipment takes too much time
- h. No place nearby / Too much travel time
- i. Too much time to prepare for or to go fishing
- j. Other (ENTER OTHER)
- k. Don't know

2. (IF SAID OTHER INTERESTS / HOBBIES / ACTIVITIES STRONGLY OR MODERATELY INFLUENCED OR WAS REASON DID NOT HAVE ENOUGH TIME) You said that other interests, hobbies, or activities [INFLUENCED YOU TO FISH LESS OR NOT FISH AT ALL / WAS THE REASON YOU DID NOT HAVE ENOUGH TIME TO FISH]. Specifically what other interests, hobbies, or activities prevent you from going fishing more often or having time to go fishing?
(OPEN-ENDED)

(USE LISTS FROM III)

3. (IF SAID HAVING NO ONE TO GO WITH OR NOT BEING INVITED STRONGLY OR MODERATELY INFLUENCED) You said that not having anyone to go fishing with or not being invited influenced you to [FISH LESS / NOT FISH AT ALL]. How much would you say your fishing activity decreased over the past 5 years as a result of not being invited to go by a friend? Would you say a great deal, a moderate amount, a little, or not at all?
(CHECK ONLY ONE ANSWER)

- a. A great deal
- b. A moderate amount
- c. A little
- d. Not at all
- e. DNR: Don't know

- h. (IF ACTIVE ANGLER) Please tell me which of the following statements best describes you:

- i. I have always been a pretty avid angler, fishing often every year.
- ii. I used to fish a lot more, but my work obligations have increased and take away from my fishing time now.

- iii. I used to fish a lot more, but my family obligations have increased and take away from my fishing time now.
 - iv. I used to fish a lot more, but now I prefer to spend time on other recreational activities.
 - v. DNR: None of these
 - vi. DNR: Don't know
 - i. (IF LAPSED ANGLER OR EX-ANGLER) Please tell me which of the following statements best describes you:
 - i. I have always been a pretty casual angler, fishing only every few years or so.
 - ii. I used to fish a lot more, but my work obligations have increased and take away from my fishing time now.
 - iii. I used to fish a lot more, but my family obligations have increased and take away from my fishing time now.
 - iv. I used to fish a lot more, but now I prefer to spend time on other recreational activities.
 - v. DNR: None of these
 - vi. DNR: Don't know
- III. Participation in Other Activities
- a. Next, I would like to ask you about the activities you participate in during your non-work time overall, including fishing.
 - b. Can you please tell me what **THREE OUTDOOR** activities you have participated in **MOST OFTEN** for fun, relaxation, recreation, entertainment, or health during your non-work time in the past 2 years? (IF ASKED: This includes ANY activity done in the outdoors for fun, relaxation, recreation, entertainment, or health.) (IF ASKED: This includes any type of fishing activity if it is one of the three outdoor activities you participated in most often in the past 2 years.) (OPEN-ENDED)
(DO NOT READ LIST; CHECK ONLY THREE)
 - i. Recreational freshwater fishing
 - ii. Recreational saltwater fishing
 - iii. Motorboating, not including jetskiing
 - iv. Canoeing or kayaking
 - v. Jet skiing or using a waverunner
 - vi. Sailing
 - vii. Water skiing
 - viii. Swimming outdoors in a pool or natural body of water
 - ix. Camping
 - x. Hiking
 - xi. Trail running or walking for fitness
 - xii. Mountain biking
 - xiii. Other types of biking
 - xiv. Rock climbing
 - xv. Wildlife viewing or bird watching
 - xvi. Visiting a state or national park

- xvii. Basketball
 - xviii. Baseball
 - xix. Softball
 - xx. Soccer
 - xxi. Kickball (organized or team kickball, not soccer)
 - xxii. Other organized, league, team, or field sports outdoors (ENTER OTHER)
 - xxiii. Tennis
 - xxiv. Golfing
 - xxv. Snow sports (including skiing, snowmobiling, or snowboarding)
 - xxvi. Gardening
 - xxvii. Motorcycling
 - xxviii. Target shooting (outdoor range or other area)
 - xxix. Big game hunting
 - xxx. Small game hunting
 - xxxi. Waterfowl hunting
 - xxxii. Other (ENTER OTHER OUTDOOR ACTIVITY)
 - xxxiii. DNR: None, I did not participate in any outdoor activities
 - xxxiv. DNR: Don't know
- c. Can you please tell me what THREE INDOOR activities you have participated in MOST OFTEN for fun, relaxation, recreation, entertainment, or health during your non-work time in the past 2 years?
(IF ASKED: This includes ANY activity done indoors for fun, relaxation, recreation, entertainment, or health.)
(OPEN-ENDED)
(DO NOT READ LIST; CHECK ONLY THREE)
- i. Swimming indoors
 - ii. Running or walking on a treadmill
 - iii. Aerobics or other cardio fitness
 - iv. Strength training or weight lifting
 - v. Cooking
 - vi. Relaxing / watching TV
 - vii. Video games
 - viii. Dancing
 - ix. Basketball
 - x. Volleyball
 - xi. Other organized, league, or team sports indoors (ENTER OTHER)
 - xii. Target shooting (indoor range)
 - xiii. Other (ENTER OTHER INDOOR ACTIVITY)
 - xiv. DNR: None, I did not participate in any indoor activities
 - xv. DNR: Don't know
- a. (ASK FOR EACH TOP OUTDOOR AND INDOOR ACTIVITY NAMED) You said [ACTIVITY] is one of the three [OUTDOOR / INDOOR] activities you participate in most often. How many days total did you participate in [ACTIVITY] in 2009?
(ENTER NUMBER OF DAYS)

- b. (ASK FOR EACH TOP OUTDOOR AND INDOOR ACTIVITY NAMED) Has the number of days you participate in [ACTIVITY] each year increased, stayed about the same, or decreased over the past 5 years? (CHECK ONLY ONE ANSWER)
- i. Increased
 - ii. Stayed about the same
 - iii. Decreased
 - iv. DNR: Don't know
1. (IF INCREASED) What is the main reason your participation in [ACTIVITY] has INCREASED? (OPEN-ENDED)
(DO NOT READ LIST; CHECK ONLY ONE ANSWER)
 - a. Like / enjoy more than other activities
 - b. Have more time to participate
 - c. To improve skills / expertise
 - d. To be with family and friends
 - e. For the sport / recreation / fun
 - f. For the challenge
 - g. For relaxation / to get away
 - h. To stay in shape / improve health
 - i. Invested money in activity / equipment
 - j. Other (ENTER OTHER)
 - k. Don't know
- c. What are your most important reasons for participating in [ACTIVITY]? (OPEN-ENDED)
(DO NOT READ LIST; CHECK ALL THAT APPLY)
- i. Like / enjoy more than other activities
 - ii. To improve skills / expertise
 - iii. To be with family and friends
 - iv. For the sport / recreation / fun
 - v. For the challenge
 - vi. For relaxation / to get away
 - vii. To stay in shape / improve health
 - viii. Invested money in activity / equipment
 - ix. Other (ENTER OTHER)
 - x. Don't know
- IV. Available Recreational Time in General and for Specific Activities
- a. During an average week, that is a typical week not a vacation week, about how many hours MONDAY THROUGH FRIDAY do you have to participate in any type of activity, indoors or outdoors, for fun, relaxation, recreation, entertainment, or health?
(ENTER HOURS)
 - b. During an average WEEKEND, that is a typical weekend, about how many hours SATURDAY THROUGH SUNDAY do you have to participate in any type of activity, indoors or outdoors, for fun, relaxation,

recreation, entertainment, or health?

(ENTER HOURS)

- c. Has the amount of time you have to participate in any type of activity, indoors or outdoors, for fun, relaxation, recreation, entertainment, or health increased, stayed about the same, or decreased over the past 5 years?

(CHECK ONLY ONE ANSWER)

- i. Increased
- ii. Stayed the same
- iii. Decreased
- iv. DNR: Don't know

1. (IF INCREASED / DECREASED) What are the main reasons your amount of time to participate in these activities has [INCREASED / DECREASED]?

(OPEN-ENDED)

(INCREASED RESPONSE SET)

(DO NOT READ LIST; CHECK ALL THAT APPLY)

- a. Made / found the time
- b. I stopped / decreased fishing
- c. I stopped /decreased participation in other activities / hobbies / interests
- d. Retired / quit work
- e. Changed jobs / employment
- f. Finished school
- g. Child(ren) moved out / went to college
- h. Other (ENTER OTHER)
- i. Don't know

(DECREASED RESPONSE SET)

(DO NOT READ LIST; CHECK ALL THAT APPLY)

- j. Work obligations
- k. Education / school-work-related
- l. Family obligations
- m. Takes time away from family
- n. Other interests / hobbies / activities
- o. Buying / finding equipment takes too much time
- p. No place nearby / Too much travel time
- q. Too much time to prepare for or to do activity
- r. Other (ENTER OTHER)
- s. Don't know

- d. Currently, during an average or typical week, including weekdays and weekends, about how many hours do you spend fishing in general?

(IF ASKED: Including both freshwater and saltwater fishing.)

(IF ASKED: Including both in-state and out-of-state fishing.)

(ENTER HOURS)

- e. (NOTE: If a fishing activity was named as a top activity, still ask about the specific activity because the preceding question was asked about all fishing in general.)
You said that [OUTDOOR ACTIVITY 1], [OUTDOOR ACTIVITY 2], and [OUTDOOR ACTIVITY 3] are the three OUTDOOR activities you participate in most often. During an average or typical week, about how many hours do you spend participating in [OUTDOOR ACTIVITY 1]? (ENTER HOURS)
 - f. How about [OUTDOOR ACTIVITY 2]? (During an average or typical week, including weekdays and weekends, about how many hours do you spend participating in this activity?) (ENTER HOURS)
 - g. How about [OUTDOOR ACTIVITY 3]? (During an average or typical week, including weekdays and weekends, about how many hours do you spend participating in this activity?) (ENTER HOURS)
 - h. You said that [INDOOR ACTIVITY 1], [INDOOR ACTIVITY 2], and [INDOOR ACTIVITY 3] are the three INDOOR activities you participate in most often. During an average or typical week, including weekdays and weekends, about how many hours do you spend participating in [INDOOR ACTIVITY 1]? (ENTER HOURS)
 - i. How about [INDOOR ACTIVITY 2]? (During an average or typical week, including weekdays and weekends, about how many hours do you spend participating in this activity?) (ENTER HOURS)
 - j. How about [INDOOR ACTIVITY 3]? (During an average or typical week, including weekdays and weekends, about how many hours do you spend participating in this activity?) (ENTER HOURS)
- V. Comparison / Contrast of Fishing and Other Activities
- a. If you could only participate in ONE activity one weekend, would you choose fishing, [OUTDOOR ACTIVITY 1 THAT IS NOT FISHING], [OUTDOOR ACTIVITY 2 THAT IS NOT FISHING], [OUTDOOR ACTIVITY 3 THAT IS NOT FISHING], [INDOOR ACTIVITY 1], [INDOOR ACTIVITY 2], OR [INDOOR ACTIVITY 3]? (CHECK ONLY ONE ANSWER)
 - i. Fishing
 - ii. Outdoor activity 1
 - iii. Outdoor activity 2
 - iv. Outdoor activity 3
 - v. Indoor activity 1
 - vi. Indoor activity 2
 - vii. Indoor activity 3
 - viii. DNR: Don't know

- b. (IF DID NOT NAME FRESHWATER OR SALTWATER FISHING AS ONE OF THREE OUTDOOR ACTIVITIES PARTICIPATED IN MOST OFTEN) Earlier, you did NOT name fishing as one of your top activities. Was fishing ever a top activity for you?
 (IF ASKED: Including both freshwater and saltwater fishing.)
 (IF ASKED: Including both in-state and out-of-state fishing.)
 (CHECK ONLY ONE ANSWER)
- i. Yes
 - ii. No
 - iii. DNR: Don't know
 - 1. (IF YES) What are the main reasons why it is no longer a top activity for you?
 (OPEN-ENDED)
 - a. Takes time away from family
 - b. Like / enjoy other interests / hobbies /activities more
 - c. Not enough time
 - d. Takes too much time to prepare for / to go fishing
 - e. Too crowded
 - f. Poor behavior of other recreationists (e.g., other anglers, boaters, jet skiers, etc.)
 - g. No one to fish with / have not been invited
 - h. Health / age
 - i. Lack skills / expertise
 - j. Too far to travel
 - k. Don't know where to go / hard to find good location
 - l. Not enough / poor access to places to fish, including boat ramps
 - m. Don't catch enough fish
 - n. Quality of water / pollution / fish contamination
 - o. Cost of licenses
 - p. Costs of purchasing / maintaining equipment
 - q. Costs or hassles associated with boating, including fuel costs
 - r. License requirements / fishing regulations
 - s. Don't want to go more often
 - t. Other (ENTER OTHER)
 - u. Don't know
- c. (ASK FOR EACH TOP OUTDOOR ACTIVITY THAT IS NOT FISHING AND FOR EACH TOP INDOOR ACTIVITY NAMED IN PREVIOUS SECTION) What are the most important reasons you participate in [ACTIVITY] more than fishing?
 (IF ASKED: Including both freshwater and saltwater fishing.)
 (OPEN-ENDED)
- i. Like / enjoy activity more than fishing
 - ii. Have family / friends who do activity

- iii. Takes less time than fishing
 - iv. To improve skills / expertise
 - v. More successful at activity than fishing
 - vi. Activity more fun than fishing
 - vii. Activity more challenging than fishing
 - viii. Activity more relaxing than fishing
 - ix. To stay in shape / improve health
 - x. Closer to home / less travel
 - xi. More / better opportunities nearby than for fishing
 - xii. Already have equipment / don't have to pay or invest a lot of money
 - xiii. Less expensive than fishing
 - xiv. Fewer hassles than fishing
 - xv. Other (ENTER OTHER)
 - xvi. Don't know
- d. (ASK FOR EACH TOP OUTDOOR ACTIVITY THAT IS NOT FISHING AND FOR EACH TOP INDOOR ACTIVITY NAMED IN PREVIOUS SECTION) Are there any benefits or advantages of participation in [ACTIVITY] instead of fishing? (IF YES: What are they?)
(IF ASKED: Including both freshwater and saltwater fishing.)
(OPEN-ENDED)
- i. Like / enjoy activity more than fishing
 - ii. Have family / friends who do activity
 - iii. Takes less time than fishing
 - iv. To improve skills / expertise
 - v. More successful at activity than fishing
 - vi. Activity more fun than fishing
 - vii. Activity more challenging than fishing
 - viii. Activity more relaxing than fishing
 - ix. To stay in shape / improve health
 - x. Closer to home / less travel
 - xi. More / better opportunities nearby than for fishing
 - xii. Already have equipment / don't have to pay or invest a lot of money
 - xiii. Less expensive than fishing
 - xiv. Fewer hassles than fishing
 - xv. Other (ENTER OTHER)
 - xvi. Don't know
- e. Are there any disadvantages or difficulties associated with fishing that make participating in other activities more attractive than fishing? (IF YES: What are they?)
(IF ASKED: Including both freshwater and saltwater fishing.)
(OPEN-ENDED)
- i. Takes time away from family
 - ii. Takes too much time to prepare for / to go fishing

- iii. Too crowded
- iv. Poor behavior of other recreationists (e.g., other anglers, boaters, jet skiers, etc.)
- v. Lack skills / expertise
- vi. Too far to travel
- vii. Don't know where to go / hard to find good location
- viii. Not enough / poor access to places to fish, including boat ramps
- ix. Don't catch enough fish
- x. Quality of water / pollution / fish contamination
- xi. Cost of licenses
- xii. Costs of purchasing / maintaining equipment
- xiii. Costs or hassles associated with boating, including fuel costs
- xiv. License requirements / fishing regulations
- xv. Don't want to go more often
- xvi. Other (ENTER OTHER)
- xvii. Don't know

VI. Participation in Fishing Programs and Events

- a. Next, I have just a few more questions about your fishing experiences.
- b. How often have you participated in any fishing programs, clinics, lessons, or other instructional activities in the past 5 years?

(IF ASKED: Including both freshwater and saltwater fishing.)

(NOTE: CAN COMPARE TO NUMBER OF DAYS FISHED)

(CHECK ONLY ONE ANSWER)

- i. Often
- ii. Sometimes
- iii. Rarely
- iv. Never
- v. DNR: Don't know
- c. How about any sponsored fishing events or tournaments? (How often have you participated in any in the past 5 years?)

(IF ASKED: Including both freshwater and saltwater fishing.)

(IF ASKED: By sponsored I mean one or more organizations, agencies, or companies provide and conduct the event or tournament.)

(NOTE: CAN COMPARE TO NUMBER OF DAYS FISHED)

(CHECK ONLY ONE ANSWER)

- i. Often
- ii. Sometimes
- iii. Rarely
- iv. Never
- v. DNR: Don't know

VII. Likelihood of and Motivations for Future Fishing Participation

- a. How likely are you to go FRESHWATER fishing in the next 12 months?

(CHECK ONLY ONE ANSWER)

- i. Very likely
- ii. Somewhat likely
- iii. Not at all likely

- iv. DNR: Don't know
 - 1. (IF NOT AT ALL LIKELY OR DON'T KNOW) How about the next 2 years? (How likely are you to go FRESHWATER fishing?)
(CHECK ONLY ONE ANSWER)
 - a. Very likely
 - b. Somewhat likely
 - c. Not at all likely
 - d. DNR: Don't know
 - i. (IF NOT AT ALL LIKELY OR DON'T KNOW) How about the next 5 years? (How likely are you to go FRESHWATER fishing?)
(CHECK ONLY ONE ANSWER)
 - 1. Very likely
 - 2. Somewhat likely
 - 3. Not at all likely
 - 4. DNR: Don't know
- b. How likely are you to go SALTWATER fishing in the next 12 months?
(CHECK ONLY ONE ANSWER)
 - i. Very likely
 - ii. Somewhat likely
 - iii. Not at all likely
 - iv. DNR: Don't know
 - 1. (IF NOT AT ALL LIKELY OR DON'T KNOW) How about the next 2 years? (How likely are you to go SALTWATER fishing?)
(CHECK ONLY ONE ANSWER)
 - a. Very likely
 - b. Somewhat likely
 - c. Not at all likely
 - d. DNR: Don't know
 - i. (IF NOT AT ALL LIKELY OR DON'T KNOW) How about the next 5 years? (How likely are you to go SALTWATER fishing?)
(CHECK ONLY ONE ANSWER)
 - 1. Very likely
 - 2. Somewhat likely
 - 3. Not at all likely
 - 4. DNR: Don't know
 - c. Are there any things that would make you [FISH MORE OFTEN / START FISHING AGAIN]?
(OPEN-ENDED)
 - i. If had more time
 - ii. If friends or family fished

- iii. invitation from a friend or family member
 - iv. child asked to be taken fishing
 - v. if guaranteed more fishing success
 - vi. fishing program, clinic, or lesson
 - vii. fishing event or tournament held nearby
 - viii. low-cost, family tournament held nearby
 - ix. nearby fishing areas had better amenities (e.g., nice dock, restroom, vending machines, etc.)
 - x. nearby fishing areas had Free Fishing days
 - xi. nearby fishing areas were stocked
 - xii. quality of fish was improved
 - xiii. more fish to catch
 - xiv. easier or improved access to places to fish
 - xv. local source of fishing information or tips for area
 - xvi. Less crowded fishing areas
 - xvii. Less distance to travel
 - xviii. If knew where to go
 - xix. If licenses cost less
 - xx. If equipment / maintenance cost less
 - xxi. If costs or hassles associated with boating were less
 - xxii. Other (ENTER OTHER)
 - xxiii. Don't know
- d. How much would each of the following encourage you to fish or fish more often? How about [FACTOR]? (Would this strongly, moderately, or not encourage you to go fishing or fishing more often?)
(IF ASKED: Including both freshwater and saltwater fishing.)
(ADMINISTERED IN RANDOM ORDER)
- i. an invitation from a friend or family member to go fishing
 - ii. if your child or a neighbor's child asked you to take them fishing
 - iii. if you could learn better ways to catch a fish so you'd have more success
 - iv. if a fishing program, clinic, or lesson was held at a local fishing spot
 - v. if a sponsored fishing event or tournament were held nearby
 - vi. if a low-cost, family tournament was hosted near your home
 - vii. if nearby fishing areas had better amenities, such as a nice dock, a nice restroom, and vending machines
 - viii. if nearby fishing areas had Free Fishing days where you would not need a license to fish on certain days of the year
 - ix. if nearby fishing areas were stocked to increase the number of fish caught
 - x. if the quality of fish was improved
 - xi. if there were more fish to catch
 - xii. if access to places to fish was made easier or improved
 - xiii. if there was a trusted local personality or media source that provided regular reports or tips about fishing in your area

- xiv. if you could access a free website or publication that gave lots of fishing tips and information on where and how to catch certain species of fish

(CHECK ONLY ONE ANSWER)

1. Strongly encourage
2. Moderately encourage
3. Not encourage at all
4. DNR: Don't know

VIII. License Purchasing Behavior and Demographics

- a. Next, I have a few questions about fishing licenses.
- b. What was the last year you bought a [STATE OF RESIDENCE] fishing license?
(IF ASKED: A freshwater or saltwater fishing license.)
(IF ASKED: Regardless of whether you went fishing.)
(ENTER YEAR)
- c. How many of the past 5 years have you bought a [STATE OF RESIDENCE] fishing license?
(IF ASKED: A freshwater or saltwater fishing license.)
(IF ASKED: Regardless of whether you went fishing.)
(ENTER NUMBER OF YEARS)
- d. How likely are you to purchase or renew your fishing license within in the next 12 months?
(CHECK ONLY ONE ANSWER)
 - i. Very likely
 - ii. Somewhat likely
 - iii. Not at all likely
 - iv. DNR: Don't know
- e. What was the last year you bought a NON-RESIDENT fishing license in another state?
(IF ASKED: A freshwater or saltwater fishing license.)
(IF ASKED: Regardless of whether you went fishing.)
(ENTER YEAR)
- f. Great! We are just about through. The final questions are for background information and help us analyze the results.
- g. Not including yourself, how many people 18 and OLDER do you have living in your household?
(ENTER NUMBER)
- h. How many children, age 17 or YOUNGER, do you have living in your household?
(ENTER NUMBER)
- i. What is your marital status?
(CHECK ONLY ONE ANSWER)
 - i. Married
 - ii. Single
 - iii. Divorced
 - iv. Widowed

- v. DNR: Refused
- j. Do you consider your place of residence to be a large city or urban area, a suburban area, a small city or town, a rural area on a farm or ranch, or a rural area NOT on a farm or ranch?
(CHECK ONLY ONE ANSWER)
 - k. Large city or urban area
 - l. Suburban area
 - m. Small city or town
 - n. Rural area on a farm or ranch
 - o. Rural area NOT on a farm or ranch
 - p. DNR: Don't know
 - q. DNR: Refused
- r. Which of these categories best describes your total household income before taxes last year?
(READ LIST; CHECK ONLY ONE ANSWER)
 - i. Under \$20,000
 - ii. \$20,000-\$39,999
 - iii. \$40,000-\$59,999
 - iv. \$60,000-\$79,999
 - v. \$80,000-\$99,999
 - vi. \$100,000-\$119,999
 - vii. \$120,000 or more
 - viii. DNR: Don't know
 - ix. DNR: Refused
- s. What races or ethnic backgrounds do you consider yourself, and please mention all that apply?
(CHECK ALL THAT APPLY)
 - i. White or Caucasian
 - ii. Black or African-American
 - iii. Hispanic or Latino (includes Mexican, Central American, etc.)
 - iv. Native American or Alaskan native or Aleutian
 - v. Native Hawaiian
 - vi. Middle Eastern
 - vii. East Asian (from Japan, China, Korea, Philippines, etc.)
 - viii. South Asian (from India, Pakistan, Bangladesh, etc.)
 - ix. African (NOT African-American)
 - x. DNR: Other (ENTER OTHER)
 - xi. DNR: Don't know
 - xii. DNR: Refused
- t. May I ask your age?
(ENTER AGE)
- u. Gender (OBSERVED, NOT ASKED)