

# Actionable Strategies for Angler Recruitment, Retention, and Reactivation

Final Report



Recreational Boating and Fishing Foundation  
Responsive Management

2019

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RECREATIONAL  
BOATING & FISHING  
FOUNDATION



 **RESPONSIVE  
MANAGEMENT**

# **ACTIONABLE STRATEGIES FOR ANGLER RECRUITMENT, RETENTION, AND REACTIVATION**

## **FINAL REPORT**

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### **Responsive Management**

Mark Damian Duda, Executive Director  
Martin Jones, Senior Research Associate  
Tom Beppler, Senior Research Associate  
Steven J. Bissell, Ph.D., Qualitative Research Associate  
Andrea Criscione, Senior Research Associate  
Patrick Doherty, Research Associate  
Gregory L. Hughes, P.E., Research Associate  
Caroline Gerken, Survey Center Manager  
Alison Lanier, Business Manager

130 Franklin Street  
Harrisonburg, VA 22801  
540/432-1888  
E-mail: [mark@responsivemanagement.com](mailto:mark@responsivemanagement.com)  
[www.responsivemanagement.com](http://www.responsivemanagement.com)

### **Recreational Boating and Fishing Foundation**

Frank Peterson, Jr., President/CEO  
Stephanie Hussey, State R3 Program Director  
Dave Chanda, Vice President, State Agency Engagement  
Jim Hemenway, Senior Vice President, Finance and Administration  
Joanne Martonik, Senior State Marketing Manager

Although RBBF partnered with Responsive Management for this report and the Association of Fish and Wildlife Agencies provided funding for it, any errors in the report are the sole responsibility of Responsive Management.

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## EXECUTIVE SUMMARY

The purpose of this project is to determine how fishing in the U.S. can stay relevant in a changing society. In 2016 (the year of the most recent *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* [hereinafter referred to as the *National Survey*] measuring nationwide fishing participation), 35.8 million Americans 16 years old and older went fishing. Because many people fish in one year but not in another, an even greater number of Americans participate over a 5-year period. Overall, fishing participation in the U.S. has increased since 1955, the first year the U.S. Fish and Wildlife Service and the U.S. Census Bureau conducted the *National Survey*, when 14.8 million Americans fished. The increase in participation was not steady, however. A decline in fishing participation began in 1991 and continued until 2006, after which participation in fishing once again began to increase.

The decline in fishing participation in the 1990s caused widespread concern throughout the fish and aquatic resource management community. This concern was due to the fact that anglers are an important constituency for conservation and aquatic resources as well as the primary source of funding for fisheries conservation and management. Substantial funding for aquatic resource management is derived from fishing license sales; an excise tax on fishing-related equipment such as rods, reels, and related tackle; and a tax on motorboat and small engine fuel. The Recreational Boating and Fishing Foundation (RBFF) was born in 1998 out of the concern over declining fishing participation.

Since the inception of RBFF, substantial research has been conducted to guide the development of effective programs and inform business decisions designed to increase Americans' awareness of and participation in fishing. RBFF has sponsored an array of studies over the years concerning Americans' attitudes toward fishing in general; trends in fishing participation among various demographic groups; angler churn; motivations for and barriers to fishing participation; recruitment, retention, and reactivation (R3) strategies and tactics; and more. In addition to facilitating much of this critical research, RBFF has helped increase fishing participation in the United States through the creation of programs and marketing campaigns based on a solid foundation of research.

One early study, initiated in 1992 and completed in 1995, was *Factors Related to Hunting and Fishing Participation in the U.S.* (Responsive Management, 1995). Another such study, *The Future of Fishing in the United States: Assessment of Needs to Increase Sport Fishing Participation* (Responsive Management, 1999), was conducted to assist RBFF, the Sportfishing and Boating Partnership Council, state fish and wildlife agencies, the fishing industry, and nongovernmental organizations keep current anglers fishing and encourage non-anglers to try fishing. *The Future of Fishing* report helped guide angler R3 efforts for many years and outlined broadscale R3 strategies, such as the development of national campaigns to increase interest in fishing; identified themes and messages for these campaigns to focus on; explored issues related to churn; examined satisfactions and dissatisfactions with fishing; and outlined strategies to reach under-represented populations such as women, Latinos, and blacks/African-Americans. Through this and other research, a strategic plan for the National Outreach and Communication Program, as required by the Sportfishing and Boating Safety Act of 1998, was developed. This plan was based on extensive input from the fisheries management community facilitated by researchers Dr. Bob Ditton of Texas A&M University, Mark Damian Duda of Responsive Management, and Dr. Tony Fedler of the University of Florida.

Much has been accomplished since the inception of RBFF and these original planning efforts, including much needed additional targeted research, the acknowledgment of the importance of R3 by the professional fisheries management community, and the launch of major outreach campaigns to increase Americans' awareness of and participation in fishing. However, America over the past two decades has changed demographically, attitudinally, and technologically. These major changes demand new research to improve the R3 community's understanding of current and prospective anglers and to update R3 strategies and initiatives. With this in mind, RBFF and Responsive Management undertook this project to fulfill a straightforward but challenging objective: to determine how fishing can stay relevant in a changing society.

In addition to providing an updated look at motivations, barriers, and interests among active, sporadic, lapsed, and non-anglers, this study examines how social media platforms and smartphone apps can accomplish the same basic things that were necessary for increasing fishing participation decades ago (e.g., sparking interest and facilitating invitations and reminders). This study also examines angler R3 needs, priorities, and constraints from the agency perspective, as R3 specialists today require talents and skills that in many cases were either irrelevant or nonexistent 20 years ago.

The methodology for this project included a scientific, probability-based nationally representative survey of more than 3,000 general population U.S. residents (including supplemental web-based oversamples of blacks/African-Americans, Latinos, and Asian-Americans) and two series of focus groups, one with general population residents in a diverse set of locations across the country and the other with fish and wildlife agency employees who specialize in angler R3. This data collection was used to identify actionable strategies to increase fishing across the U.S. The findings and recommendations discussed in this report are based on the new research with U.S. residents as well as the implications of major demographic, attitudinal, and technological changes that have occurred over the last two decades and will shape the U.S. in the decades to come.

When examining the findings contained in this report, note that the survey conducted as part of this project asked about participation in fishing in a 5-year timeframe. This is longer than the 1-year timeframe used in the *National Survey*, which only looks at fishing participation in a single year.

The Executive Summary first presents the most salient findings of all the research. It then presents the recommendations based on the extensive research. The full report is organized around the several types of data gathering that were conducted. Chapter 1 starts things off with a review of previous studies pertinent to this project. Chapter 2 details the surveys that were conducted of the general population and of traditionally under-represented audiences. Chapter 3 presents the findings of the focus groups with general population groups (i.e., consumers), and Chapter 4 discusses the findings of the focus groups with agency professionals. Chapter 5 has a series of one-page summary sheets of various target markets; this chapter is a continuing resource for the development of outreach to any of the various groups detailed in this report. The full recommendations are included in Chapter 6. The report then concludes with the methodology in Chapter 7 and the sources used in Chapter 8.

## FINDINGS

### Broad Demographic Trends

- Five key demographic trends will have important implications on fishing participation in the years to come:
  1. America's population is increasing dramatically: by 2045 the population of the U.S. will have increased by more than 40% since 2000.
  2. America is becoming more urbanized.
  3. The American general population is becoming older: a few years after 2050 there will be more individuals over 65 than under 18. There are already more U.S. residents over 65 than under 5.
  4. The American general population is becoming more diverse: the Hispanic population is expected to more than double by 2060 while today's "minorities" will be a majority (almost 60%) of the U.S. population.
  5. The number of foreign-born individuals is increasing: at the beginning of the 1960s, 1 in 20 people living in the U.S. were foreign-born. Today, approximately 1 in 8 are foreign-born. By 2050 approximately 1 in 5 will be foreign-born.  
(Note that all of the above comes from the research review.)
- A recent demographic analysis of current anglers suggests that the core angler cohort will soon begin to age out of buying fishing licenses, and substantial decreases in fishing license purchasers are expected to begin as early as 2022. (Research review.)
- Despite the above, the most recent *National Survey* in 2016 shows an increase in fishing participation, particularly over 2006 (a year that had relatively low angler numbers). There were 29.95 million anglers in 2006, compared to 35.75 million in 2016, according to the *National Survey* (and using a 1-year timeframe). (Research review.)
- Many R3 professionals recognize that shifting demographics and changing motivations and interests among younger generations will require agencies to be more attuned to the customer needs and expectations of these segments of the population. As an example, some R3 professionals pointed out that agencies must make the planning process for fishing outings easier for customers. (Professionals focus groups.)

### Climate Change

- A warming climate and accompanying sea level rise will affect fishing and fisheries in several ways, including a reduction in trout and salmon habitat (and, ergo, their populations), a salinization of some formerly fresh waters in coastal areas, an increasingly favorable climate for several already-damaging invasive species, and more variable water levels in many reservoirs and lakes. There is also expected to be lower fish populations for many species that cannot adapt quickly enough to the changing habitat and water temperatures. (Research review.)

### Americans' Fish and Wildlife Values and Attitudes Toward Fish and Wildlife Agencies

- Recreational fishing enjoys strong approval from the public: 93% of Americans approve of legal recreational fishing, while only 3% disapprove. It is worth noting, however, that approval of fishing varies depending on the motivation for fishing and the methods used to fish. Furthermore, America's wildlife values are changing. The

American population is moving away from more traditional or utilitarian values to more mutualistic values, and this may affect their attitudes toward fishing and the work of fish and wildlife agencies. (Research review.)

- Despite the country's ongoing changes, Americans have not lost sight of the crucial role of fish and wildlife agencies. Overall, 9 out of 10 American adults agree that fish, wildlife, and their habitat require active management to ensure healthy populations. Further, roughly 4 out of 5 American adults agree that their state agency plays an important role in managing fish and wildlife and their habitat. Finally, about three-quarters of American adults agree that the work of their state's fish and wildlife agency is relevant to them, although people tend to rate the work of the agency higher than they rate the relevancy of the agency to them—the next bullet details findings about this. (Research review.)
- Many people feel that the work of their state fish and wildlife agency is important, even if at the same time they do not feel that the work affects them. This is an obvious disconnect, but addressing this disconnect is an avenue for the agencies to make themselves more relevant to the public. Outreach needs to link the importance to relevance. (Research review.)

### **R3 Professionals' Attitudes Towards the Recreational Boating and Fishing Foundation and Its Services**

- RBFF is widely commended as an organization among state fish and wildlife agency professionals. Specific resources cited as particularly beneficial include RBFF's marketing workshop, its distribution of best practices and lessons learned, and its toolbox of images for marketing campaigns. (Professionals focus groups.)
- R3 professionals have a need for more region-specific images: it was suggested that many of the stock images available through RBFF are focused on east coast locations. (Professionals focus groups.)
- RBFF's grant program is highly valued. (Professionals focus groups.)
- Many R3 professionals would like the grant cycle to be extended—the current timeline was often described as too compressed, and some observed that the timeline for project deliverables is too rigid. (Professionals focus groups.)

### **Agency Attitude Toward R3 and a Shared Agency Vision**

- The extent to which agencies prioritize angler R3 appears to vary considerably. (Professionals focus groups.)
- Some agencies lack a cohesive "shared vision" in terms of angler R3. (Professionals focus groups.)
- For some agencies, angler R3 is not as much of a priority as hunting R3—relatively stable participation in fishing (compared to precipitous declines in hunting participation) appears to make the need for angler R3 programs less urgent than the need for hunter R3 programs. (Professionals focus groups.)
- The research suggests that, while leadership in many agencies recognize the need for angler R3 programs, some agencies may still be slow to develop and implement programs that focus exclusively on angler R3. (Professionals focus groups.)

- Given finite funding, staffing, and other resources, some agencies continue to have difficulty deciding whether to prioritize recruitment, retention, or reactivation. (Professionals focus groups.)
- A continued lack of funding is a persistent issue affecting many angler R3 programs. (Professionals focus groups.)
- Some agencies lack a dedicated social media coordinator—social media upkeep and content sometimes falls to R3 coordinators, thereby adding an additional responsibility and reducing time for other (more hands-on) initiatives. (Professionals focus groups.)
- Persistent challenges affecting angler R3 in some agencies include inflexible procurement and contracting policies and difficulties with (or lack of) information technology staff. Specifically, agencies are sometimes prevented from purchasing needed products, programs, or systems because they are locked into existing contracts with vendors. In other cases, agency IT staff are nonresponsive or slow to address data requests from angler R3 coordinators (this can sometimes affect the ability of coordinators to obtain data necessary for the development of plans or programs). (Professionals focus groups.)

### Agency R3 Program Evaluation

- Some agencies do not or are not regularly evaluating the effectiveness of their angler R3 programs. (Professionals focus groups.)
- Some agencies continue funding and implementing angler R3 programs whose effectiveness is questionable or has not been documented through systematic evaluations—these programs often continue because of inertia or because they are “pet projects.” (Professionals focus groups.)
- Many agencies view the Outdoor Recreation Adoption Model as a useful tool for categorizing and inventorying their existing programs. (Professionals focus groups.)

### Participation in Outdoor Activities, Including Crossover Participation

- Crossover refers to participants of one activity who also go fishing. The greatest crossover participation is among those who go boating of any kind, but particularly motorboating, as well as those who go camping. These groups represent the lowest hanging fruit, so to speak, as they show the greatest propensity to fish. Efforts should be directed toward *retention* and *reactivation* of participants of these other activities who also fish. (Survey research.)
- On the other hand, only about half of hikers and bicyclers go fishing, and a little less than half of runners/joggers go fishing. However, these groups (hikers, bicyclists and runners/joggers) actually represent the largest target markets in sheer numbers for *recruitment*, with roughly a quarter of the population doing the given activity but *not* fishing. (Survey research.)
- The largest target market of outdoor recreationists for recruitment combined with the greatest propensity to fish consists of campers: 53% of residents overall went camping in the previous 5 years, and 63% of all campers went fishing—targets for *retention*. Note that 17% of U.S. residents go camping but do not fish, and this represents a fairly large group (about 1 in 6 adult U.S. residents) for *recruitment*, particularly because it is a good chance that at least one of their fellow campers goes fishing. (Survey research.)

- For targeted marketing to those who do the given activities, such as camping or hiking, see Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity. (Survey research.)
- In the supplemental survey, Latinos had a slightly (but statistically significant) higher rate of fishing than did blacks/African-Americans or Asian-Americans ( $p \leq 0.05$ ). Note that this survey looked at a 5-year timeframe; the *National Survey* (USFWS/US Census Bureau, 2016) uses a 1-year timeframe. These differences in timeframes help explain differences in the two surveys regarding which group fishes the most. (Survey research.)
- While hunting and fishing participation both broadly declined over the latter part of the 20<sup>th</sup> century, fishing participation has seen a healthy increase in recent years. (Research review.)
- There were more than twice as many anglers in 2016 as there were at the time of the first *National Survey* in 1955; the rate of fishing participation among Americans in 2016 (14%) is also higher than it was in 1955 (12%). (Research review.)

### Interest in Fishing and Characteristics of Fishing Participants

- More than a third of U.S. residents say that they are *very* interested in fishing. (Survey research.)
- Interest in outdoor recreation in general, as well as fishing specifically, is higher than actual participation. (Consumer focus groups.)
- Those who are associated with being *very* interested in fishing include the following groups (this is not meant to describe a single person but instead indicates the groups that have a higher likelihood of being very interested in fishing): boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Survey research.)
- The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This examination now drills down to look only at those who were very interested *but who did not go*. Those who were very interested in fishing *but did not go* in the past 5 years (i.e., had latent demand) are associated with being ethnically Latino; being ethnically black/African-American; being young; living in a suburban area; having children in the household; and residing in the Northeast region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)
- Active anglers are associated with the following: boating of any kind, but particularly motorboating; camping; having children in the household; being in the middle age group; and living in a rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)
- Sporadic anglers are associated with the following: being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category. (Note that the characteristics listed

above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)

- **Lapsed anglers are associated with the following: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **Non-anglers are associated with the following: being ethnically black/African-American; being female; living in a large city or urban area; being in the older age category; not having children in the household; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **Freshwater fishing predominates over saltwater fishing: 6 out of 7 anglers go freshwater fishing, while just more than a third go saltwater fishing (some do both). Higher income anglers and urban anglers are particularly associated with saltwater fishing. (Survey research.)**
- **The majority of anglers fish from a boat at least some of the time, more often motorboats than boats that are paddled. (Survey research.)**
- **Fishing is predominantly a social activity: nearly all anglers go fishing with others at least some of the time. Nonetheless, about a third sometimes fish alone. While family predominates as a source of fishing companions, there are substantial numbers of anglers who fish with friends, sometimes at the exclusion of family. (Survey research.)**
- **Outdoor recreation, including fishing, is often associated with family, tradition, and quality time among those who participate. (Consumer focus groups.)**
- **Social interaction and quality time with family and friends is a motivating factor to plan outdoor recreation activities in advance. (Consumer focus groups.)**
- **Fishing is more often its own activity rather than part of other activities. (Survey research.)**
- **While much fishing is done as a primary, sole activity, it is nonetheless important to note that there is a demand in having fishing connected with other activities, as many consumers, especially less avid or new anglers, felt that they might be more likely to participate that way. (Consumer focus groups.)**
- **Fishing continues to be mostly a local activity, with most anglers participating close to home. Typically, anglers travel no more than a half-hour to get to their fishing spot. Those who exclusively fish with others tend to travel a bit farther than those who sometimes fish alone. (Survey research.)**

### **Motivations for Fishing**

- **The greatest prominence among reasons to fish continue to be aesthetic and social reasons: to be out in nature and see scenery, to be with family and friends, and to relax. (Survey research.)**

- The most effective things to encourage fishing include those same aspects—nature, scenery, family, and friends—but also include being asked to go fishing. (Survey research.)
- Focus group participants focused on children and health as the primary motivations for participating in outdoor recreation activities, including fishing. (Consumer focus groups.)

### **Constraints to Fishing Participation**

- Among active anglers, access, litter, and water quality are important dissatisfactions over which agencies and fishing industry have some control. (Survey research.)
- In the focus groups, access and water quality were important issues negatively impacting interest and participation in fishing. (Consumer focus groups.)
- Some R3 professionals perceive fishing access to be as important to fishing participation as the availability of angler R3 programs. (Professionals focus groups.)
- The most important reasons that sporadic anglers had not fished in the previous 5 years were not having anybody to fish with and having health problems. (Survey research.)
- The perception that fishing is boring or requires too much patience is negatively impacting interest in participation and is a common complaint among many non-anglers. (Consumer focus groups.)
- The perception that fishing is difficult or requires in-depth knowledge, preparation, and learning is negatively impacting interest in participation. (Consumer focus groups.)

### **License Purchasing Preferences**

- About 1 in 7 active anglers have never purchased a fishing license. While there are several reasons an individual can legally fish without a license, the collective results of this study indicate that there is a substantial amount of fishing without a license when a license is legally required. (Survey research.)
- Angler groups that have a higher propensity to fish but *not* purchase a license include Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)
- In the focus groups, it was clear that many potential and new fishing participants lack even basic information on fishing license requirements. (Consumer focus groups.)
- Among fishing license purchasers, about 1 in 6 purchased their most recent license online. These online purchasers are associated with being in the higher education bracket; young; from the Northeast region; and in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)
- About two thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store (even among newer anglers—those who started within the

previous 10 years—a bait store is the most common place of last purchase). (Survey research.)

- **Groups associated with purchasing their licenses in stores/bait shops are Latinos; residents of the West region; those in the lower income category; those in the middle age bracket; females; residents of a small city or town; and those without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **The speed and ease of purchasing are the top reasons for preferring online fishing license purchasing. (Survey research.)**
- **For in-store fishing license purchasers, having a hard-copy license, being in the store anyway, and the ease of purchase are the top reasons for preferring in-store purchasing. For some, perhaps a clerk's help makes for an easier purchase than methods without such help. (Survey research.)**
- **There are four major possible license renewal options that agencies can implement; the most popular would be an email reminder that includes a link to the license purchase webpage. In the middle tier are a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage. The least popular would be through an auto renewal service attached to one's credit card, although it may be the most efficient and effective and should always be an option. (Survey research.)**
- **Those who would be very likely to renew their license through an email reminder that includes a link to the license purchase webpage are associated with being female; living in the Northwest region; being in the higher income category; being in the middle age group; and living in a suburban or rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **While email is widely perceived by professionals to be the most cost-effective way to communicate with anglers, a number of agencies face challenges related to emails. In some cases, R3 professionals cannot even run basic data queries of their license databases. Additionally, the inability (or imperfect ability) of agencies to collect customer email addresses prevents or hinders follow-up and continued contact with license purchasers and/or program participants. (Professionals focus groups.)**
- **Those who would be very likely to renew their license through an app on their phone are associated with being ethnically Latino; living in a suburban area; being in the middle age group; having children in their household; engaging in running/jogging; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **Those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage are associated with being ethnically Latino; having children in the household; being in the higher income category; being in the younger age group; participating in boating; and being from the West region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**

- Those who would be very likely to renew their license through an auto renewal service attached to their credit card are associated with living in a large city/urban area; being in the younger age category; being ethnically black/African-American; having a household income in the higher category; participating in running/jogging; having at least a bachelor's degree; and living in a suburban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)

### **Hearing and Seeing Information About Fishing**

- Just under half of U.S. residents say that they heard or saw something about recreational fishing in the previous 5 years. They are associated with boating of any kind; participation in any other outdoor recreation, particularly hiking; having a household income in the upper category; having at least a bachelor's degree; being male; being ethnically white; and being in the older age category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)
- Other than from friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). A second tier of sources consists of social media and retailers—the next most common sources of information about recreational fishing. (Survey research.)
- While social media websites and apps (especially Facebook and Instagram) are acknowledged by agency professionals as important ways for agencies to stay in touch with anglers and the wider public, some agencies avoid using social media to a certain extent for fear of losing control of the conversation—this was said to occur when comment sections devolve into complaints or debates about regulations or agency policies. (Professionals focus groups.)

### **Familiarity With State Agency Websites**

- About a quarter of U.S. residents are very or somewhat familiar with their state agency's website. Site visitors most often seek license/permit/tag information, regulations and season dates, and fishing locations. (Survey research.)

### **Outreach in General**

- About a third of U.S. residents are interested in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth. (Survey research.)
- Almost all American adults own a cellphone of some kind, and 4 out of 5 own a smartphone. (Research review.)
- Rural Americans, compared to urban and suburban Americans, are more likely to rely on a smartphone as their sole means of Internet access. (Research review.)
- A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so) or had tried other self-teaching methods to learn about fishing (20%). (Survey research.)

- **Those groups most likely to watch online videos to learn about fishing are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area. (Survey research.)**
- **Rural Americans, compared to urban and suburban Americans, go online the least (although a still-robust 76% of rural people go online; however, the percentage is even higher among suburban and urban residents). (Research review.)**
- **Males and younger people are more likely than their counterparts to do other self-teaching methods. (Survey research.)**
- **Outreach in the form of direct contact from the state agency, broadly defined to include email or in-person contact (by a Game Warden, for instance), reaches about 1 in 7 residents of the U.S. (Survey research.)**

### **Outreach to Under-Represented Groups**

- **Among Latino adults, there is a mix of fishing participation and interest levels. Latino adults who have an interest in fishing but are not currently active may be unlikely to seek assistance and resources to fish on their own. Latino adults perceive numerous obstacles to fishing that seem to outweigh interest. (Consumer focus groups.)**
- **Some R3 professionals feel that the perceived lack of relevance of fishing to certain audiences (especially females, Latinos, youth, and residents of urban areas) is as detrimental to fishing participation as the availability of angler R3 programs. (Professionals focus groups.)**
- **In line with the above, females, Latinos, youth, and urban residents are commonly viewed as priority target markets for angler R3. (Professionals focus groups.)**

### **Mentoring and Being Mentored**

- **Anglers are engaging in mentoring: about two thirds of anglers are passing along the tradition, engaging in mentoring at some time. Those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **The research suggests that family, tradition, and fishing participation as a youth are primary influences on initial interest in fishing as an adult. (Consumer focus groups.)**
- **Millennials are interested in fishing, but they need assistance and resources that they may be unlikely to seek on their own. (Consumer focus groups.)**
- **Early success in fishing perpetuates more interest, enthusiasm, and participation in the activity. (Consumer focus groups.)**

### **Purchase of Fishing Equipment**

- **A little over half of U.S. residents bought outdoor recreation equipment of some kind in the previous 5 years, and fishing equipment was bought by about a quarter of U.S. residents. (Survey research.)**

- **Fishing equipment purchasers are associated with participation in boating (particularly motorboating); participation in camping; having children in the household; living in a rural area; being in the middle age category; participation in bicycling and hiking; being male; and living in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **Most new fishing equipment is purchased in a store. Approximately three quarters of those who purchased new fishing equipment bought all of it in a store, while about a quarter bought some of it online. Most shoppers do at least *some* of their purchasing in a store, as a very low percentage—2% at most—purchase *all* their fishing equipment online. (Survey research.)**
- **The following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (Survey research.)**
- **Rods, reels, and lures/flies are the most common categories of purchases. A second tier consists of lines/sinkers and creels/tackle boxes/bags. (Survey research.)**
- **The most important influencers on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order. (Survey research.)**

### **Partnerships With Non-Governmental Organizations (NGOs)**

- **Given agency budget constraints in many states, there is a desire among some R3 coordinators for agencies to explore or leverage partnerships with NGOs and the fishing industry. (Professionals focus groups.)**

## **MAJOR OBSERVATIONS AND RECOMMENDATIONS**

### **Demographic and Societal Trends and Implications**

There are seven major demographic and societal trends currently taking place that will affect the future of fishing in the United States. Each of these will have an important impact on societal interest and support for fishing as well as the recruitment, retention, and reactivation of anglers.

1. America's population is increasing dramatically: by 2045 the population of the U.S. will have increased by more than 40% since 2000.
2. America is becoming more urbanized.
3. The American general population is becoming older: a few years after 2050 there will be more individuals over 65 than under 18.
4. The American general population is becoming more diverse: the Hispanic population is expected to more than double by 2060 while today's "minorities" will be a majority (almost 60%) of the U.S. population.
5. The number of foreign-born individuals is increasing: at the beginning of the 1960s, 1 in 20 people living in the U.S. were foreign-born. Today, approximately 1 in 8 are foreign-born. By 2050 approximately 1 in 5 will be foreign-born.
6. Americans' wildlife values are changing. The American population is moving away from more traditional or utilitarian values to more mutualistic values. People who hold mutualistic values believe fish and wildlife are part of our social network and that we should live in harmony with them.
7. Important angler cohorts are aging out of buying fishing licenses, and substantial decreases in fishing license buyers are expected to begin as early as 2022.

These trends have some important implications for fishing, which are detailed in the following sections of the report. Some of the important implications from the above demographic and societal trends include the following:

- **Agencies must continue to support and encourage the expansion of urban fishing programs. Urban fishing programs work. The Iowa Department of Natural Resources' urban fishing program has been a major success in recruiting anglers in Iowa and is but one example of the importance of these programs (Responsive Management, 2019a). Urban fishing programs are vital, as they bring the fishing experience directly to growing populations of Americans, enhance access to fishing opportunities to minorities living in urban areas, and enhance state fish and wildlife agencies' relevancy by expanding programs and services to previously under-represented audiences. Urban programs will necessarily be different than fishing programs for traditional audiences. Research is encouraged to better understand specifically what works and what does not work in fostering fishing participation among urban residents. Research in this area will be an important investment for the future of fishing in a changing America.**
- **Agencies, NGOs, and industry groups must continue using models and images of minorities. Fostering Latino and black/African-American spokespersons and influencers for fishing will be time and resources well spent in planning for the future and again making state fish and wildlife agencies more relevant to a changing America.**

- **The fishing community must begin planning for a drop in traditional license purchasers as key cohorts begin to age out of fishing. The era of taking rural white males as a given constituency for fishing license sales is over, as this previously taken-for-granted group for participation and license sales gets older and declines as a percentage of the overall demographic make-up of America. Efforts to retain this group well after they no longer need to purchase a license as well as encouraging this group to become avid mentors to others in order to pass on the tradition has become a necessity, not a luxury. While new programs for new non-traditional audiences are critical, the base angler of the past 50 years should not be taken for granted, and new ways to continue having this group engaged are critical. This base angler group and their needs must be an integral part of retention and reactivation programs.**
- **In the past, social constraints (work and family obligations, age- and health-related issues, etc.) have always been more of an impediment to fishing than resource-related constraints. However, with increased urbanization of the country, access issues will be exacerbated and may result in resource constraints becoming as important as social constraints—in effect, a twofold impact of impediments to fishing. Access to fishing locations must become one of the most important pieces of information provided to anglers. Access should be an important centerpiece of information and education efforts, and any communications programs designed to recruit, retain, and reactivate anglers must include detailed information on access. In addition to enhancing information on fishing access, a renewed commitment by the fishing community must be made to keeping access points and fishing locations clean and litter free. Anglers and those expressing an interest in going fishing are highly cognizant and sensitive to trashed out fishing access locales.**
- **Americans are becoming less utilitarian and more mutualistic. In the future, it will be more difficult to promote fishing for utilitarian reasons. Instead, it will be more important to emphasize the conservation, naturalistic, and social benefits of fishing. Additionally, the fishing community may increasingly be obligated to defend the humaneness of fishing. While public approval of fishing today remains high, America's changing values may impact the current public perception of fishing.**

### **The Importance of the Recreational Boating and Fishing Foundation**

Hunting and fishing both broadly declined over the latter part of the 20<sup>th</sup> century. However, while hunting participation continues to fall, fishing participation has seen a healthy increase of late. Further, awareness of fishing opportunities has increased among the American population. While it would be difficult to establish a direct causal link between the increase in fishing participation in the U.S. and the work of RBFF, there is certainly reason to note the connection. In fact, a recent study by Southwick Associates (2019) tied increases in fishing participation in various states to R3 efforts linked to RBFF.

By all quantifiable measures, RBFF's efforts over the past decade have been a success. In the 1999 report, *The Future of Fishing in the United States: Assessment of Needs to Increase Sport Fishing Participation* (Responsive Management, 1999), numerous strategies and recommendations were put forth based on extensive research. Based on that research and additional research from the academic community and RBFF, as well as a strategic plan developed for the Sportfishing and Boating Partnership Council, the fishing community has reaped the rewards of increased awareness among the American public of fishing opportunities

and of fishing as an activity worth pursuing. These benefits include an overall increase in fishing participation beginning in 2006 and documented by the *National Survey*.

Additionally, a major finding from this study, which included focus groups with agency R3 professionals, was the importance of RBFF in assisting states with their R3 efforts. Further, RBFF was lauded for providing valuable research and broadscale marketing and communications guidance to states and for the professionalism of RBFF staff in assisting states with R3 programs. Finally, this research study documented that Latinos, compared to blacks/African-Americans and Asian-Americans, are significantly more likely to have participated in fishing over the past 5 years. This finding is especially noteworthy in light of RBFF's recent *Vamos A Pescar™* campaign, which specifically targets Latinos for fishing participation. Again, while the study did not establish a direct cause-and-effect link between the campaign and fishing participation among Latinos, the correlation is noteworthy nonetheless. With this success noted, RBFF and the fishing community are now confronted with new challenges outlined in this report, the main challenges being the changing demographic and social landscape in the U.S. Overall the results of this study suggest that RBFF should continue on its current successful trajectory but with continuous improvement as suggested in this report.

### **Target Outdoor Recreationists**

Interest in fishing varies among Americans. Crosstabulations of the survey data show that important target markets include those who participate in other outdoor recreation, particularly boaters (including those who use motorized boats, canoes, kayaks, paddleboards, and other nonmotorized watercraft), campers, runners/joggers, bicyclists, and hikers. Outdoor recreationists are an important target market, as these individuals are already outdoors and have a proven interest in nature-based activities. They are also more easily targeted than wide-ranging segments of the population such as “females” or “suburban residents.”

### **Other Important Target Markets**

Other markets that show high levels of interest in fishing include males, rural residents, residents of the southeast, and Latinos.

### **Fishing Without a License**

The research for this study indicates that a substantial number of Americans who fish do not buy a license. While not everyone who fishes is required to buy a license, the study results suggest that there are people who *should* be buying licenses but do not. This finding has numerous implications. First is the substantial loss of revenue to state fish and wildlife agencies as a result of these lost license sales and the accompanying loss of tax revenue that is allocated based on states' license sales.

The second implication is the lost connection between the angler and the state fish and wildlife agency. Additionally, it might be reasonable to expect that, if a segment of the angling population is choosing to forgo the purchase of a required license, other laws that impact the resource may also be routinely broken. Finally, conservation law enforcement personnel have indicated that, besides being uninformed, some people who fish without a license do so because they feel that they will not be caught. There is some indication that law enforcement personnel feel that issuing citations is not as high a priority as it once was because they think that courts are unlikely to take the violation seriously, according to personal communications the researchers have had at National Association of Conservation Law Enforcement Officers' events. This

suggests a need for increased education among general population residents on the importance of purchasing a license and increased awareness throughout the court system of the purpose and significance of fish and wildlife laws.

Fishing without a license appears to be most pervasive among Latinos; blacks/African-Americans; residents of large cities/urban areas; those 18 to 34 years old; residents of the Northeast; females; and those with children under 18 years old. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

Clearly, new and enhanced communications programs are necessary to increase awareness of the license requirements as well as the importance of purchasing a license for conservation purposes. The purchase of a fishing license needs to be re-framed not as simply another government fee or regulation but an act of conservation and environmental responsibility. Finally, additional research needs to be undertaken to better understand why so many people fish without a license, as well as the most effective communications, enforcement, and regulatory strategies to address this detrimental behavior.

### **Campaigns and Reminders**

Email campaigns and renewal notices via email are important and will continue to be effective ways to retain and reactivate anglers. It appears that most anglers welcome these emails. However, replicating this method via apps and texts should be carefully considered, as many anglers feel these methods are too intrusive. In the survey, anglers were particularly averse to auto-renewal services attached to their credit card (although it should still be an option offered).

### **Purchasing Preferences**

While online fishing license purchases will become increasingly common (because newer anglers are a little more likely to prefer online purchasing, compared to more established anglers), it is important to recognize that, today, anglers still prefer to purchase their licenses in stores by a 2 to 1 margin. The research indicates that many anglers prefer to buy a license in a store because they are there anyway purchasing other fishing products; other important reasons for this preference include the fact that many anglers prefer to have a hard copy of the license, and that many desire the assistance of a store employee of whom they can ask questions. A further underlying reason is simply that many anglers have always purchased their fishing license in a store and have come to view the experience as a sort of time-honored tradition. Electronic purchases are appealing to agencies because of the marketing opportunities they offer. While many agency and store employees might prefer that anglers purchase their licenses online (for convenience, streamlining of the process, etc.), it must be recognized that stores remain the preferred location of license purchases for many anglers.

### **Climate Change**

- **The fishing community will need to adapt to changes in fisheries locations, timing of fish lifecycles, and other effects of climate change on fisheries. In particular, access to fisheries will change as the fisheries themselves change.**

Both the warming climate and the accompanying sea level rise will affect fishing and fisheries in several ways. These include, but are not limited to, a reduction in trout and salmon habitat and their populations, a salinization of some formerly fresh waters in coastal

areas, an increasingly favorable climate for several already-damaging invasive species, and widely variable reservoir and lake levels.

### **Agency Attitude Toward R3 and a Shared Agency Vision**

- **To the extent possible, RBFF should assist agencies as necessary to develop a shared angler R3 vision from the top down and across divisions.**

The focus groups of professionals discussed that, in some agencies, the relative lack of focus on angler R3 is the result of the absence of a shared vision or formal plan regarding angler R3. RBFF should assist states to the extent possible to ensure that R3 staff have the full support of agency leadership, especially by formalizing R3 goals through the creation of a comprehensive R3 plan.

- **To the extent possible, RBFF should communicate to agencies in general and agency leadership in particular the importance of separating angler R3 from hunter R3.**

The focus groups of professionals suggest that some agencies still conceptualize of hunter R3 and angler R3 as being part of the same overall initiative—while they obviously share the same broad goals of recruitment, retention, and reactivation, these programs will be most successful if they are kept separate and distinct from one another (this extends to the hiring of dedicated *angler* R3 coordinators, as opposed to *general* R3 coordinators). Additionally, a number of R3 professionals in the focus groups suggested that, because hunting has experienced a more precipitous decline in participation than has fishing, many agencies perceive hunter R3 programs to be a higher priority than angler R3 programs. With this in mind, RBFF should encourage states to view angler R3 with the same importance and urgency as hunter R3.

- **To the extent possible, agencies should hire dedicated angler R3 coordinators—it appears that in some agencies, R3 programming and implementation are delegated to staff who are busy with other non-R3 duties.**

In the focus groups of professionals, it was commonly suggested that the most successful angler R3 programs are the ones supported by dedicated R3 coordinators and staff who specialize in fishing. R3 programs that are managed by staff who juggle competing duties and responsibilities will be less likely to succeed.

### **Agency R3 Program Evaluation**

- **RBFF should encourage agencies to evaluate and, if necessary, discontinue programs that are not working.**

While some agency staff may be reluctant to discontinue programs that required substantial time and effort to develop, programs whose effectiveness is questionable or cannot be reliably documented should be eliminated to make room for new, more promising programs based on a solid foundation of research. Related to this is that the consistency of program evaluations appears to vary widely by state: some agencies simply make program evaluations a higher priority than do other agencies; in other cases, evaluations are hindered by inadequate access to the necessary resources (staff, survey tools, funding, contact information for license holders or program participants, etc.). RBFF should continue to encourage states to prioritize program evaluations, especially by providing R3 staff with the resources needed to conduct these evaluations.

- **RBFF should encourage agencies to review relevant data before developing new programs.**

In doing so, RBFF should remind agencies of the importance of developing programs based on data and empirical evidence, best practices, and lessons learned—agencies must avoid simply changing the names of existing programs to “rebrand” them as R3 programs.

- **RBFF should consider taking a more active role in R3 program evaluations. The development of an R3 scorecard by RBFF could be useful, which would help agencies evaluate the resources they are devoting to R3.**

There is likely a role for RBFF to expand its assistance to agencies in terms of angler R3 program evaluations—similar to how the Wildlife Management Institute conducts independent assessments and evaluations of agency programs and work areas, RBFF may be able to more actively assist agencies to inventory, evaluate, and improve their angler R3 programs. Such assistance could make use of the Outdoor Recreation Adoption Model (known by its acronym, ORAM) or other metrics, benchmark tools, and program criteria. This was discussed in the focus groups of professionals.

- **RBFF should explore the feasibility of creating an independent team to evaluate angler R3 programs in terms of their effectiveness and return on investment.**

The findings of such evaluations should not be binding but should function as beneficial guidance—agencies would be well served by an independent review that could reliably determine which programs should be discontinued because of their lack of documented effectiveness. Such a service could help provide the “push” needed to determine the future of programs whose outcomes and impacts are questionable.

### **Participation in Outdoor Activities, Including Crossover Participation**

- **Target boaters and campers with *retention* and *reactivation* outreach, as these groups are the most likely to also go fishing. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The two activities with the greatest crossover with fishing are motorized boating (66% of motorized boaters go fishing) and camping (63% of campers go fishing). (Crossover refers to participants of one activity who also go fishing.)

- **Target hikers, bicyclers, and runners/joggers with *recruitment* outreach; these are relatively large groups that show some inclination to go fishing. Camping also has a fairly large non-angling component to target with recruitment. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The opposite of crossover discussed above consists of those who do the given activity but do *not* fish—to whom *recruitment* efforts should be directed. While it would seem that motorboaters would be the easiest to recruit (because this group has the highest percentage who also fish), the size of the target market for motorboating is not relatively large: only 12% of the overall U.S. population go motorboating but do *not* fish.

- **If one target market has priority over the others for R3, it would be those who go camping. Campers are the group with the greatest sheer numbers—it was the most popular activity overall—combined with a high propensity to go fishing—it had the second highest crossover participation with fishing.**

The largest target market for recruitment combined with the greatest propensity to fish consists of campers: 53% of residents overall went camping in the previous 5 years, and 63% of all campers went fishing—targets for *retention*. Note that 17% of U.S. residents go camping *but do not fish*, and this represents a fairly large group (about 1 in 6 adult U.S. residents) for *recruitment*, particularly because it is a good chance that at least one of their fellow campers goes fishing.

### **Interest in Fishing and Characteristics of Fishing Participants**

- **R3 efforts toward those *very* interested in fishing would include the following groups: boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the other non-boating outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

About a third of U.S. residents express the highest interest in the scale, with 36% being *very* interested in fishing. Demographic analyses of the data found the associations discussed above.

- **The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This recommendation now focuses only at those who were very interested *but who did not go*. For R3 efforts towards those very interested in fishing *but who have not gone* in the past 5 years (i.e., they have latent demand), target the following: Latinos; blacks/African-Americans; young people; those living in a suburban area; those with children in the household; and residents of the Northeast region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Retention efforts toward active anglers would be targeted to those with the following characteristics: participation in boating of any kind, but particularly motorboating; participation in camping; having children in the household; being in the middle age group; and living in a rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of active anglers.)**
- **Retention and reactivation efforts should be directed at sporadic anglers, who are associated with being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of sporadic anglers.)**

- **Reactivation efforts (and recruitment efforts as well for those who are long-time lapsed) should be directed toward lapsed anglers, who are associated with the following characteristics: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of lapsed anglers; it also includes a summary sheet of non-anglers, although this latter group would be a hard market for recruiting.)**

- **Most R3 should be directed toward freshwater fishing, as that predominates over saltwater fishing. However, in efforts to promote saltwater fishing, be cognizant that higher income anglers and urban anglers are more associated with saltwater fishing.**

The survey shows that 86% of anglers go freshwater fishing, while 38% go saltwater fishing. Anglers in the higher income bracket are more likely to go saltwater fishing than are those in the lower income bracket. In looking at where people live, anglers from rural areas are more likely to fish in freshwater than are their counterparts. Meanwhile, urban anglers are more likely to fish in saltwater than are their counterparts.

- **R3 efforts towards boaters should focus on motorboaters. However, paddlers—canoers and kayakers—should be given important consideration as an emerging market because participation in non-motorized boating is an increasingly popular outdoor recreation activity. The former group (motorboaters) are more likely to fish, although both groups are associated with fishing participation. (See Chapter 5, which includes one-page summary sheets of the characteristics of motorboaters, as well as paddlers and those who do any type of boating.)**

In the survey, 59% of U.S. residents go fishing from a boat at least some of the time. Among those anglers who use a boat to fish, 91% use motorized boats some of the time for fishing, and 38% use boats that are paddled some of the time (29% do both).

- **Promote fishing as a social activity more than a solo activity, as most fishing excursions are done with companions. Those who go fishing with others are detailed in Chapter 5, with a summary sheet devoted to those who fish with others.**

The survey shows that 96% of anglers fish with other people at least some of the time, with 66% saying that they fish almost exclusively with other people. Those other companion anglers are predominantly family: 80% of anglers fish with a family member at least some of the time, 55% fish with friends at least some of the time. Note that 18% fish with friends *but not with family*. This group fishing with friends may likely become more important in light of demographic trends that are occurring: with families becoming more widespread geographically, there may be more anglers who do not go through the traditional “family” path to becoming an angler, and more may need to be recruited via friends.

- **Encourage fishing as a social activity for social groups and the like. Fishing coupled with social events, such as youth or church groups, would provide less avid or non-anglers the opportunity to learn about fishing. In many cases, people who would otherwise never go fishing would be exposed to the recreational benefits of fishing.**

- **For the smaller target market of those who sometimes fish alone, see Chapter 5, which has a summary sheet of those who sometimes go fishing alone.**

Among anglers overall, 33% sometimes fish alone, with 4% indicating that they *always* fish alone.

- **Most fishing excursions are done for the primary purpose of fishing among active anglers. So while retention effort can be devoted to encourage fishing as part of other activities, effort should continue to be devoted to encouraging fishing as its own activity, because this aligns with the way fishing is currently most typically done among established anglers.**

Fishing is more often done as its own activity rather than as part of other activities—in other words, more often the primary purpose of the excursion is to go fishing for 64% of anglers (defined as those who fished as an adult and now go at least rarely). However, 26% typically fish as part of other activities.

- **With the above in mind, do not ignore that other target market of people who fish as part of other activities. Such outreach has the potential to get people who have never fished to try fishing when they might not otherwise go fishing, if that was the sole purpose of the trip. Analyses suggest that newer anglers are more likely than are established anglers to go fishing as part of other activities.**

As indicated above, 26% of anglers typically fish as part of other activities. The results of this study in totality indicate that fishing in conjunction with other activities, such as social, youth, or church groups, will become more important as recruitment becomes more of an issue in the future. A crosstabulation of those who started fishing within the past 10 years (i.e., newer anglers) shows that 45% of them did fishing as part of other activities, compared to 24% of those who started fishing more than 10 years previous.

- **Outreach about access locations should be developed with the fact that most anglers do not typically travel more than a half-hour to get to their fishing spot. Access that is much more than an hour from the target market will be of limited utility to most anglers.**

The majority of anglers who go just to fish (53%) typically travel no more than a half-hour to get to their fishing location.

## Motivations for Fishing

- **Emphasize the aesthetic and social reasons for fishing in retention outreach: to be out in nature and see scenery, to be with family and friends, and to relax. These had the greatest prominence among reasons to fish among active anglers.**

All of the above reasons have 85% or more of active anglers saying that they were *very* or *somewhat* important as reasons to go fishing.

- **Emphasize these same aspects in fishing recruitment and reactivation efforts—nature, scenery, family, and friends—but also encourage anglers to ask friends to go fishing.**

Lapsed anglers were asked about things that would encourage them to go fishing again; five of them are in the top tier, all with a majority of lapsed anglers saying it would *strongly encourage* or *somewhat encourage* them to fish again: for the scenery (63%), to be with family (63%), to be out in nature or outdoors (59%), if somebody asked them to go (56%), and to be with friends (51%).

- **While the social and aesthetic reasons to fish are the most important, there are some who will be attracted by the excitement of fishing, particularly the excitement of catching a fish (and especially the first fish). So this aspect cannot be completely ignored.**

Although some active anglers in the consumer focus groups openly acknowledged the appeal of fishing as peaceful, calming, and relaxing, many participants who expressed hesitancy or lack of interest in participating often complained that fishing is “boring.” To encourage non-anglers to consider fishing, at least a portion of the marketing needs to emphasize the exciting aspects of fishing, such as the thrill of the catch. Of those who have fished, focus group participants’ memories of fishing often featured two common elements: fishing with family and the excitement of their first catch. Emphasis on the excitement may entice those who heretofore had no interest in fishing.

### **Constraints to Fishing Participation**

- **Address anglers’ dislikes, which include access problems, litter, and poor water quality, or at the very least attempt to explain any shortcomings and advertise efforts that are attempting to address these dissatisfactions.**

Among active anglers (those who fished in the past 5 years), access, litter, and water quality are important dislikes over which the agency and fishing industry have some control (lack of time and mosquitos/pests were other top items, but they are mostly out of the agency’s or industry’s realm).

- **Regarding litter, programs to keep access areas clean are important; when people see litter at the access areas, it undermines the message that anglers are environmentalists.**
- **The most important reason that sporadic anglers had not fished in the previous 5 years was not having anybody to fish with—any programs that attempt to reconnect active anglers with sporadic anglers would seemingly be effective.**

Among anglers who fished in the past 10 years but not the past 5, the two reasons above led the list. Other issues included water quality and pests (which were dislikes among active anglers previously discussed).

- **Emphasize finding a place to fish in outreach—access is an important problem that needs to be addressed. It is a problem that may be exacerbated by housing developments and urbanization.**

Not knowing where to fish is one of the most common issues that emerged during this study. Even if those who are interested in fishing know they need to get a license and know they need a fishing pole and bait, they may still have no idea where they should go fishing. TakeMeFishing.org is an excellent resource for this information, but many focus group participants had never heard of the website. Marketing this resource specifically for the purpose of connecting beginners with information on where to fish could potentially remove an important obstacle to fishing. Having all states use the free website plug-ins developed by RBFF is key to reducing barriers and making fishing more convenient.

- **Target Latino families with assistance and resources that will remove their perceived obstacles to fishing.**

While there was some modest to moderate interest in fishing among Latino adults in the consumer focus groups, many of the Latino focus group participants were quick to cite reasons they would not fish. There are many reasons that were given for not fishing among Latino adults, with not having time and not having knowledge being among the top reasons. The expense of fishing came up as well. Latino adults who participate in outdoor recreation focus their activities a lot on family and children. Continue targeting Latino families with marketing of programs and opportunities for family and children, as well as marketing that emphasizes how easy it is to fish. Marketing to Latino families should seek to remove the perceived barriers, including lack of time and knowledge. Programs targeting Latinos have shown success but need to be continued.

### **License Purchasing Preferences**

- **About 1 in 7 active anglers have never purchased a fishing license—a group that needs to be the focus of outreach on the need to purchase a license, as well as the good things that are done with the license fees collected. Target these groups that have a higher propensity to *not* purchase a license: Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Among active anglers, 15% indicated that they have never purchased a fishing license. A one-page summary sheet of those who fished in the past 5 years but have never purchased a license is shown in Chapter 5.

- **Among fishing license purchasers, about 1 in 6 purchased their most recent license online. Target these groups with new technologies, particularly for purchasing or renewing a license: those in the higher education bracket; young people; those from the Northeast region; and those in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Overall, 17% of license purchasers bought their last license online.

- **As convenience is a central consideration of many prospective anglers, agencies should encourage online and mobile fishing license purchases to the extent possible—this includes electronic licenses accessible via smartphone.**

In addition to the enhanced ability for agencies to capture email addresses online and through apps, online/app license sales were thought to be more convenient and more efficacious in encouraging fishing participation in general (especially by allowing quick or impromptu license purchases). It is possible that RBFF may be able to provide advice or assistance to agencies whose online licensing systems require improvements or refinements.

- **About two thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store (even among newer anglers—those who started within the previous 10 years—a bait store is the most common place of last purchase). These people make up a target market, and these in-store purchasers are associated with being ethnically Latino; from the West region; in the lower income category; in the**

**middle age bracket; female; in the lower income category; from a small city or town; and without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Overall, 69% of license purchasers bought their last license in a bait store or sporting goods store.

- **To encourage online license purchasing, emphasize the speed and ease of purchasing. These are the top reasons for preferring online fishing license purchasing.**

Those who prefer online purchasing give high ratings to the speed and ease of the purchase as reasons for preferring online (with 79% saying its speed is *very* important and 74% saying its ease is *very* important).

- **Of the four possible renewal options examined in the survey, the most popular would be an email reminder that includes a link to the license purchase webpage. This produced the highest likelihood of encouraging a license purchase.**

The most popular renewal method asked about was an email reminder that includes a link to the license purchase webpage. In the middle tier were a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage. There was much less interest in an auto renewal service connected to a credit card, although it should still be an option.

- **Target females; those living in the Northwest region; those in the higher income category; those in the middle age group; and residents of suburban or rural areas for the renewal method of an email reminder that includes a link to the license purchase webpage. They had the strongest association with saying this would make them likely to renew their license. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For reaching those who would be very likely to renew their license through an app on their phone, target the following groups: Latinos; residents of suburban areas; those in the middle age group; those with children in their household; runners/joggers; and those with at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **To reach those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage, target the following groups: Latinos; those with children in the household; those in the higher income category; younger people; boaters; and residents of the West region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For reaching those who would be very likely to renew their license through an auto renewal service attached to their credit card, target these groups: residents of large cities/urban areas; younger people; blacks/African-Americans; those having a household income in the higher category; runners/joggers; those having at least a bachelor's degree; and residents of suburban areas. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

- **To assist in any renewal efforts, RBFF should continue to guide agencies on how to better capture the email addresses of license purchasers (as well as R3 program participants)—valid email addresses are essential for tracking and long-term follow-up, and not every state is capturing emails to the fullest extent possible.**

RBFF should consider encouraging states to offer incentives to program participants and license purchasers in exchange for valid email addresses. Many people are inclined to provide fake or deliberately misspelled email addresses when prompted to volunteer such information on forms; but a guarantee of coupons, discounts, or fishing reports offered exclusively through email could help states compile larger and more complete databases of email addresses.

- **To assist potential online buyers of licenses who may have trouble determining which license is best for them, agencies should consider setting up a short “questionnaire” online that steers potential buyers into the correct license for them. Anglers would then be more assured that they were getting the appropriate license.**

This study found that a substantial number of people felt that license purchasing was confusing, as some states offer a large number of licenses.

- **Finally regarding licenses, agencies should consider moving to a model in which everyone who goes fishing must possess a license, no matter the age or exemption.**

Mandatory licenses should be required of all. While licenses should remain free for youth and some senior participants, the simple act of obtaining and possessing the license would help reinforce the concept of always having a license to fish. Consider that around a third of Latinos and blacks/African-Americans who fished in the past 5 years did not purchase a license (whether out of lack of information, disregard for the law, or an exemption of some kind)—this recommendation could help bring down these problematic percentages. Finally, at some point, all state fish and wildlife agencies are going to have to confront the fact that free licenses for senior citizens is probably not a sustainable model as the nation’s demographics shift with more individuals in society being older than younger and more people living much longer and continuing to fish well after they might not have when free fishing licenses for seniors was first conceived, which at the time was a demographically sustainable model.

## **Hearing and Seeing Information About Fishing**

- **Know that, other than friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). Use these sources, when possible, to disseminate information.**
- **Another source to continue to focus on is social media—the next most common source of information about recreational fishing. To the extent possible, RBFF should encourage agencies to fully engage with current and prospective anglers via social media. The social media page also needs to be updated (or posted on) frequently so as to not become stale.**

In the survey, Facebook dominated in social media, although YouTube and Instagram were sources of information about recreational fishing, as well. In the focus groups of professionals, there was discussion that it is essential for agencies to control the social media conversation on official agency channels by maintaining a consistent presence to answer

questions, raise awareness of opportunities and resources, and correct misperceptions. Agencies should not shy away from using social media for fear that the negatives may outweigh the positives.

Additionally, in the consumer focus groups, many people described their use of social media to plan recreation and trips. TakeMeFishing.org already has a well-established Facebook page and shares useful resources for the information participants seek most, such as where to fish or what family events are being offered. However, not everyone is aware of the website, nor the Facebook page. Bolstering interaction with those on Facebook who are looking for such information may be an effective means of increasing viewings and sharing information.

There were discussions in the consumer focus groups regarding what agencies could do on their social media platforms. In addition to the informative posts on the TakeMeFishing Facebook page, consider asking questions on social media to start a conversation. For example, “We’ll be fishing on Lake Michigan this weekend. Where will you be?” or “Share a photo from your fishing trip this weekend.” Also consider starting and providing early administration for Facebook groups in specific locations to promote fishing in that area, such as Chicago where many Millennials did not know where to fish or how to access Lake Michigan. Once the group is active and well-established, interaction may not need as much administration from RBFF and may continue independently with local residents sharing information about how and where to fish. Increasing interaction will foster growth and result in increased shares, thereby increasing distribution of information needed to help people start fishing.

- **RBFF should continue to encourage states to use social media to communicate with and market to under-represented audiences.**

Beyond prepared marketing materials such as print advertisements and television spots (which take substantial planning and development in terms of layout and content), social media platforms such as Facebook and Instagram are cost-effective ways for agencies to depict diversity in anglers. Using social media to reinforce the presence of women, youth, and minority groups in fishing will help to curb the stereotype of fishing as an activity for older, white, rural males.

- **Efforts to address negative content about fishing on all of the above sources is important, as about half of people are seeing things, at some times, that are negative about fishing (although, fortunately, content is mostly positive).**

Regardless of the source (with an exception), about half of the people who heard/saw information on the given source indicated in the survey that the information was not wholly positive (although mostly positive). The exception is the information disseminated by retailers and agencies, which seek to spur participation and would presumably not counterproductively belittle fishing. More research should be conducted to learn exactly what types of negative information are being disseminated.

### **Familiarity With State Agency Websites**

- **The most important types of information on the state agencies’ websites are license/permit/tag information, regulations and season dates, and fishing locations. About a quarter of U.S. residents are very or somewhat familiar with their state agency’s website, and these are the things they were seeking on the site. Access, in particular, is important given that access is an oft-mentioned problem and has the potential to become more of a problem with increasing urbanization.**

## Outreach in General

- **Agencies should increase their marketing of TakeMeFishing.org and emphasize the valuable information resources it provides for getting started fishing.**

TakeMeFishing.org already addresses so many of the concerns and constraints expressed by participants in the consumer focus groups, such as learning how to fish, finding where to fish, how to obtain a fishing license, and accessing instructional and supportive videos for fishing. A problem is that many focus group participants, even experienced anglers, had never heard or used the website prior to group discussion. After hearing a brief description of the site, many participants expressed support, interest, or enthusiasm for the site. TakeMeFishing.org is a valuable resource for current and potential anglers, it just needs to be brought to their attention. Agencies should consider expanding and further targeting current marketing efforts. The general population needs to know about this resource, as it is uniquely designed to bridge the gap from interest to participation in fishing.

- **A free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth would be a good source for disseminating outreach.**

There was some interest expressed in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and other topics: 22% indicated being very likely to use such an app, and another 15% were somewhat likely to use such an app (a sum of 37%).

- **A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so). For targeting, those groups most likely to watch online videos are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **About 1 in 5 U.S. residents tried other self-teaching methods (other than online videos). For targeting, know that males and younger people are more likely than their counterparts to do other self-teaching methods.**

Self-teaching methods are more often done by males (31%) than females (9%), and they are more often done by younger people than older people (26% of those 18 to 34 years old, compared to 19% of those 35 to 54 years old and 18% of those 55 years old and older).

- **For recruitment, outreach needs to go beyond the fishing digest/fishing regulations booklet or the agency website, as these are used by the people that the agencies are already reaching. To reach new potential anglers, outreach needs to go beyond agencies' already-served market.**

## Outreach to Under-Represented Groups

- **RBFF should continue to help states promote fishing to females, Latinos, youth, and urban residents—many states acknowledge these groups as being among the most important demographic segments for outreach and specialized angler R3 programs.**

As discussed in the professional focus groups, RBFF could be especially impactful in helping states select the appropriate imagery and messages with which to target these groups, as well as potential industry and NGO partnerships to support marketing and R3 efforts. As part of this, RBFF should also continue to develop specialized campaigns and initiatives that address the changing demographics of the country (the Vamos A Pescar™ initiative is an important model).

- **Continue to use images of youth, family, social groups, under-represented demographic groups, and targeted groups in marketing.**

Consumer focus group discussions occasionally revealed the perception that fishing is a quiet, solitary activity composed primarily of older, white men. While fishing R3 efforts have clearly incorporated a larger array of imagery that encompasses many different ages, demographics, and situations, the research indicates that R3 marketing efforts should continue to do so. Images of youth, family, and friends depict much of the outdoor recreation participation experiences of focus group participants. Incorporating under-represented demographic groups and some of the targeted groups, such as Millennials and Latino families, will continue to make the marketing more personal and applicable for those audiences.

## Mentoring and Being Mentored

- **Anglers are engaging in mentoring, and those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. Target these audiences with outreach and programs that encourage and assist mentoring. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Active and sporadic anglers were asked the question: 65% said that they had taught someone to fish. Most commonly, those whom the mentors had taught were their sons (57% of those who taught others) or daughters (48%).

- **The concept and image of mentoring should not be just portrayed as an adult teaching a child to fish. While this is the traditional image of mentoring, it does not need to be limited in this way or portrayed only in this way. Adults can teach other adults. Children could even teach adults in some instances. This concept of various mentoring scenarios other than the traditional mentoring scenario should be incorporated into images and communications efforts when discussing the importance of mentoring to the future of fishing in America. This nontraditional mentoring relationship—kids mentoring adults or friends mentoring friends in their own peer group—could be the basis for a national campaign or theme for a campaign.**

About a quarter of mentors indicated teaching a non-family member. This latter type of mentoring may become more important in coming years to recruit people into fishing in a non-traditional way.

- **Provide and emphasize basic information with the assumption that beginners need assistance with every aspect of fishing.**

Focus group participants clearly perceive lack of information and knowledge to be one of the most important obstacles to fishing participation. As mentioned previously, TakeMeFishing.org is an incredibly valuable resource for overcoming this obstacle. However, it is worth emphasizing how little some non-anglers know about fishing, regardless of interest level. For example, confusion arose in one focus group in response to use of the term “angler.” A couple participants did not know that “angler” referred to someone who fishes. Some focus group participants also did not know a fishing license is required to fish recreationally. Quite a few focus group participants in Chicago, which is located on the shore of Lake Michigan, do not know where to go to fish or if one can fish on Lake Michigan at all. Even some focus group participants who had fished as children admitted that they do not have much knowledge as adults regarding licensing or where to fish.

Efforts to inform and motivate cannot take for granted that targeted audiences have knowledge of basic terminology or processes involved in fishing. To reach out to those who have little to no experience in fishing, the assumption should be that beginners need assistance with every aspect of fishing, such as how to obtain a license, where to fish, how to access or travel to a fishing location, and more.

- **Set new participants up for early success in fishing, which provides confidence and motivation to continue learning and participating.**

In the consumer focus groups, discussions included suggestions for fun and easy fishing events for kids, particularly ones that nearly guarantee a catch, as well as memories of first catches that sparked excitement. Given the perceptions that fishing is boring and too difficult, providing opportunities for early success in the form of a catch may provide success and encourage interest that will foster continued participation. As one focus group participant aptly observed, “Success builds confidence.”

### **Purchase of Fishing Equipment**

- **Outreach for fishing equipment purchase—when targeting those who are already most likely to purchase fishing equipment—should be directed towards those who participate in boating (particularly motorboating); participate in camping; have children in the household; live in a rural area; are in the middle age category; participate in bicycling and hiking; are male; and live in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For attempting to reach those who purchase equipment online, note that the following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

- **When trying to influence equipment purchasing, note that those things with the most influence on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order.**

The survey looked at the importance of various things in influencing purchase decisions. Recommendations from other people were high on the ranking. A large majority of fishing equipment purchasers said that recommendations from friends/family, help from sales associates, and customer reviews were *very* or *somewhat* important in their purchasing decisions.

### **Partnerships With Non-Governmental Organizations (NGOs)**

- **To the extent possible, RBFF should help agencies identify new opportunities for NGO/industry partnerships and nurture existing partnerships to leverage resources for R3 programs and initiatives.**

With limited agency budgets for marketing and outreach initiatives, partnerships with tourism and travel bureaus may help promote state fishing opportunities, while partnerships with industry groups or commercial retailers could facilitate enticing discounts on equipment or group events. While there were some mild concerns among a few professional focus group participants about the profit-driven nature of retailers, the general consensus throughout the discussions was that partnerships are highly beneficial to angler R3 efforts.

### **R3 Professionals' Attitudes Toward RBFF and Its Services**

- **RBFF should help states make it as easy as possible for people to go fishing—recognize the importance of convenience to Millennials and Generation Z.**

To recruit new anglers and retain casual anglers, agencies should strive to provide (and RBFF should help to encourage) the most convenient possible path to try fishing. Agencies should make the experience of buying a license and looking for a place to fish as straightforward as possible to avoid frustrating those who are new to fishing or new to a state. Making it as easy as possible to find the appropriate license, gear, and local fishing information will encourage people to try fishing over other activities.

- **RBFF should consider offering a more regionally and geographically diverse selection of stock photos for agency marketing campaigns—the professionals focus group discussions suggest that, while R3 professionals value these photos, images are most effective when they are relevant to the geographic surroundings of the recipient.**

Some R3 professionals felt that marketing photos that are not specific to the general landscape of the recipient would fail to resonate and achieve the intended effect. RBFF should strive to provide an array of regionally diverse marketing photos for use by the states.

- **RBFF should consider extending the timeline of its grant cycle for states.**

RBFF's grant program is highly valued; the only recurring criticism relates to the perceived compressed timeline of the grant cycle for project implementation, completion, and reporting. A longer timeline would allow states more flexibility in planning and executing projects. This was discussed extensively in the focus groups of professionals.

➤ **RBFF should maintain its current general approach to working with the states.**

In the focus groups of professionals, RBFF was repeatedly praised for being easy to work with, for providing useful marketing templates and other resources, and for the ability of its staff to build productive working relationships with state R3 coordinators—many participants commended RBFF for taking the time to get to know agency personnel and for working to understand each state’s unique R3 situation (according to one R3 professional, “[With RBFF], it’s like someone gets you, like they’re on your side”).

➤ **Collectively the qualitative and quantitative research conducted for this study indicate that the efforts of RBFF to increase awareness of and participation in fishing in the U.S. is on the correct trajectory. There are some additional efforts as outlined in this report that can be initiated and some programs tweaked to further enhance these efforts, but by all measures RBFF is on the right course. RBFF, however, cannot accomplish its mission alone, and the penultimate recommendation of this study is a call for the state fish and wildlife agencies to increase efforts to implement the products and programs developed by RBFF. This can only be accomplished through reallocation of resources to support effective R3 efforts. In short, increased state involvement in implementation is critical in reaching the collective goals of keeping fishing relevant in a changing America.**

### **Association of Fish and Wildlife Agencies (AFWA) President’s Task Force on Angler R3**

➤ **The final recommendation is to use the recommendations contained in this referenced report (AFWA, 2018). Many of the recommendations in that report produced by AFWA’s task force dovetail with the collective recommendations contained in this report, particularly in the bullet immediately above. Indeed, its list of the five most salient recommendations from the report are as follows:**

- 1. Commit to developing an angler R3 plan that identifies desired outcomes and objectives.**
- 2. Commit to reallocation of sufficient agency resources (staff and funding) to ensure that initiatives to recruit, retain, and reactivate anglers can be successful.**
- 3. Commit to establishing a full-time Angler R3 Manager.**
- 4. Commit to Customer Relationship Management (CRM). Develop a complete system/database (electronic or other mechanism) to track and communicate with all agency customers.**
- 5. Commit to establishing a repository/clearinghouse where state agencies can share angler R3 efforts to include programs that were a success, as well as those that did not achieve the desired results, so that successful R3 efforts can be replicated.**

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## INTRODUCTION

The purpose of this project is to determine how fishing in the U.S. can stay relevant in a changing society. In 2016 (the year of the most recent *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* [hereinafter referred to as the *National Survey*] measuring nationwide fishing participation), 35.8 million Americans 16 years old and older went fishing. Because many people fish in one year but not in another, an even greater number of Americans participate over a 5-year period. Overall, fishing participation in the U.S. has increased since 1955, the first year the U.S. Fish and Wildlife Service and the U.S. Census Bureau conducted the *National Survey*, when 14.8 million Americans fished. The increase in participation was not steady, however. A decline in fishing participation began in 1991 and continued until 2006, after which participation in fishing once again began to increase.

The decline in fishing participation in the 1990s caused widespread concern throughout the fish and aquatic resource management community. This concern was due to the fact that anglers are an important constituency for conservation and aquatic resources as well as the primary source of funding for fisheries conservation and management. Substantial funding for aquatic resource management is derived from fishing license sales; an excise tax on fishing-related equipment such as rods, reels, and related tackle; and a tax on motorboat and small engine fuel. The Recreational Boating and Fishing Foundation (RBFF) was born in 1998 out of the concern over declining fishing participation.

Since the inception of RBFF, substantial research has been conducted to guide the development of effective programs and inform business decisions designed to increase Americans' awareness of and participation in fishing. RBFF has sponsored an array of studies over the years concerning Americans' attitudes toward fishing in general; trends in fishing participation among various demographic groups; angler churn; motivations for and barriers to fishing participation; recruitment, retention, and reactivation (R3) strategies and tactics; and more. In addition to facilitating much of this critical research, RBFF has helped increase fishing participation in the United States through the creation of programs and marketing campaigns based on a solid foundation of research.

One early study, initiated in 1992 and completed in 1995, was *Factors Related to Hunting and Fishing Participation in the U.S.* (Responsive Management, 1995). Another such study, *The Future of Fishing in the United States: Assessment of Needs to Increase Sport Fishing Participation* (Responsive Management, 1999), was conducted to assist RBFF, the Sportfishing and Boating Partnership Council, state fish and wildlife agencies, the fishing industry, and nongovernmental organizations keep current anglers fishing and encourage non-anglers to try fishing. *The Future of Fishing* report helped guide angler R3 efforts for many years and outlined broadscale R3 strategies, such as the development of national campaigns to increase interest in fishing; identified themes and messages for these campaigns to focus on; explored issues related to churn; examined satisfactions and dissatisfactions with fishing; and outlined strategies to reach under-represented populations such as women, Latinos, and blacks/African-Americans. Through this and other research, a strategic plan for the National Outreach and Communication Program, as required by the Sportfishing and Boating Safety Act of 1998, was developed. This plan was based on extensive input from the fisheries management community facilitated by researchers Dr. Bob Ditton of Texas A&M University, Mark Damian Duda of Responsive Management, and Dr. Tony Fedler of the University of Florida.

Much has been accomplished since the inception of RBFF and these original planning efforts, including much needed additional targeted research, the acknowledgment of the importance of R3 by the professional fisheries management community, and the launch of major outreach campaigns to increase Americans' awareness of and participation in fishing. However, America over the past two decades has changed demographically, attitudinally, and technologically. These major changes demand new research to improve the R3 community's understanding of current and prospective anglers and to update R3 strategies and initiatives. With this in mind, RBFF and Responsive Management undertook this project to fulfill a straightforward but challenging objective: to determine how fishing can stay relevant in a changing society.

In addition to providing an updated look at motivations, barriers, and interests among active, sporadic, lapsed, and non-anglers, this study examines how social media platforms and smartphone apps can accomplish the same basic things that were necessary for increasing fishing participation decades ago (e.g., sparking interest and facilitating invitations and reminders). This study also examines angler R3 needs, priorities, and constraints from the agency perspective, as R3 specialists today require talents and skills that in many cases were either irrelevant or nonexistent 20 years ago.

The methodology for this project included a scientific, probability-based nationally representative survey of more than 3,000 general population U.S. residents (including supplemental web-based oversamples of blacks/African-Americans, Latinos, and Asian-Americans) and two series of focus groups, one with general population residents in a diverse set of locations across the country and the other with fish and wildlife agency employees who specialize in angler R3. This data collection was used to identify actionable strategies to increase fishing across the U.S. The findings and recommendations discussed in this report are based on the new research with U.S. residents as well as the implications of major demographic, attitudinal, and technological changes that have occurred over the last two decades and will shape the U.S. in the decades to come.

When examining the findings contained in this report, note that the survey conducted as part of this project asked about participation in fishing in a 5-year timeframe. This is longer than the 1-year timeframe used in the *National Survey*, which only looks at fishing participation in a single year.

This report is organized around the several types of data gathering that were conducted. Chapter 1 starts things off with a review of previous studies pertinent to this project. Chapter 2 details the surveys that were conducted of the general population and of traditionally under-represented audiences. Chapter 3 presents the findings of the focus groups with general population groups (i.e., consumers), and Chapter 4 discusses the findings of the focus groups with agency professionals. Chapter 5 has a series of one-page summary sheets of various target markets; this chapter is a continuing resource for the development of outreach to any of the various groups detailed in this report. The full recommendations are included in Chapter 6. The report then concludes with the methodology in Chapter 7 and the sources used in Chapter 8.

## 1. REVIEW OF PARTICIPATION AND DEMOGRAPHIC TRENDS AND OTHER RELEVANT RESEARCH

This chapter provides a brief overview of research pertaining to trends in fishing participation, changes in the demographic makeup of the United States, and Americans' attitudes toward a variety of fishing-related topics, including fishing as an activity and the work of their state's fish and wildlife agency.

### MAJOR FINDINGS

- While hunting and fishing participation have both broadly declined over the latter part of the 20<sup>th</sup> century, fishing participation has seen a healthy increase in recent years.
- There were more than twice as many anglers in 2016 as there were at the time of the first *National Survey* in 1955; the rate of fishing participation among Americans in 2016 (14%) is also higher than it was in 1955 (12%).
- The U.S. Census Bureau has identified five key trends that will have important implications on fishing participation in the years to come:
  1. America's population is increasing dramatically: by 2045 the population of the U.S. will have increased by more than 40% since 2000.
  2. America is becoming more urbanized.
  3. The American general population is becoming older: a few years after 2050 there will be more individuals over 65 than under 18.
  4. The American general population is becoming more diverse: the Hispanic population is expected to more than double by 2060 while today's "minorities" will be a majority (almost 60%) of the U.S. population.
  5. The number of foreign-born individuals is increasing: at the beginning of the 1960s, 1 in 20 people living in the U.S. were foreign-born. Today, approximately 1 in 8 are foreign-born. By 2050 approximately 1 in 5 will be foreign-born.
- A warming climate and accompanying sea level rise will affect fishing and fisheries in several ways, including a reduction in trout and salmon habitat (and, ergo, their populations), a salinization of some formerly fresh waters in coastal areas, an increasingly favorable climate for several already-damaging invasive species, and more variable water levels in many reservoirs and lakes. There is also expected to be lower fish populations for many species that cannot adapt quickly enough to the changing habitat and water temperatures.
- A recent demographic analysis of current anglers suggests that an important angler cohort will soon begin to age out of buying fishing licenses, and substantial decreases in fishing license purchasers are expected to begin as early as 2022.
- Recreational fishing enjoys strong approval from the public: 93% of Americans approve of legal recreational fishing, while only 3% disapprove. However, note that America's wildlife values are changing. The American population is moving away from more traditional or utilitarian values to more mutualistic values, which may affect attitudes toward fishing as a whole. Also note that approval of fishing varies depending on the motivation for fishing and the methods used to fish.

- **Despite the country’s ongoing changes, Americans have not lost sight of the crucial role of fish and wildlife agencies. Overall, 9 out of 10 American adults agree that fish, wildlife, and their habitat require active management to ensure healthy populations. Further, roughly 4 out of 5 American adults agree that their state agency plays an important role in managing fish and wildlife and their habitat. Finally, about three-quarters of American adults agree that the work of their state’s fish and wildlife agency is relevant to them (although other research has found a disconnect in that some people value the work of their state agency while simultaneously feel that the agency is not relevant to them).**
- **Almost all American adults own a cellphone of some kind, and 4 out of 5 own a smartphone.**
- **Rural Americans, compared to urban and suburban Americans, are more likely to rely on a smartphone as their sole means of Internet access.**
- **Rural Americans, compared to urban and suburban Americans, go online the least (although a still-robust 76% of rural people go online; however, the percentage is even higher among suburban and urban residents).**

## FISHING PARTICIPATION TRENDS

Three major data sources are used to examine fishing participation among Americans: the *National Survey of Fishing, Hunting, and Wildlife-Associated Recreation* (a 5-year trend survey conducted by the U.S. Fish and Wildlife Service and the U.S. Census Bureau and commonly known as “the *National Survey*”); nationwide records of fishing license sales maintained by the U.S. Fish and Wildlife Service as part of the Federal Aid in Sport Fish Restoration Program; and a participation trend survey conducted by The Outdoor Foundation in cooperation with RBFF.

- **While hunting and fishing participation have both broadly declined over the latter part of the 20<sup>th</sup> century, fishing participation has seen a healthy increase in recent years.**

The latest estimate from the *National Survey* indicates that the national participation rate in fishing in 2016 was 14.0%, up from 13.8% in 2011 and 13.1% in 2006 (these rates reflect participation among those 16 years old and older). In raw numbers, the total number of anglers in the United States (again, ages 16 and older and including both freshwater and saltwater participants) rose from 30.0 million in 2006 to 33.1 million in 2011 and 35.8 million in 2016—essentially, fishing participation has been on an upward trajectory since 2006 (see Figure 1.1, which compares the angler participation numbers from the *National Survey* to Federal Aid fishing license sales data).

Federal Aid fishing license sales tell a similar story, although it is important to note that Federal Aid data measures *license holders*, not total participants (total participants would include anglers who are not required to purchase a license because they are fishing on private property as well as anglers who may have illegally declined to obtain a required fishing license). In 2017, the most recent year for which license sales data are available, there were roughly 29.7 million fishing license holders; this is up from 27.9 million in 2011 and 28.1 million in 2006 (Figure 1.1).

The Outdoor Foundation/RBFF survey (2019), meanwhile, found a 16.4% national participation rate for fishing in 2018—note that in this survey, the participation rate is among Americans 6 years old and older, unlike the National Survey which uses a minimum

participant age of 16. Figure 1.2 shows the trend in the national fishing participation rate as measured by the Outdoor Foundation survey—these data show a slight increase in the rate since 2015.

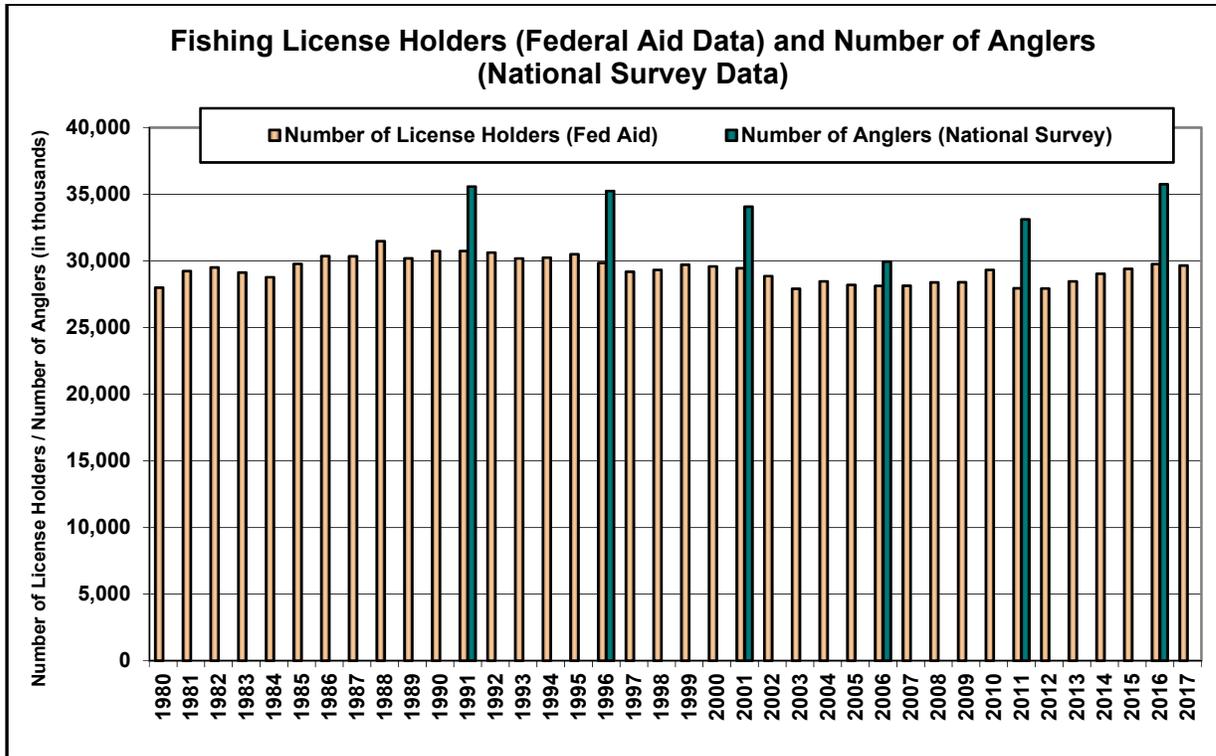


Figure 1.1. Fishing License Holders Compared to Number of Anglers Nationwide

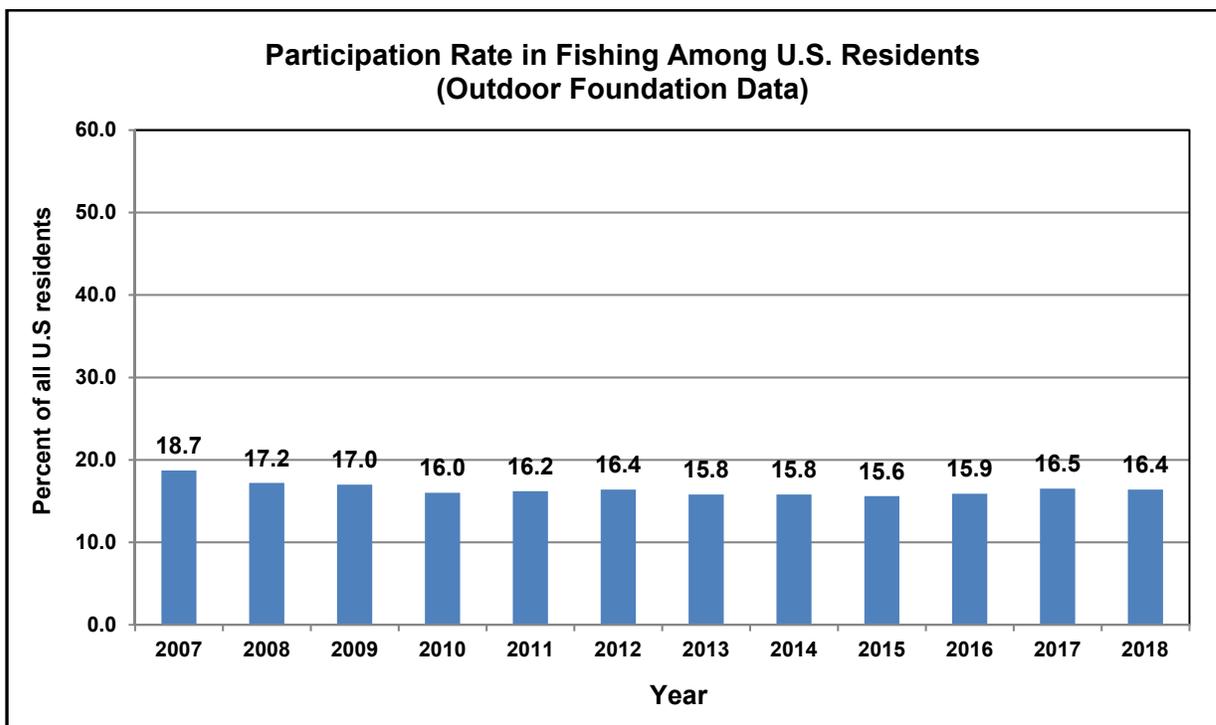


Figure 1.2. Rate of Fishing Participation Among U.S. Residents Ages 6 and Older

- **There were more than twice as many anglers in 2016 as there were at the time of the first *National Survey* in 1955; the rate of fishing participation among Americans in 2016 (14%) is also higher than it was in 1955 (12%).**

An addendum to the 2016 *National Survey* indicates that fishing, unlike hunting, has increased at a rate exceeding population growth in the United States (hunting fell behind population growth beginning in 1985) (U.S. Fish and Wildlife Service, 2019). Figure 1.3 shows a comparison of hunter and angler numbers since 1991, as measured by the *National Survey*. Whereas hunting has generally declined over the time period (despite a slight uptick in 2011), fishing declined but then increased steadily after 2006.

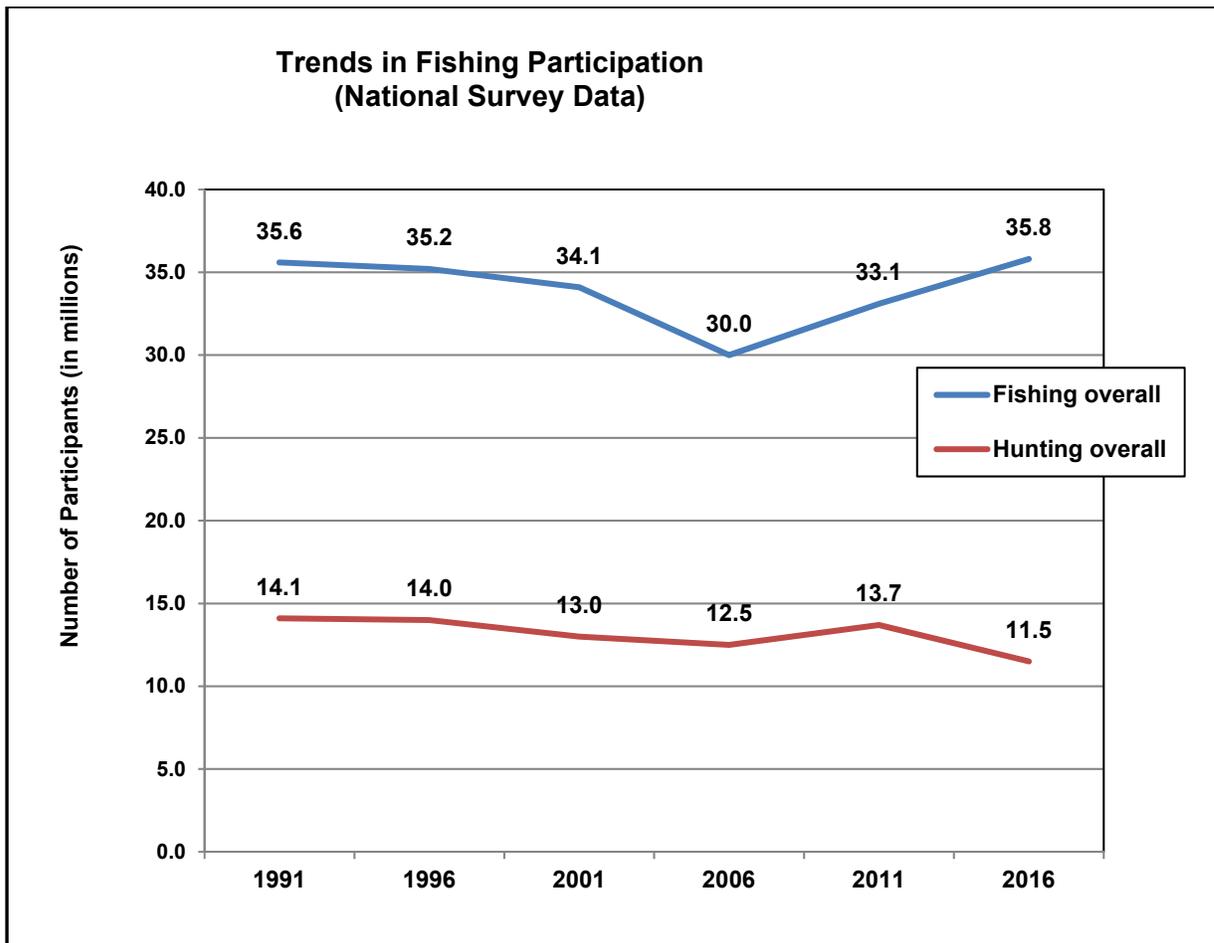


Figure 1.3. Fishing Participation Compared to Hunting Participation Since 1991

## DEMOGRAPHIC TRENDS IN THE UNITED STATES

- **The U.S. Census Bureau (2018) has identified five key trends that will have important implications on fishing participation in the years to come:**
  1. **America's population is increasing dramatically: by 2045 the population of the U.S. will have increased by more than 40% since 2000.**
  2. **America is becoming more urbanized.**
  3. **The American general population is becoming older: a few years after 2050 there will be more individuals over 65 than under 18.**

4. **The American general population is becoming more diverse: the Hispanic population is expected to more than double by 2060 while today's "minorities" will be a majority (almost 60%) of the U.S. population.**
5. **The number of foreign-born individuals is increasing: at the beginning of the 1960s, 1 in 20 people living in the U.S. were foreign-born. Today, approximately 1 in 8 are foreign-born. By 2050 approximately 1 in 5 will be foreign-born.**

The first two trends are a challenge mainly from the standpoint of the urbanization that accompanies an increasing population and the likely reduced access to areas for fishing. As suburbs encroach into formerly rural areas, areas for fishing access will be lost, and the travel distance for fishing may also increase as water bodies closer to urban areas become inaccessible. The other trends will soon begin affecting agencies' conception and understanding of "the typical angler" in modern America. These demographic changes reinforce the growing importance of communicating the relevance of fishing to urban, minority, and immigrant audiences, and in retaining or reactivating older participants who may also serve as mentors.

- **A recent demographic analysis of current anglers suggests that an important angler cohort will soon begin to age out of buying fishing licenses, and substantial decreases in fishing license purchasers are expected to begin as early as 2022.**

An age-period-cohort analysis conducted by Chase (2017) examined fishing license sales in a representative sample of 23 states. This analysis looked at how participation in fishing varies by age and specific cohorts (people born in the mid-1960s versus the mid-1980s, for instance), accounting for years in which fishing participation was impacted by an external factor or set of factors (e.g., a change in the cost of a license).

This analysis identified cohort effects as being the most important driver of fishing participation. Specifically, participants born between 1948 and 1968 are the most likely to fish. This means that fishing is not linked to a general stage in life (middle age, for example) but rather to a specific range of birth years. The implication of the predictive model developed for the analysis is that the 20-year cohort of anglers currently responsible for the highest rates of participation among the overall angler population will soon age out of the activity altogether. Unfortunately, there is no indication that the younger cohort behind this high avidity group will show the same robust levels of participation (Figure 1.4).

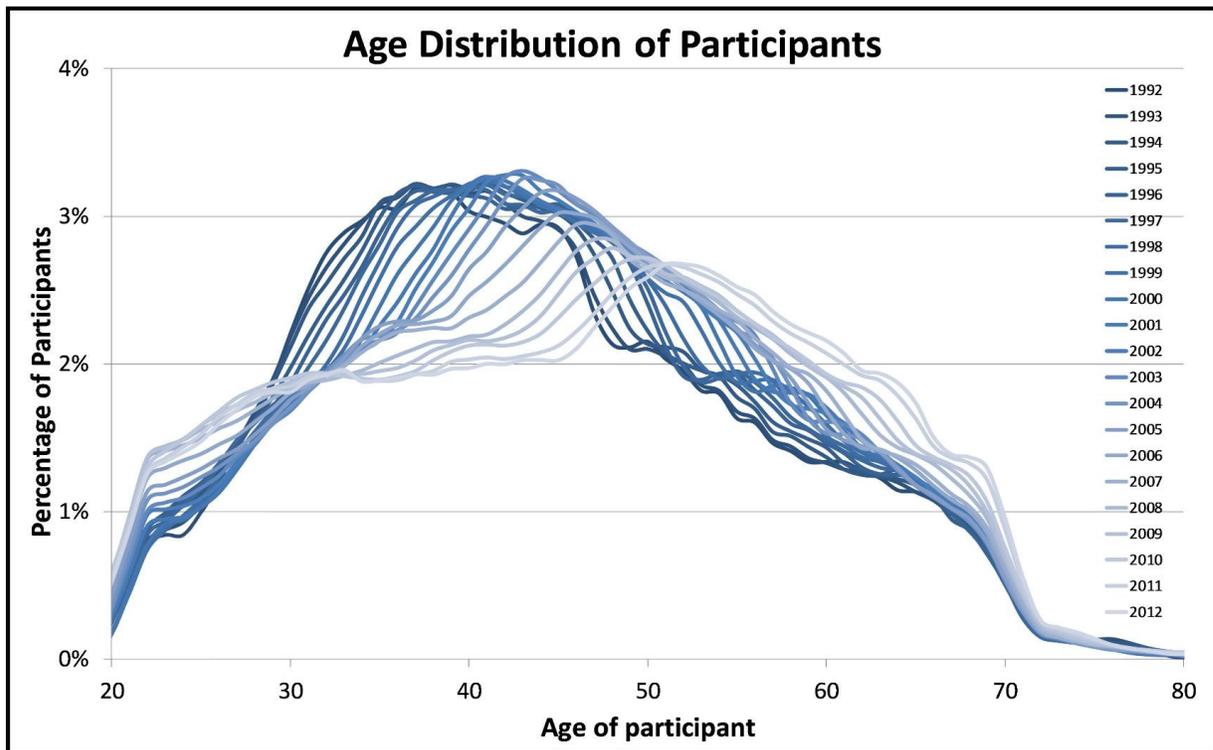


Figure 1.4. Age-Period-Cohort Analysis on License Sales in 23 States

## TRENDS IN AMERICA'S WILDLIFE VALUES

- **America's wildlife values are changing. The American population is moving away from more traditional or utilitarian values to more mutualistic values.**

The observation above comes from a recent longitudinal study conducted by Colorado State University, the Western Association of Fish and Wildlife Agencies, Ohio State University, and Responsive Management (Manfredo et al., 2018). The study used major trend surveys to determine the proportions of four major wildlife value orientations among the American general population (new data from 2018 were compared to previous data collected in 2004):

- **Traditionalists (or "utilitarians")** believe wildlife should be used and managed for human benefit.
- **Mutualists** believe wildlife are part of our social network and that humans and wildlife should live in harmony.
- **Pluralists** prioritize these values differently depending on the specific context.
- **Distanced** believe that wildlife-related issues are simply less relevant to them.

This study documented that mutualists are more likely to be found in states with higher levels of urbanization. With the country as a whole becoming more urbanized, it follows that the American public in general is moving toward a predominantly mutualist value orientation. While the study results are most relevant to hunting and the use of wildlife, the findings nonetheless suggest that, in the future, it may be more challenging to promote fishing for traditionalist/utilitarian reasons. Instead, it is likely that the social and conservation benefits of fishing will become more important to emphasize in communications.

## AMERICANS' ATTITUDES TOWARD FISHING

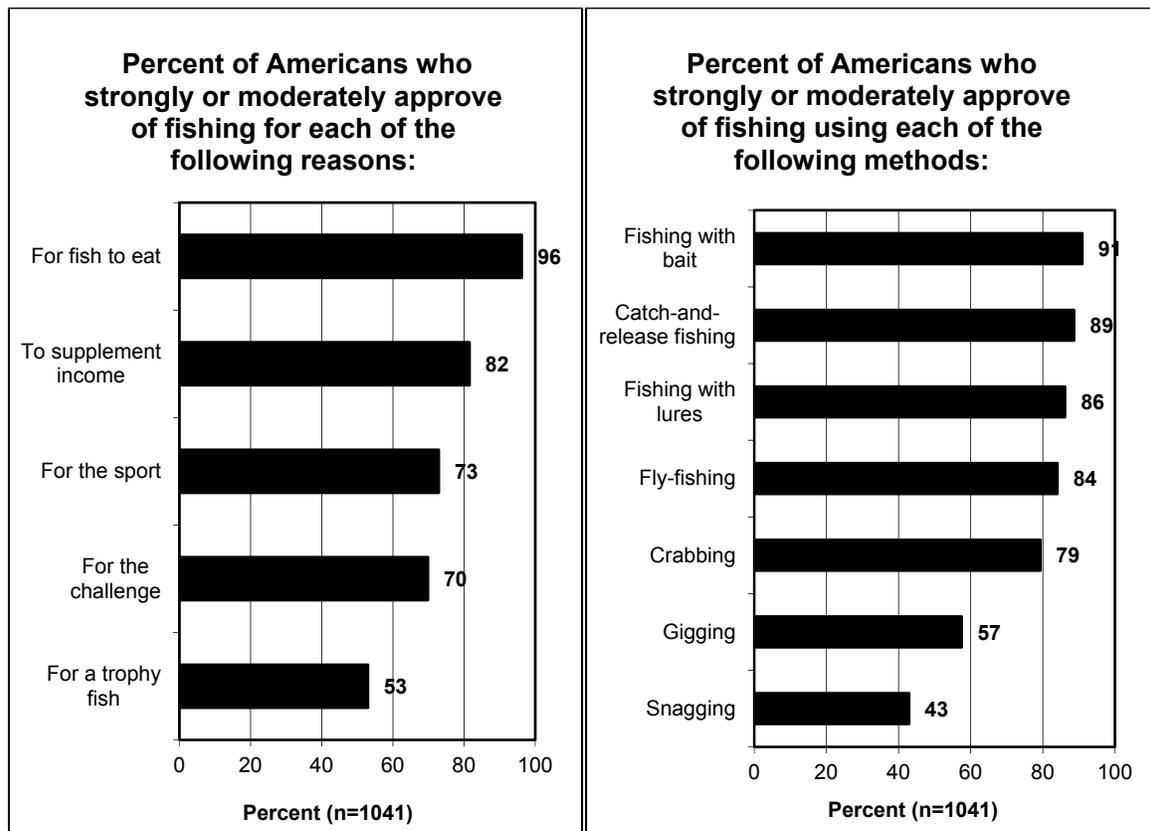
- **Recreational fishing enjoys strong approval from the public: 93% of Americans approve of legal recreational fishing, while only 3% disapprove (Responsive Management and the National Shooting Sports Foundation, 2019).**

The nationwide approval rate of fishing has remained essentially unchanged since 1995.

- **Approval of fishing varies depending on the motivation for fishing and the methods used to fish (ibid, 2019).**

Americans consider fishing for fish to eat to be much more acceptable than fishing for the sport, for the challenge, or for a trophy fish. At the same time, approval of fishing to supplement income, fishing for the challenge, and fishing for a trophy fish has increased since 2006. Figure 1.5 shows the rates of approval for fishing for various motivations.

Regarding fishing methods, approval is highest for the most common methods (fishing with bait, catch-and-release fishing, fly-fishing, and fishing with lures). Crabbing has slightly lower approval, while gigging and snagging have relatively low rates of approval among Americans. Again, since 2006, approval of even the less popular methods of gigging and snagging has increased rather notably. Figure 1.6 shows the rates of approval for fishing using various methods.



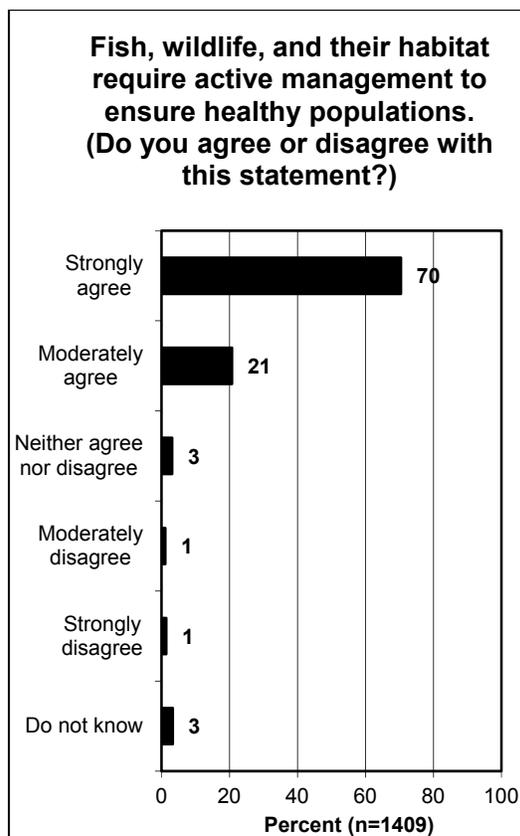
**Figure 1.5. Approval of Fishing for Various Motivations**

**Figure 1.6. Approval of Fishing Using Various Methods**

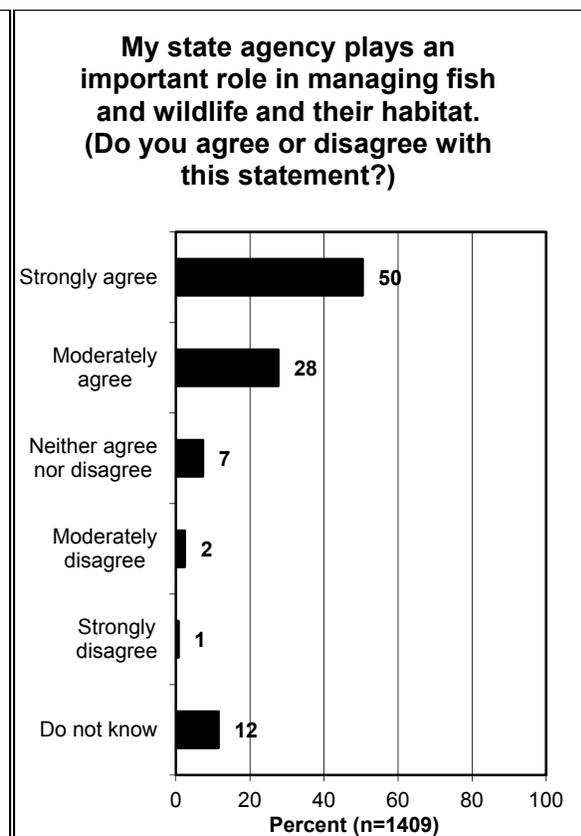
## AMERICANS' ATTITUDES TOWARD THE WORK OF FISH AND WILDLIFE AGENCIES

- Despite the country's ongoing changes, Americans have not lost sight of the crucial role of fish and wildlife agencies: 9 out of 10 American adults agree that fish, wildlife, and their habitat require active management to ensure healthy populations (Figure 1.7). Further, roughly 4 out of 5 American adults agree that their state agency plays an important role in managing fish and wildlife and their habitat (Figure 1.8). Finally, about three quarters of American adults agree that the work of their state's fish and wildlife agency is relevant to them (Figure 1.9).

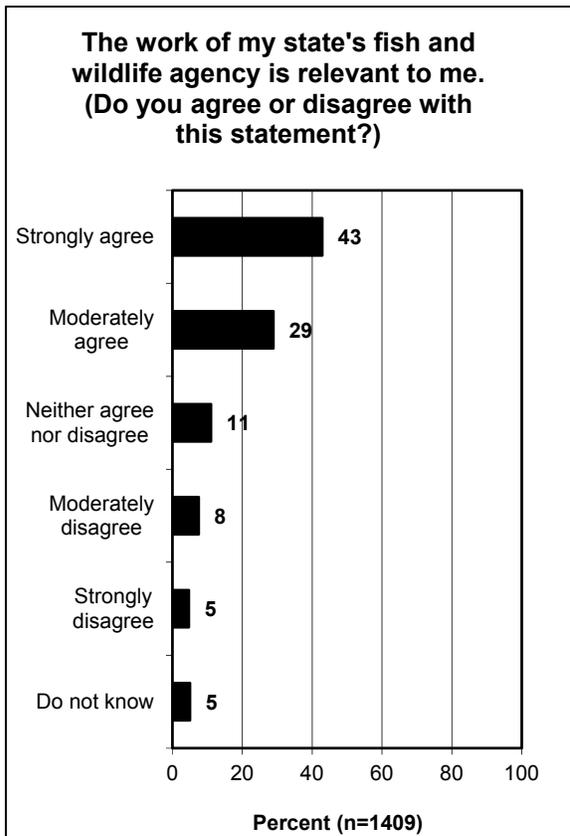
These results come from a recent survey conducted by RBFF and Responsive Management (2018) to examine U.S. residents' opinions on the work of state fish and wildlife agencies. A demographic analysis of these data determined that Americans who live in a rural area are the most likely to agree that the work of their state's fish and wildlife agency is relevant to them (Figure 1.10). Other demographic groups more likely than Americans overall to hold this view include those with a bachelor's degree or higher; white/Caucasian residents; males; and those residing in the Southeast region of the country. By contrast, the group *least* likely to hold this view is the Hispanic or Latino demographic, followed by black/African-American residents and those who live in a large city or urban area.



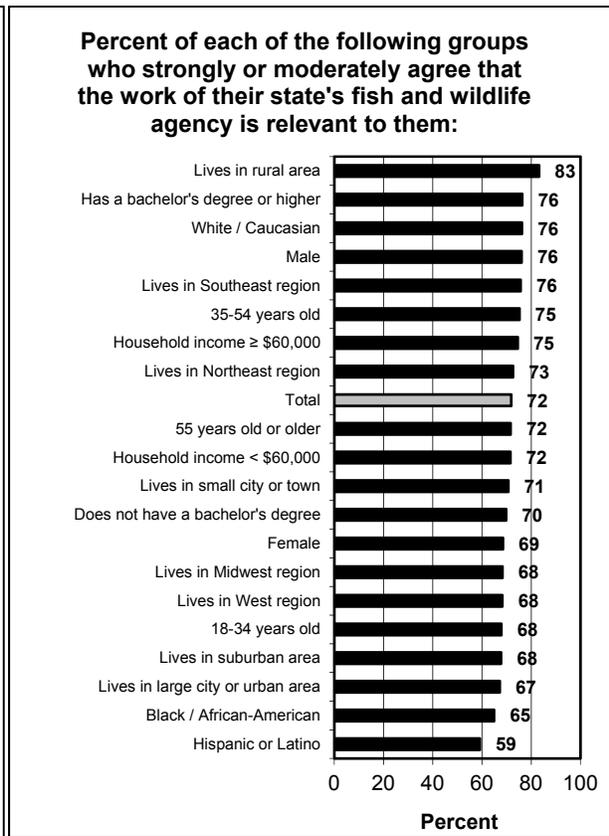
**Figure 1.7. Attitudes Toward Active Management of Fish, Wildlife, and Habitat**



**Figure 1.8. Attitudes Toward the Agency's Role in Managing Fish and Wildlife**



**Figure 1.9. Attitudes Toward the Relevancy of the Agency**



**Figure 1.10. Demographic Analysis Regarding Perceived Agency Relevancy**

**AMERICANS’ USE OF SMARTPHONES AND BROADBAND INTERNET**

As this study is concerned with the extent to which social media platforms and smartphone apps can help facilitate fishing participation, the review of research included an assessment of smartphone ownership among various demographic segments of the population. The findings cited in this section come from two recent Pew Research Center surveys of the U.S. general population (2019).

- **Almost all American adults own a cellphone of some kind, and 4 out of 5 own a smartphone.**

Men own smartphones at a slightly higher rate than do women, and smartphone ownership decreases with age: adults 18 to 29 years old own smartphones at the highest rate (96%) whereas only about half of Americans 65 and older own smartphones (53%) (Pew Research Center, 2019). Similarly, smartphone ownership increases along with educational status: college graduates (91%) own smartphones at a much higher rate than do non-high school graduates (66%). White, black/African-American, and Hispanic residents own smartphones at comparable rates (82%, 80%, and 79%, respectively). Finally, urban and suburban American adults own smartphones at a notably higher rate (83% for both groups) than do rural American adults (71%).

- **Rural Americans, compared to urban and suburban Americans, are more likely to rely on a smartphone as their sole means of Internet access.**

Rural residents, compared to urban and suburban residents, are less likely to have home-based broadband Internet access (63% of rural residents have broadband internet at home, compared to 75% of urban residents and 79% of suburban residents) (Pew Research Center, 2019). Further, rural residents, compared to urban and suburban residents, have the greatest percentage saying they do not use broadband internet at home but do own a smartphone.

- **Rural Americans, compared to urban and suburban Americans, go online the least.**

Whereas just 76% of rural residents go online daily, 83% of urban residents and 86% of suburban residents say the same (Pew Research Center, 2019).

## CLIMATE CHANGE

- **A warming climate and accompanying sea level rise will affect fishing and fisheries in several ways, including a reduction in trout and salmon habitat (and, ergo, their populations), a salinization of some formerly fresh waters in coastal areas, an increasingly favorable climate for several already-damaging invasive species, and more variable water levels in many reservoirs and lakes. There is also expected to be lower fish populations for many species that cannot adapt quickly enough to the changing habitat and water temperatures.**

Both the warming climate and the accompanying sea level rise will affect fishing and fisheries in several ways, including a reduction in trout and salmon habitat and their populations, a salinization of some formerly fresh waters in coastal areas, and an increasingly favorable climate for several already-damaging invasive species (Bipartisan Policy Center, 2008). Lower fish populations are also a distinct possibility under the new climate that emerges in the next decades as the earth and its waters warm (Weise, 2019).

## OTHER RELEVANT RESEARCH ON FISHING PARTICIPATION AND R3

The background research for this study also entailed a review of other relevant documents and reports concerning fishing participation, angler motivations and interests, and angler R3 plan and program development and implementation. Sources examined included the following:

- *The 2019 Special Report on Fishing*, produced by RBFF and The Outdoor Foundation, which details fishing participation trends based on an annual survey conducted by the two organizations.
- *Recommendations from the AFWA President's Task Force on Angler R3*, which formalized important recommendations for the development of angler R3 programs.
- *Results from the National R3 Symposium*, produced by the Council to Advance Hunting and the Shooting Sports and D.J. Case & Associates, and covering the outcomes of a major national meeting concerning resources and partnerships devoted to the promotion of hunting, fishing, target shooting, and boating in the United States.
- RBFF's *Best Practices Workbook for Boating, Fishing, and Aquatic Resources Stewardship Education*, which provides guidelines for program development and enhancement.
- *Evolution and Current Use of the Outdoor Recreation Adoption Model*, produced by Robert Byrne and Matt Dunfee, which provides background on the development and applications of the Outdoor Recreation Adoption Model.

- *Draft R3 Plan for the Virginia Department of Game and Inland Fisheries*, a representative “R3 vision” document outlining the mission, goals, and measures of success for Virginia’s combined hunting and fishing R3 strategy.
- *Pennsylvania Fish & Boat Commission Business Analysis*, a programmatic evaluation of the agency produced by the Pennsylvania State University Ecosystem Science & Management College of Agricultural Sciences; this document includes recommendations for marketing and R3 program enhancements as well as observations regarding demographic trends.

## RESEARCH SPECIFICALLY ABOUT AGENCY RELEVANCE

**A study of Pennsylvania residents asked directly about this topic. In short, many Pennsylvania residents thought that the work of their state’s wildlife agency was *important*, but they did not feel that the work of the agency strongly *affected* them.**

A 2018 survey of Pennsylvania residents included two questions that got at the very heart of this matter. Residents were asked to rate how much the work of the Pennsylvania Game Commission affect them, and they were asked to rate how important the work of the Pennsylvania Game Commission is. (Note that the order of those two questions was randomized, so no order bias exists.) The differences are striking: the mean rating (each used a 0 to 10 scale) regarding the work affecting residents is 5.03, just barely above the midpoint, and only 10% gave a rating of “10”; on the other hand, the mean rating of the importance of the work is 8.53, and 46% gave that rating a “10” on the scale (Responsive Management, 2019b). This finding reiterates an earlier finding that roughly 4 out of 5 American adults agree that their state agency plays an important role in managing fish and wildlife and their habitat (as shown in Figure 1.8), but it shows that a disconnect exists wherein some people feel the work of the agency is important but simultaneously feel that the agency is *not* relevant to them.

## RECOMMENDATIONS

- **Agencies must support and encourage the expansion of urban fishing programs.**

As rural areas continue to become developed and more U.S. residents move to urban areas, the availability of fishing opportunities in cities and other urban settings will be critical to the continued growth of fishing.
- **Agencies must recognize that increased urbanization is likely to introduce new resource-related constraints to fishing.**

In the past, social constraints (work and family obligations, age- and health-related issues, etc.) have typically been greater impediments to fishing than resource-related constraints. However, with increased urbanization of the country, access issues will be exacerbated and may result in resource constraints becoming as important as social constraints—in effect, a twofold impact of impediments to fishing.
- **Agencies, NGOs, and industry groups must continue using models and images of minorities.**

Including minorities in marketing, communications, and promotional materials will help to accurately reflect the changing demographics of American citizens.

- **The fishing community must begin planning for a drop in traditional license purchasers as key cohorts begin to age out of fishing.**

Demographic analyses indicate that, in particular, a cohort of anglers in the Baby Boomer demographic (birth years from 1948 to 1968) will soon age out of fishing. This cohort is an important segment of the overall angler population, and the current national fishing participation rate is likely to dip as a result of the loss of this cohort.

- **Agencies must recognize that Americans are becoming less utilitarian and more mutualistic in their fish and wildlife values.**

In the future, it will be more difficult to promote fishing for utilitarian reasons. Instead, it will be important to emphasize the conservation and social benefits of fishing. Additionally, the fishing community may increasingly be obligated to defend the humaneness of fishing. While public approval of fishing today remains high, America's changing values toward fish and wildlife may impact the current public perception of fishing.

- **One important note: people feel that the work of their state fish and wildlife agency is important, even if at the same time they do not feel that the work affects them. This logic disconnect needs to be addressed. Outreach needs to link the importance to relevance. The general public's caring attitude toward wildlife is an avenue for the agencies to make themselves more relevant to the public.**

A 2018 survey of Pennsylvania residents found that they rated the work of the agency higher than they rated the agency's relevancy to them—a logic disconnect. In short, residents were asked to rate how much the work of the Pennsylvania Game Commission affect them, and they were asked to rate how important the work of the Pennsylvania Game Commission is. The mean rating on a 0 to 10 scale regarding how much the work affected them was 5.03 and only 10% gave a rating of "10"; conversely, the mean rating of the importance of the work was 8.53, and 46% gave that rating a "10."

- **RBFF should continue developing programs and efforts based on a solid foundation of research, as it has done in the past.**

Fishing participation in the United States was trending downward in the 1990s but began to rebound in the mid-2000s. These participation trends paralleled the inception of RBFF in 1998 and the initial impacts of its programs and initiatives beginning in the early 2000s. It might therefore be reasonable to attribute some of the uptick in fishing participation over this period to the efforts of RBFF. In developing these early programs and initiatives, RBFF was able to draw on the findings and recommendations of several research studies that broke new ground in the use of social science to fine-tune recruitment, retention, and reactivation. Specifically, Responsive Management and its research partners provided numerous strategies to address the decline in fishing participation in *Factors Related to Hunting and Fishing Participation in the United States* (conducted in 1995 with the Western Association of Fish and Wildlife Agencies); *The Future of Fishing* (conducted in 1999 with the Association of Fish and Wildlife Agencies); and *Factors Related to Hunting and Fishing Participation Among the Nation's Youth* (conducted in 2003).

Each of these studies offered important recommendations for the development of programs and initiatives that were spearheaded or otherwise encouraged by RBFF in the early years of the organization. For example, the successful "Take Me Fishing" campaign was born out of Responsive Management research that identified a request from a child to be taken fishing as the most important factor in convincing people to fish. The implication is that programs based on social science and scientific research are the most likely to succeed.

- **The fishing community will need to adapt to changes in fisheries locations, timing of fish lifecycles, and other effects of climate change on fisheries. In particular, access to fisheries will change as the fisheries themselves change.**

Both the warming climate and the accompanying sea level rise will affect fishing and fisheries in several ways, including a reduction in trout and salmon habitat and their populations, a salinization of some formerly fresh waters in coastal areas, and an increasingly favorable climate for several already-damaging invasive species. Lower fish populations are also a distinct possibility under the new climate that emerges in the next decades as the earth and its waters warm.

## 2. SURVEY RESEARCH

This chapter discusses the results of the survey of the general population that is representative of all U.S. residents. Also included are some results from a supplemental survey of Latinos, blacks/African-Americans, and Asian-Americans. The full methods are detailed in Chapter 7; some definitions of terms to help the reader understand the results are discussed below.

The analyses included a look at the differences among active anglers, sporadic anglers, and lapsed anglers, as well as non-anglers. They are defined as follows:

- Active Anglers: Fished in the past 5 years.
- Sporadic Anglers: Fished in the past 10 years, but not in the past 5 years.
- Lapsed Anglers: Fished at some time, but not in the past 10 years.
- Non-Anglers: Never fished.

Some of the analyses include a regional breakdown. These regions are shown in Figure 2.1.

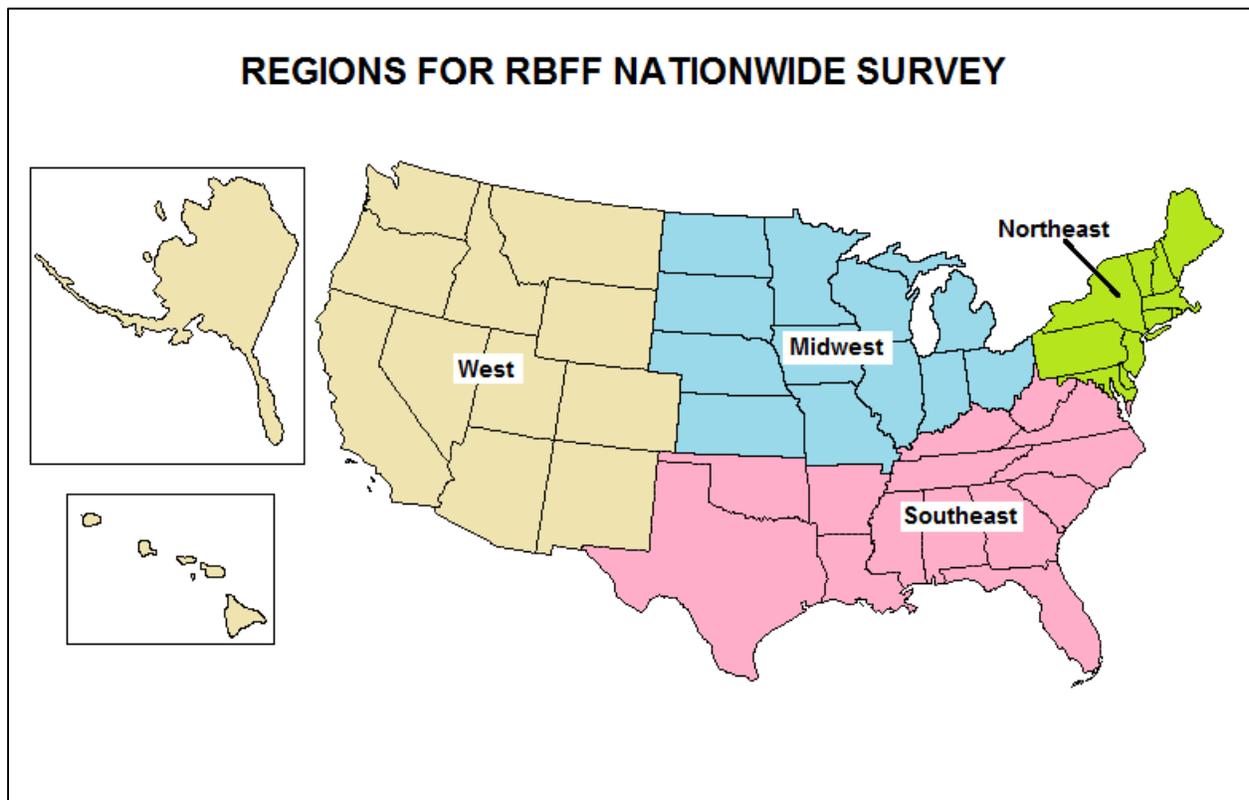


Figure 2.1. RBFF Regions Used in the Study

### MAJOR FINDINGS

#### Participation in Outdoor Activities, Including Crossover Participation

- Crossover refers to participants of one activity who also go fishing. The greatest crossover participation is among those who go boating of any kind, but particularly motorboating, as well as those who go camping. These groups represent the lowest hanging fruit, so to speak, as they show the greatest propensity to fish. Efforts should be

directed toward *retention* and *reactivation* of participants of these other activities who also fish.

- On the other hand, only about half of hikers and bicyclers go fishing, and a little less than half of runners/joggers go fishing. However, these groups (hikers, bicyclists and runners/joggers) actually represent the largest target markets in sheer numbers for *recruitment*, with roughly a quarter of the population doing the given activity but *not* fishing.
- The largest target market for recruitment combined with the greatest propensity to fish consists of campers: 53% of residents overall went camping in the previous 5 years, and 63% of all campers went fishing—targets for retention. Note that 17% of U.S. residents go camping but do not fish, and this represents a fairly large group (about 1 in 6 adult U.S. residents) for recruitment, particularly because it is a good chance that at least one of their fellow campers goes fishing.
- For targeted marketing to those who do the given activities, such as camping or hiking, see Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.
- In the supplemental survey, Latinos had a slightly (but statistically significant) higher rate of fishing than did blacks/African-Americans or Asian-Americans. Note that this survey looked at a 5-year timeframe; the *National Survey* (USFWS/US Census Bureau, 2016) uses a 1-year timeframe. These differences in timeframes may help explain differences in the two surveys regarding which group fishes the most.

### Interest in Fishing and Characteristics of Fishing Participants

- More than a third of U.S. residents say that they are *very* interested in fishing.
- Those who are associated with being *very* interested in fishing include boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)
- The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This examination now drills down to look only at those who were very interested *but who did not go*. Those who were very interested in fishing *but did not go* in the past 5 years (i.e., they have latent demand) are associated with being ethnically Latino; being ethnically black/African-American; being young; living in a suburban area; having children in the household; and residing in the Northeast region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)
- Active anglers are associated with the following: boating of any kind, but particularly motorboating; camping; having children in the household; being in the middle age group; and living in a rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

- **Sporadic anglers are associated with the following: being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Lapsed anglers are associated with the following: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Non-anglers are associated with the following: being ethnically black/African-American; being female; living in a large city or urban area; being in the older age category; not having children in the household; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Freshwater fishing predominates over saltwater fishing: 6 out of 7 anglers go freshwater fishing, while just more than a third go saltwater fishing (some do both). Higher income anglers and urban anglers are particularly associated with saltwater fishing.**
- **The majority of anglers fish from a boat at least some of the time, more often motorboats than boats that are paddled.**
- **Fishing is predominantly a social activity: nearly all anglers go fishing with others at least some of the time. Nonetheless, about a third sometimes fish alone. While family predominates as a source of fishing companions, there are substantial numbers of anglers who fish with friends, sometimes at the exclusion of family.**
- **Although there is some value in attempting to get people to include fishing as part of vacation packages and so forth, it is important to know that fishing is more often its own activity rather than part of other activities.**
- **Typically, anglers travel no more than a half-hour to get to their fishing spot. Those who exclusively fish with others tend to travel a bit farther than those who sometimes fish alone.**

### **Motivations for Fishing**

- **The greatest prominence among reasons to fish are given to aesthetic and social reasons: to be out in nature and see scenery, to be with family and friends, and to relax.**
- **The most effective things to encourage fishing include those same aspects—nature, scenery, family, and friends—but also include being asked to go fishing.**

### **Constraints to Fishing Participation**

- **Among active anglers, access, litter, and water quality are important dissatisfactions over which agencies and fishing industry have some control.**
- **The most important reasons that sporadic anglers had not fished in the previous 5 years were not having anybody to fish with and having health problems.**

## License Purchasing Preferences

- **About 1 in 7 active anglers have never purchased a fishing license. These groups that have a higher propensity to *not* purchase include Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Among fishing license purchasers, about 1 in 6 purchased their most recent license online. These online purchasers are associated with being in the higher education bracket; young; from the Northeast region; and in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **About two-thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store (even among newer anglers—those who started within the previous 10 years—a bait store is the most common place of last purchase). These in-store purchasers are associated with being ethnically Latino; from the West region; in the lower income category; in the middle age bracket; female; in the lower income category; from a small city or town; and without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **The speed and ease of purchasing are the top reasons for preferring online fishing license purchasing.**
- **For in-store fishing license purchasers, having a hard-copy license, being in the store anyway, and the ease of purchase are the top reasons for preferring in-store purchasing. For some, perhaps a clerk’s help makes for an easier purchase than methods without such help.**
- **The survey asked about four possible renewal options; the most popular would be an email reminder that includes a link to the license purchase webpage. In the middle tier are a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage.**
- **Those who would be very likely to renew their license through an email reminder that includes a link to the license purchase webpage are associated with being female; living in the Northwest region; being in the higher income category; being in the middle age group; and living in a suburban or rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Those who would be very likely to renew their license through an app on their phone are associated with being ethnically Latino; living in a suburban area; being in the middle age group; having children in their household; engaging in running/jogging; and having at least a bachelor’s degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage are associated with being ethnically Latino; having children in the household; being in the higher income category; being in**

the younger age group; participating in boating; and being from the West region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

- Those who would be very likely to renew their license through an auto renewal service attached to their credit card are associated with living in a large city/urban area; being in the younger age category; being ethnically black/African-American; having a household income in the higher category; participating in running/jogging; having at least a bachelor's degree; and living in a suburban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

### **Hearing and Seeing Information About Fishing**

- Just under half of U.S. residents say that they heard or saw something about recreational fishing in the previous 5 years. They are associated with boating of any kind; participation in any other outdoor recreation, particularly hiking; having a household income in the upper category; having at least a bachelor's degree; being male; being ethnically white; and being in the older age category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)
- Other than from friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). A second tier of sources consists of social media and retailers—the next most common sources of information about recreational fishing.

### **Familiarity With State Agency Websites**

- About a quarter of U.S. residents are very or somewhat familiar with their state agency's website. Site visitors most often were seeking license/permit/tag information, regulations and season dates, and fishing locations.

### **Outreach**

- About a third of U.S. residents are interested in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth.
- A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so) or had tried other self-teaching methods (20%).
- Those groups most likely to watch online videos are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)
- Males and younger people are more likely than their counterparts to do other self-teaching methods.

- **Outreach in the form of direct contact from the state agency, broadly defined to include email or in-person contact (by a Game Warden, for instance), reaches about 1 in 7 residents of the U.S.**

### **Mentoring and Being Mentored**

- **Anglers are engaging in mentoring: about two-thirds of anglers are passing along the tradition, engaging in mentoring at some time. Those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

### **Purchase of Fishing Equipment**

- **A little over half of U.S. residents bought outdoor recreation equipment of some kind in the previous 5 years, and fishing equipment was bought by about a quarter of U.S. residents.**
- **Fishing equipment purchasers are associated with participation in boating (particularly motorboating); participation in camping; having children in the household; living in a rural area; being in the middle age category; participation in bicycling and hiking; being male; and living in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Approximately three quarters of those who purchased new fishing equipment bought all of it in a store, while about a quarter bought some of it online. Most shoppers do at least *some* of their purchasing in a store, as a very low percentage—2% at most—purchase *all* their fishing equipment online.**
- **The following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Rods, reels, and lures/flyes are the most common categories of purchases. A second tier consists of lines/sinkers and creels/tackle boxes/bags.**
- **Those things with the most influence on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order.**

## SURVEY RESULTS AND FINDINGS

### Participation in Outdoor Activities, Including Crossover Participation

- **Crossover refers to participants of one activity who also go fishing. The greatest crossover participation is among those who go boating of any kind, but particularly motorboating, as well as those who go camping. These groups represent the lowest hanging fruit, so to speak, as they show the greatest propensity to fish. Efforts should be directed toward *retention* and *reactivation* of these participants who fish.**
- **On the other hand, only about half of hikers and bicyclers go fishing, and a little less than half of runners/joggers go fishing. However, these groups (hikers, bicyclists and runners/joggers) actually represent the largest target markets for *recruitment*, with roughly a quarter of the population doing the given activity but *not* fishing.**
- **The largest target market for recruitment combined with the greatest propensity to fish consists of campers: 17% of the overall population go camping but do not fish, but note that campers are the second-most likely to go fishing (63% of campers also fish).**

Table 2.1 shows the crossover among participants of the various activities, ranked by the percentage overall who do the activity (first data column). The second data column shows the percentage of participants in the given activity who also fish. The two activities with the greatest crossover with fishing are motorized boating (66% of motorized boaters go fishing) and camping (63% of campers go fishing), as shown in the second data column. The third data column shows the percentage of the total population who do the given activity and also fish—to whom *retention* efforts should be directed.

The opposite of crossover discussed above consists of those who do the given activity but do *not* fish—to whom *recruitment* efforts should be directed. While it would seem that motorboaters and campers would be the easiest to recruit (because these groups have the highest percentage who also fish), the size of those target markets, particularly for motorboating, are not relatively large, as shown in the last data column. In particular, only 12% of the overall U.S. population go motorboating but do *not* fish.

- **For targeted marketing to those who do the given activities, such as camping or hiking, see Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.**

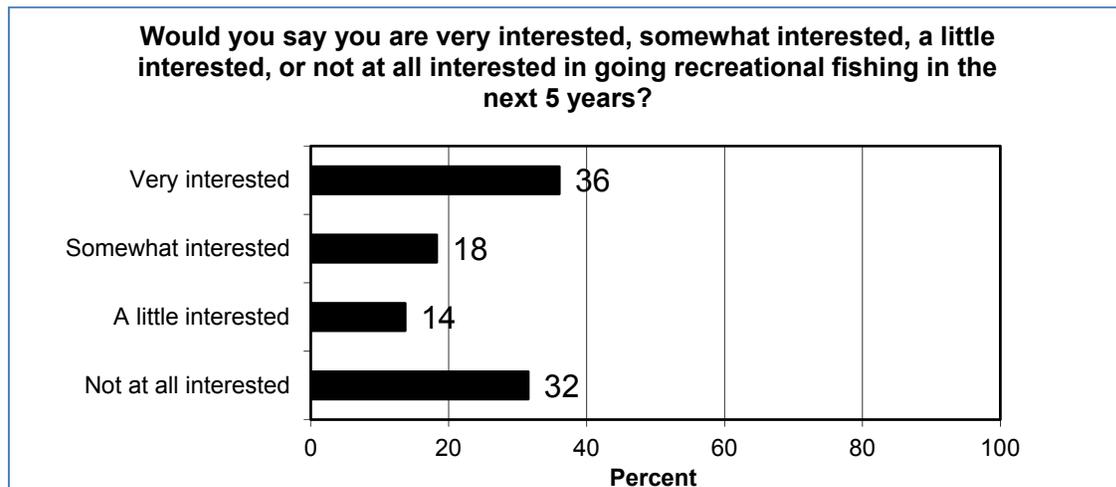
	Percent of everybody who participated in the activity in past 5 years	Target Market for Retention Efforts (They Already Fish)		Target Market for Recruitment Efforts (They Do Not Fish but Do the Other Activity)	
		Percent of participants of the activity who are active anglers	Percent out of everybody who do activity and are active anglers	Percent of participants of the activity who are NOT active anglers	Percent out of everybody who do the activity but are NOT active anglers
Hiking	53	52	28	48	26
Bicycling	52	50	26	50	26
Camping	47	63	29	37	17
Running or jogging	45	46	21	54	24
Paddling / floating by canoe, kayak, paddleboard, tube	36	56	20	44	16
Using a motorized boat of any kind	36	66	24	34	12
Any other type of boating	10	57	6	43	4

- **The supplemental survey results found that, over a 5-year timeframe, Latinos fished at a slightly higher rate than did blacks/African-Americans and Asian-Americans. Although it was a slight difference, the difference was statistically significant.**

### Interest in Fishing and Characteristics of Fishing Participants

- **More than a third of U.S. residents say that they are *very* interested in fishing.**

About a third of U.S. residents express the highest interest in the scale, with 36% being *very* interested. Another 32% describe themselves as *somewhat* or *a little* interested (Figure 2.2).



**Figure 2.2. Interest in Fishing**

- **Those who are associated with being *very* interested in fishing include boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

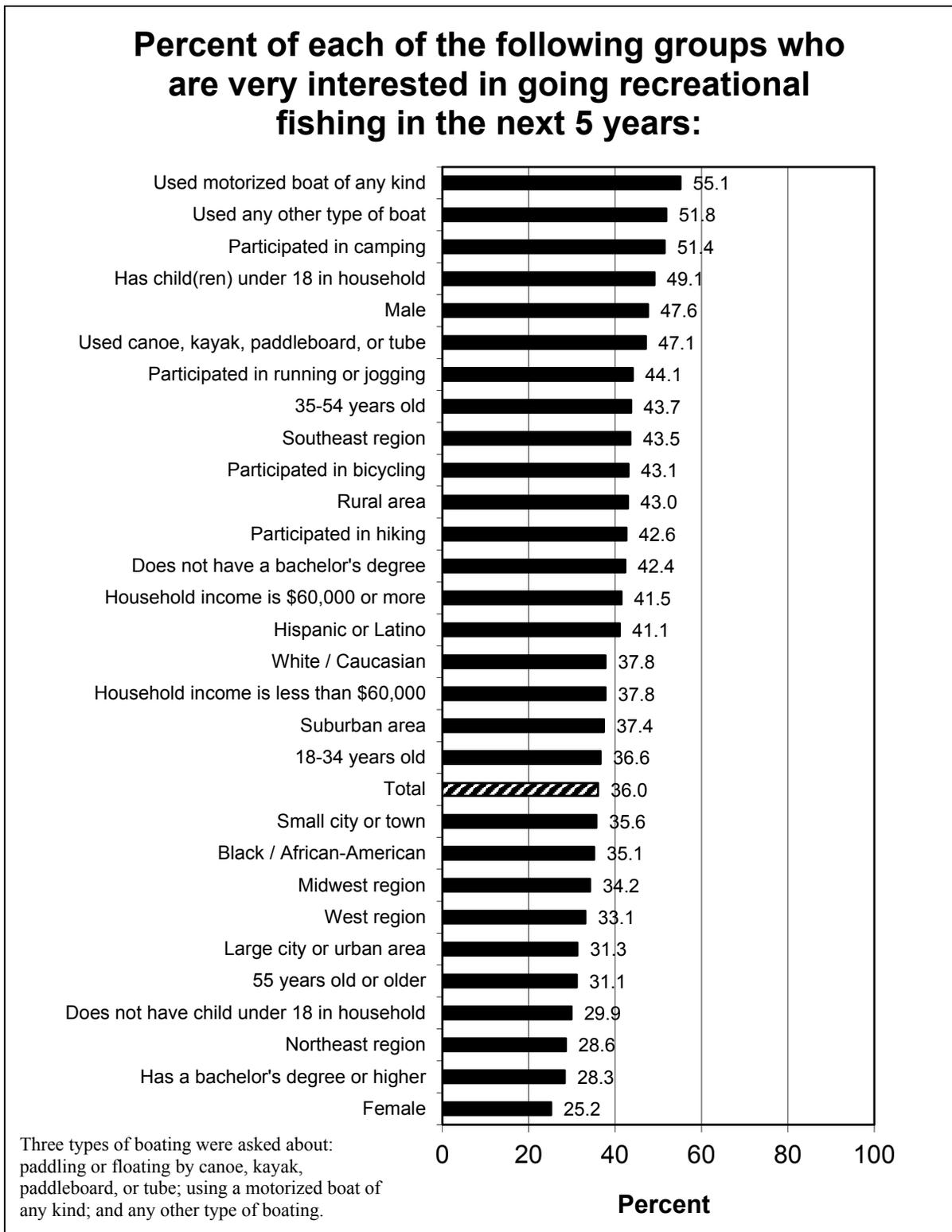
The analysis of characteristics associated with being very interested in fishing is shown in Figure 2.3. This graph shows the percentage of various groups who said that they were very interested in fishing. Overall, 36.0% of U.S. residents were very interested, shown by the striped bar. Those groups above the striped bar have a greater propensity to be very interested in fishing, while those below the striped bar have a lower propensity, compared to U.S. residents overall, to be very interested in going fishing.

To further explain how to interpret the graph: among those who used a motorized boat of any kind, 55.1% of them were very interested in going fishing. Also, males show greater interest, as 47.6% of them are very interested in fishing, compared to females (25.2%).

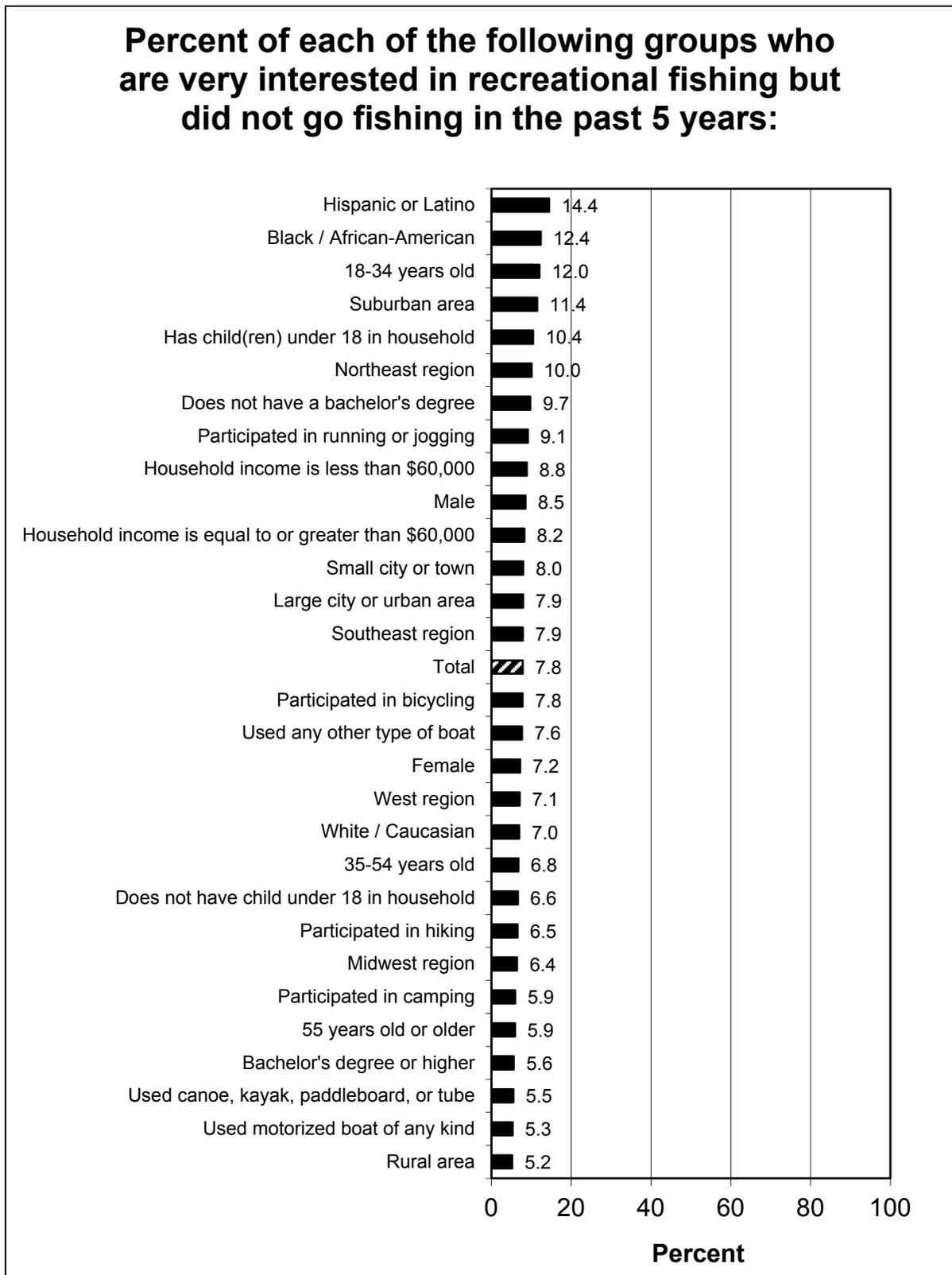
Note that in all of these graphs, three types of boating were asked about: paddling or floating by canoe, kayak, paddleboard, or tube; using a motorized boat of any kind; and any other type of boating. The third response is a catch-all not encompassed by the first two boating choices. Throughout these types of graphs, this third choice is shown as “Used any other type of boat.”

- **The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This examination now drills down to look only at those who were very interested *but who did not go*. Those who were very interested in fishing *but did not go* in the past 5 years (i.e., they have latent demand) are associated with being ethnically Latino; being ethnically black/African-American; being young; living in a suburban area; having children in the household; and residing in the Northeast region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

An analysis of those who indicated being very interested in fishing but who had not fished in the previous 5 years was conducted to examine latent demand. Figure 2.4 shows this analysis.

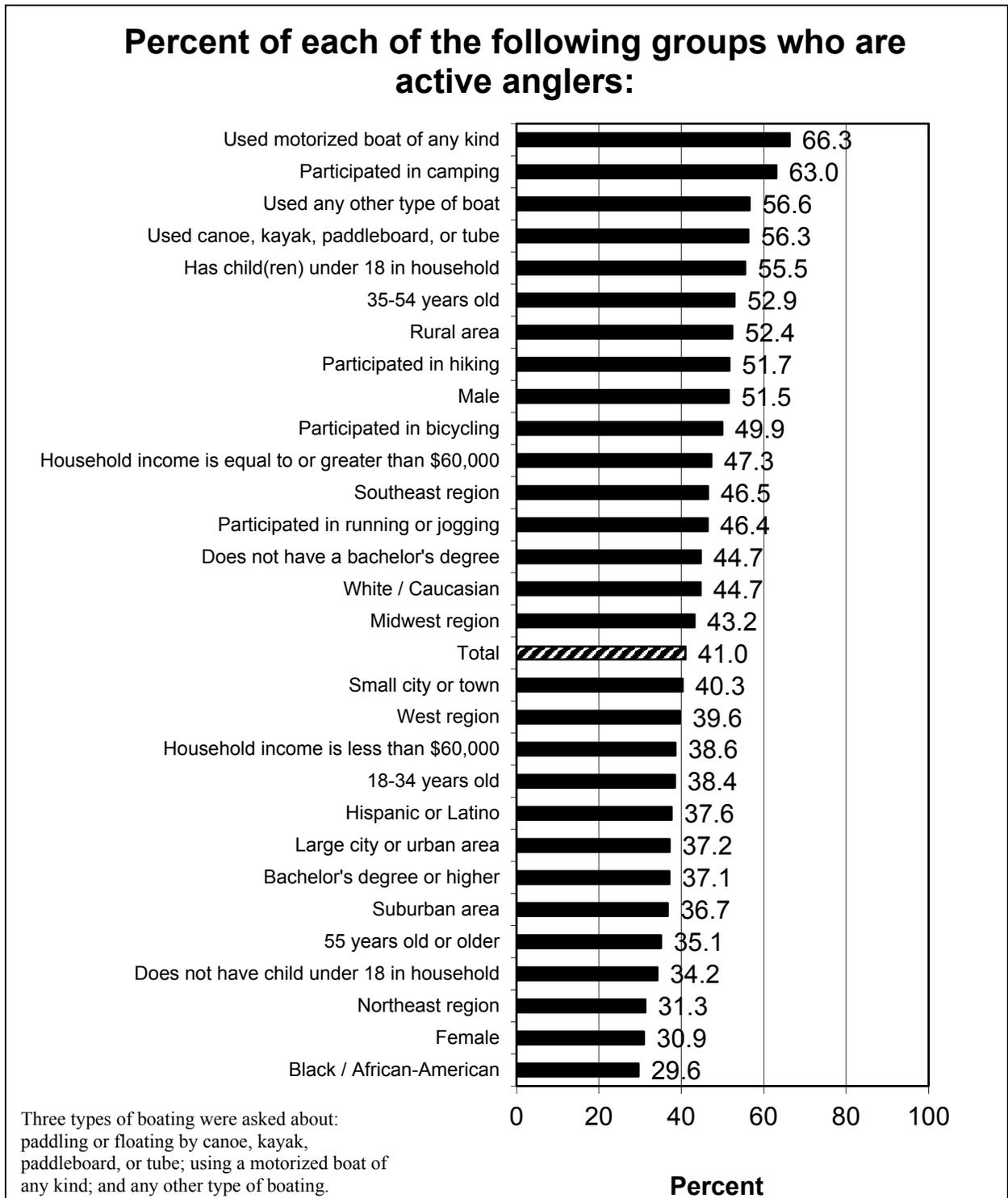


**Figure 2.3. Characteristics Associated With Being Very Interested in Fishing**



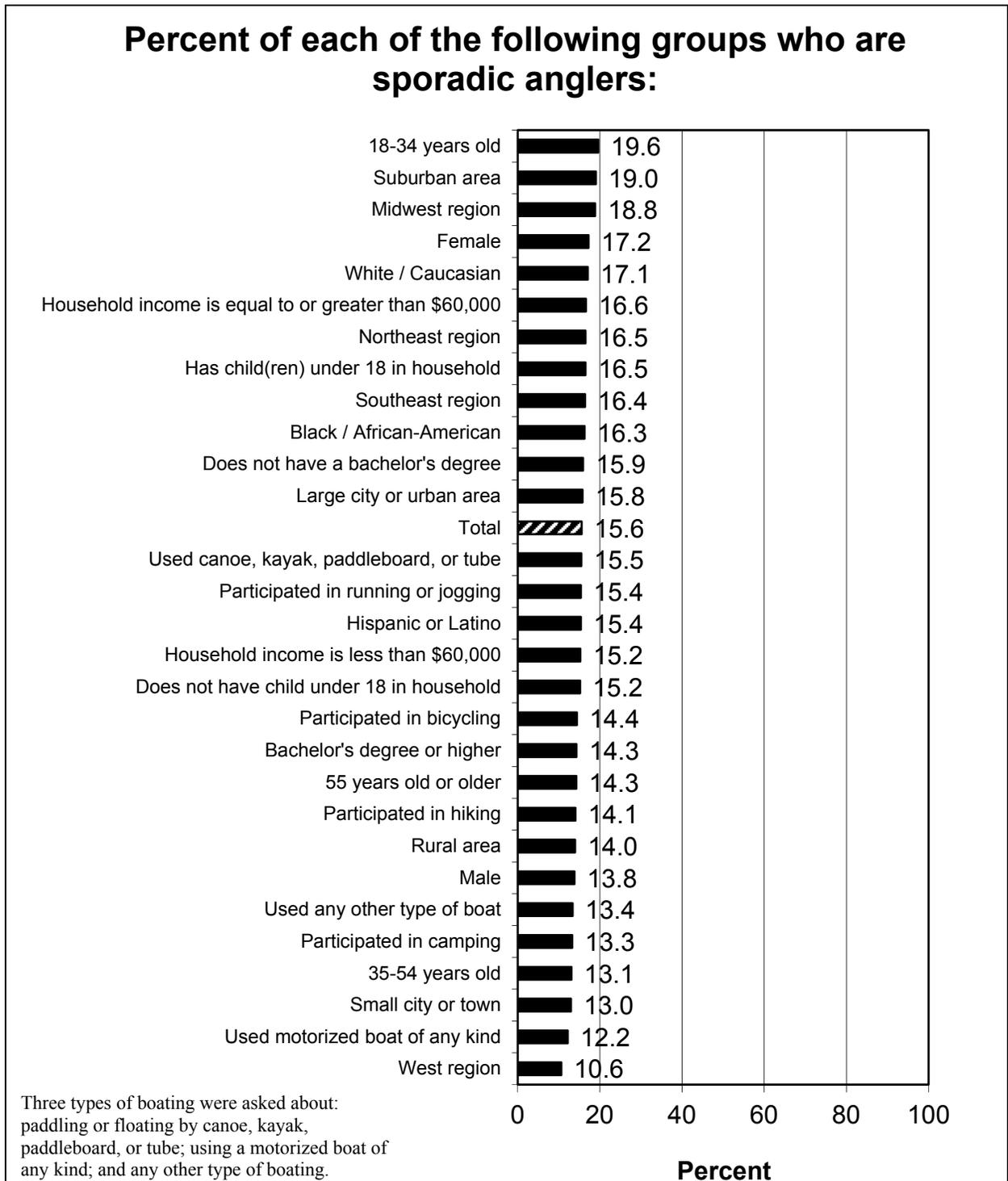
**Figure 2.4. Characteristics Associated With Having Latent Demand for Fishing**

- **Active anglers are associated with the following: boating of any kind, but particularly motorboating; camping; having children in the household; being in the middle age group; and living in a rural area (Figure 2.5). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**



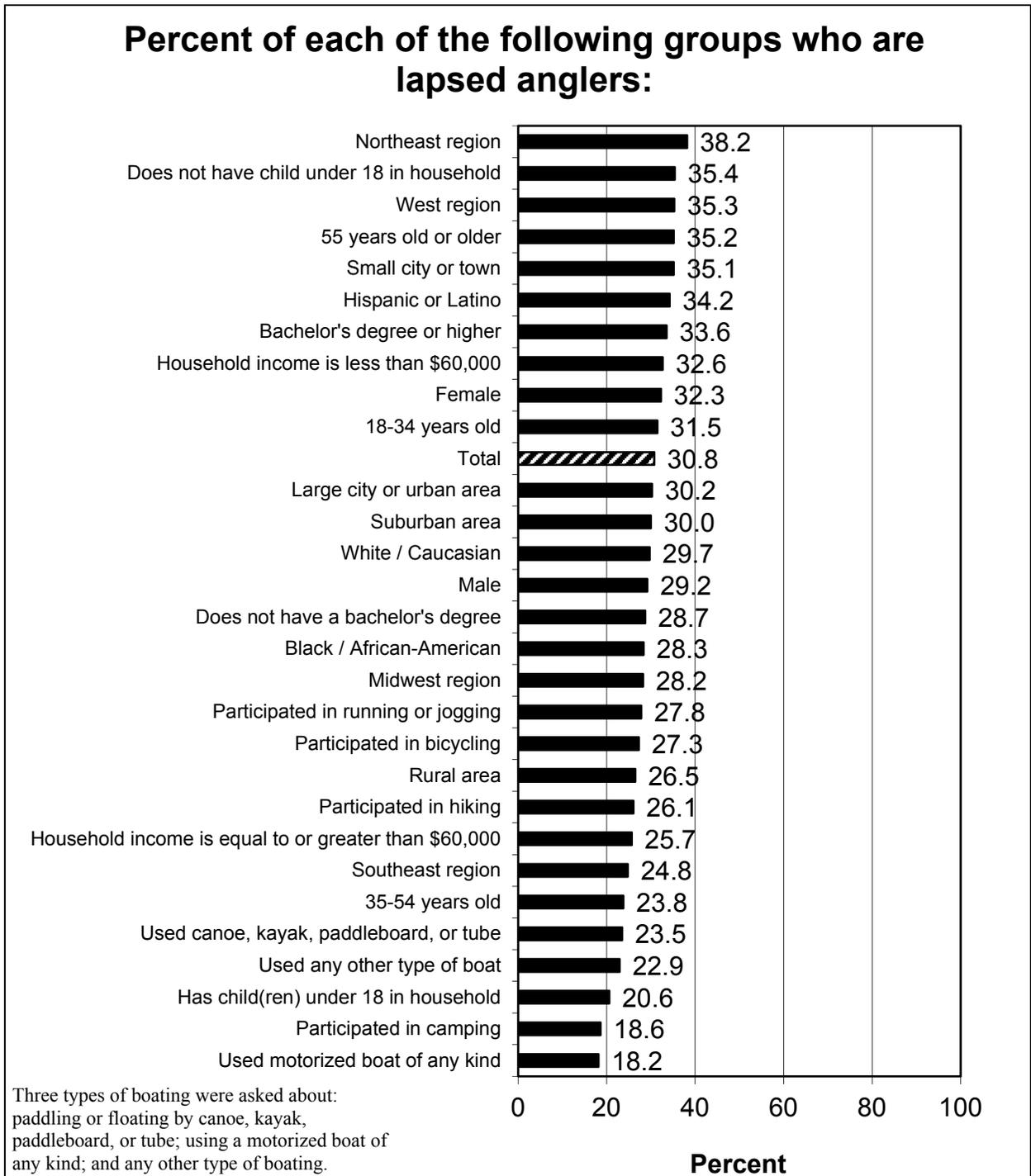
**Figure 2.5. Characteristics of Active Anglers**

- **Sporadic anglers are associated with the following: being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category (Figure 2.6). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**



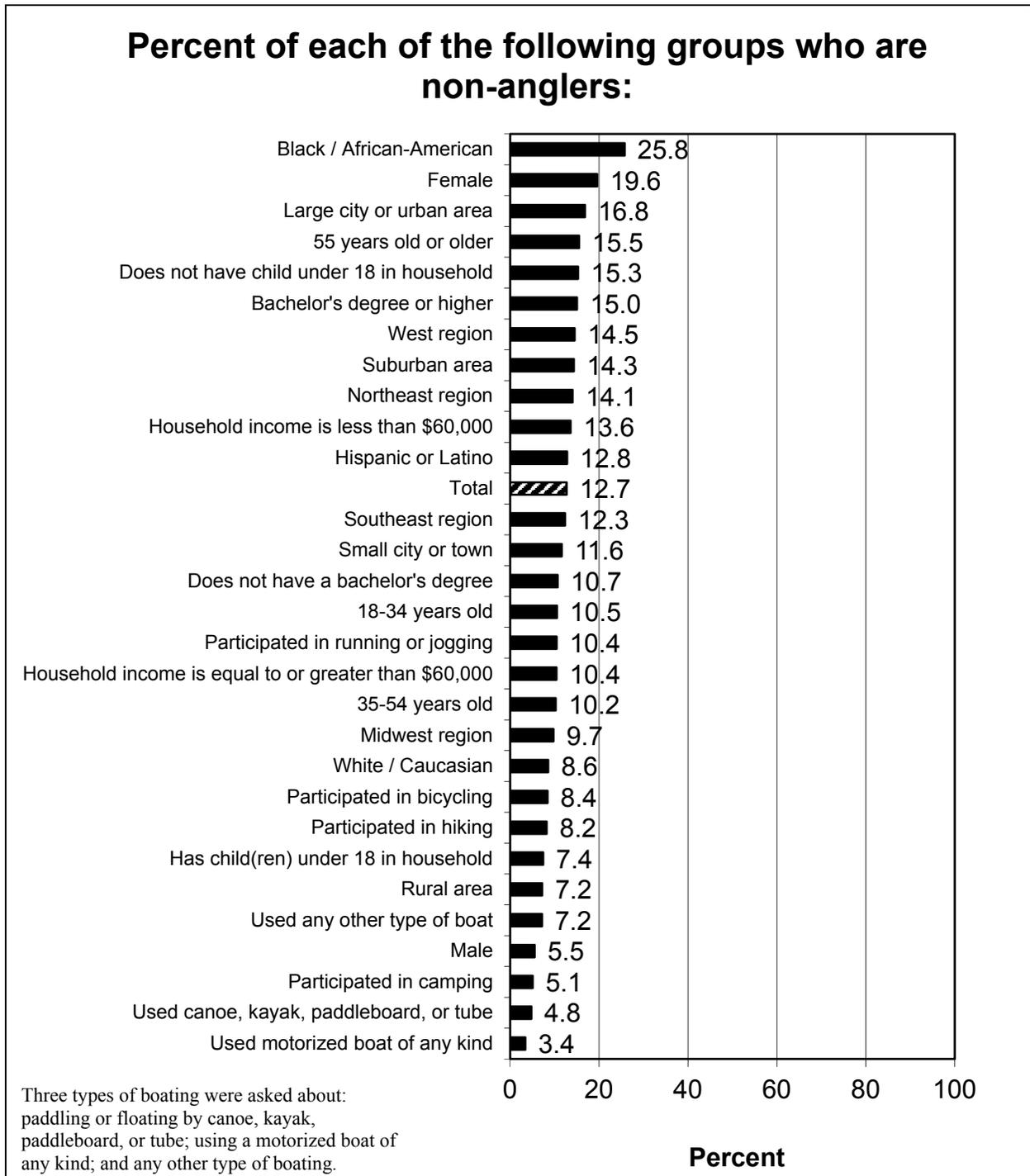
**Figure 2.6. Characteristics of Sporadic Anglers**

- **Lapsed anglers are associated with the following: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor’s degree (Figure 2.7). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**



**Figure 2.7. Characteristics of Lapsed Anglers**

- **Non-anglers are associated with the following: being ethnically black/African-American; being female; living in a large city or urban area; being in the older age category; not having children in the household; and having at least a bachelor's degree (Figure 2.8). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**



**Figure 2.8. Characteristics of Non-Anglers**

- **Freshwater fishing predominates over saltwater fishing: 6 out of 7 anglers go freshwater fishing, while just more than a third go saltwater fishing (some do both). Higher income anglers and urban anglers are particularly associated with saltwater fishing.**

The survey shows that 86% of anglers go freshwater fishing, while 38% go saltwater fishing. Anglers in the higher income bracket are more likely to go saltwater fishing than are those in the lower income bracket, and higher-income anglers are more likely to fish from a boat, compared to their counterparts. In looking at where people live, anglers from rural areas are more likely to fish in freshwater than are their counterparts. Meanwhile, urban anglers are more likely to fish in saltwater than are their counterparts.

- **The majority of anglers fish from a boat at least some of the time, more often motorboats than boats that are paddled.**

In the survey, 59% of U.S. residents go fishing from a boat at least some of the time. Demographic analyses of these boat-anglers found that male anglers are more likely to fish from a boat than are female anglers and that older anglers are more likely to fish from a boat than are younger anglers. Additionally, anglers in the higher education bracket are more likely to fish from a boat than are their counterparts in the lower education brackets. Finally, anglers from small cities/towns and rural areas are more likely to fish from a boat, relative to suburban and urban anglers.

Among those anglers who use a boat to fish, 91% use motorized boats some of the time for fishing, and 38% use boats that are paddled some of the time (29% do both).

- **Fishing is predominantly a social activity: nearly all anglers go fishing with others at least some of the time. Nonetheless, about a third sometimes fish alone. While family predominates, there are substantial numbers of anglers who fish with friends, sometimes at the exclusion of family.**

The survey shows that 96% of anglers fish with other people at least some of the time, with 66% saying that they fish almost exclusively with other people. On the other hand, 33% of anglers sometimes fish alone (although only 4% indicate that they *always* fish alone).

Those other companion anglers are predominantly family: 80% of anglers fish with a family member at least some of the time, 55% fish with friends at least some of the time (Figure 2.9). Target markets fall out of this categorization: there is one target market (80% of anglers) who fish with their family at least some of the time. A second target market, however, consists of those who fish with friends, including those who do so but not with family (18% of anglers), and those who fish with family also (38%). This group fishing with friends may likely become more important in light of demographic trends that are occurring: with families becoming more widespread geographically, there may be more anglers who did not go through the traditional “family” path to becoming an angler, and more may need to be recruited via friends.

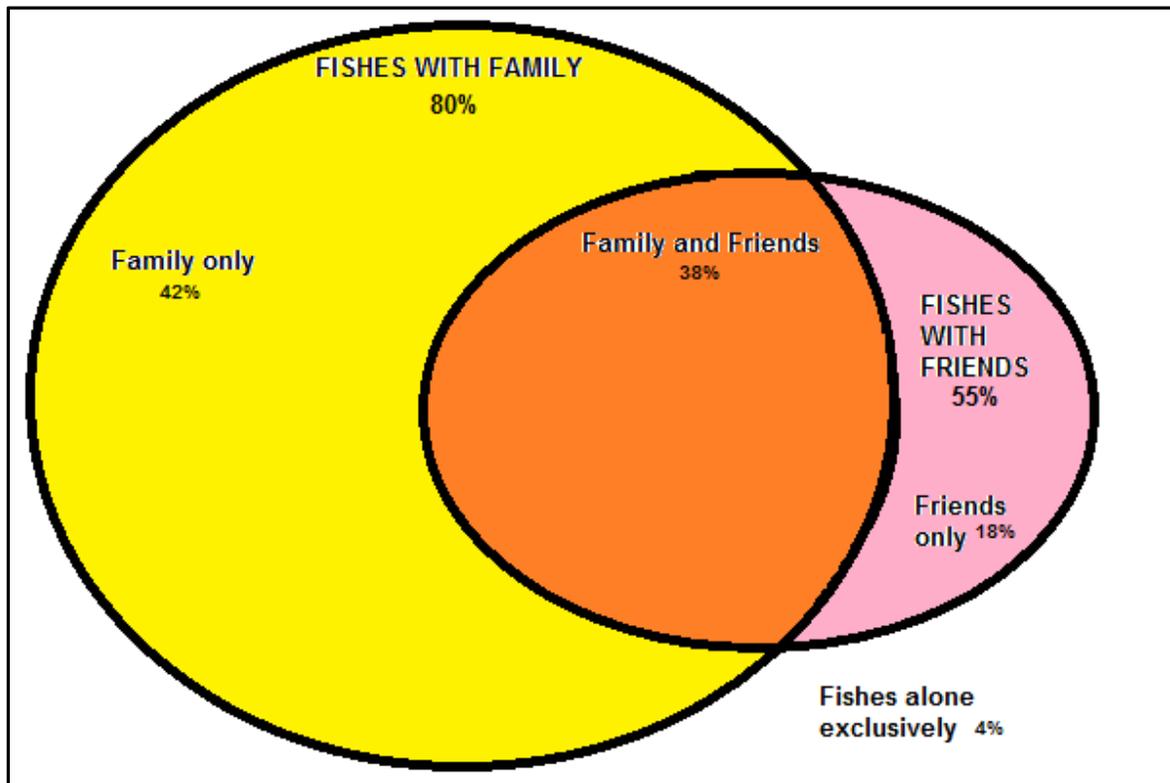


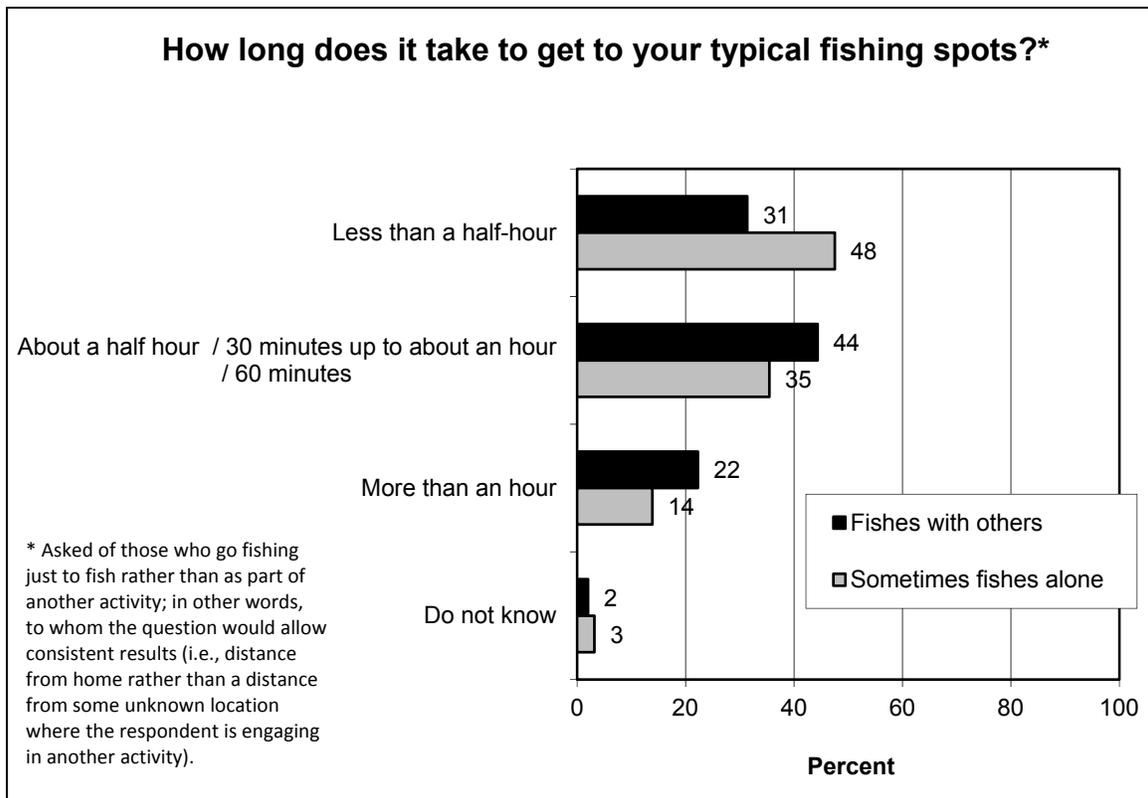
Figure 2.9. Anglers Fishing With Family and Friends

- **Although there is some value in attempting to get people to include fishing as part of vacation packages and so forth, it is important to know that fishing is more often its own activity rather than part of other activities.**

Fishing is more often done as its own activity rather than as part of other activities—in other words, more often the primary purpose of the excursion is to go fishing for 64% of anglers (defined as those who fished as an adult and now go at least rarely). However, 26% typically fish as part of other activities.

- **Typically, anglers travel no more than a half-hour to get to their fishing spot. Those who exclusively fish with others tend to travel a bit farther than those who sometimes fish alone.**

The majority of anglers who go just to fish (53%) typically travel no more than a half-hour to get to their fishing location. At other end of the spectrum, 19% typically travel more than an hour. As indicated, those who fish alone are typically going to closer places (Figure 2.10).



**Figure 2.10. Travel to Fishing Spots**

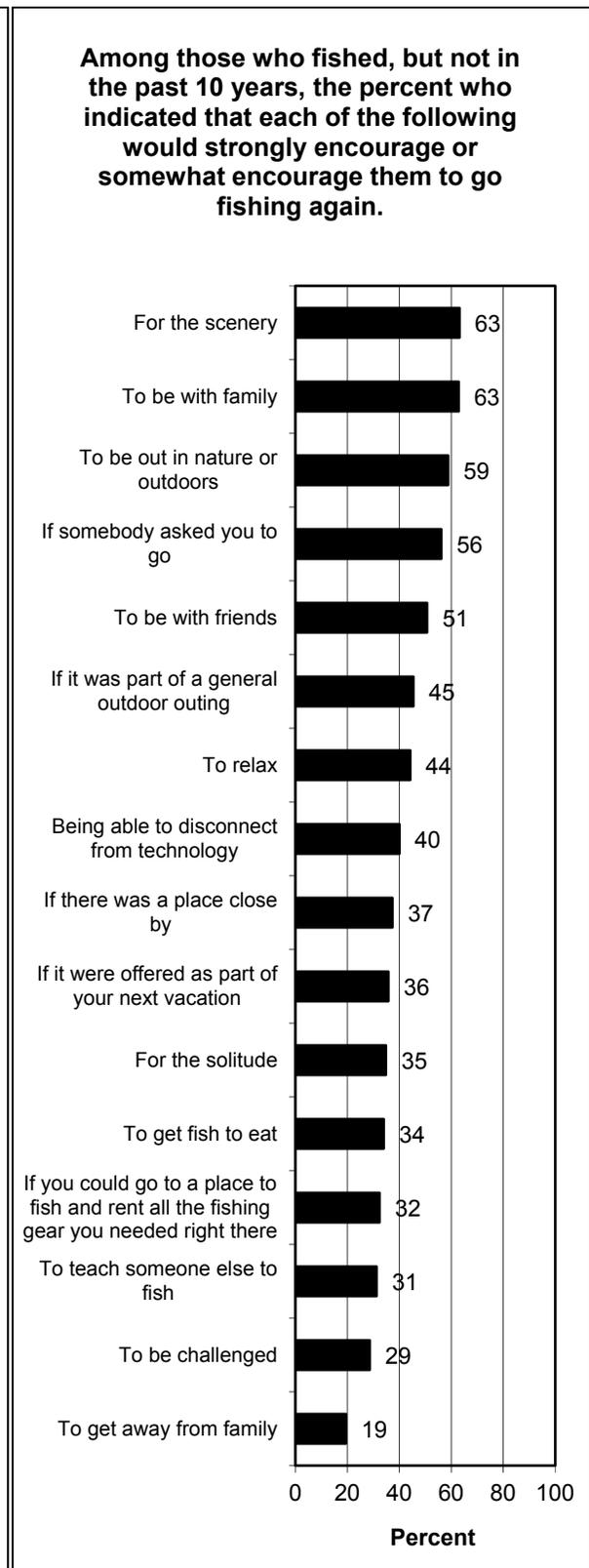
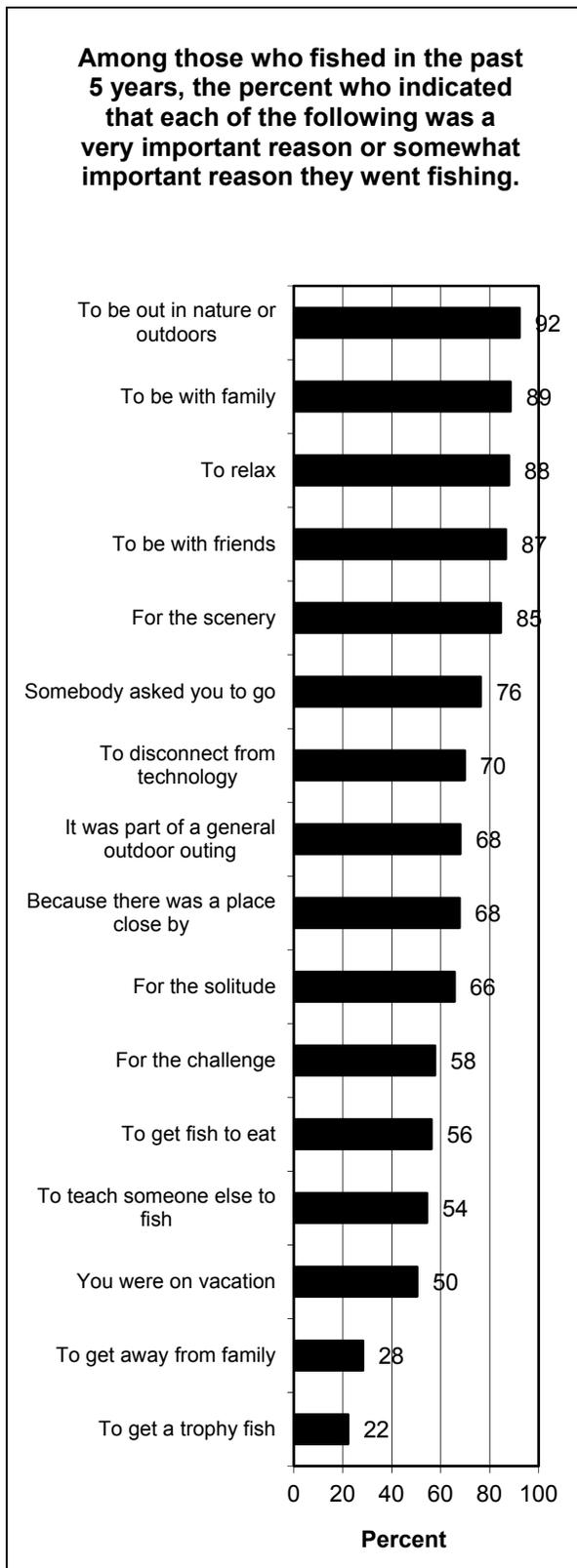
### Motivations for Fishing

- **The greatest prominence among reasons to fish are given to aesthetic and social reasons: to be out in nature and see scenery, to be with family and friends, and to relax.**

All of the above reasons have 85% or more of active anglers saying that they were *very* or *somewhat* important as reasons to go fishing (Figure 2.11).

- **The most effective things to encourage fishing include those same aspects—nature, scenery, family, and friends—but also include being asked to go fishing.**

Lapsed anglers were asked about things that would encourage them to go fishing again; five of them are in the top tier, all with a majority of lapsed anglers saying it would *strongly encourage* or *somewhat encourage* them to fish again: for the scenery (63%), to be with family (63%), to be out in nature or outdoors (59%), if somebody asked them to go (56%), and to be with friends (51%) (Figure 2.12).



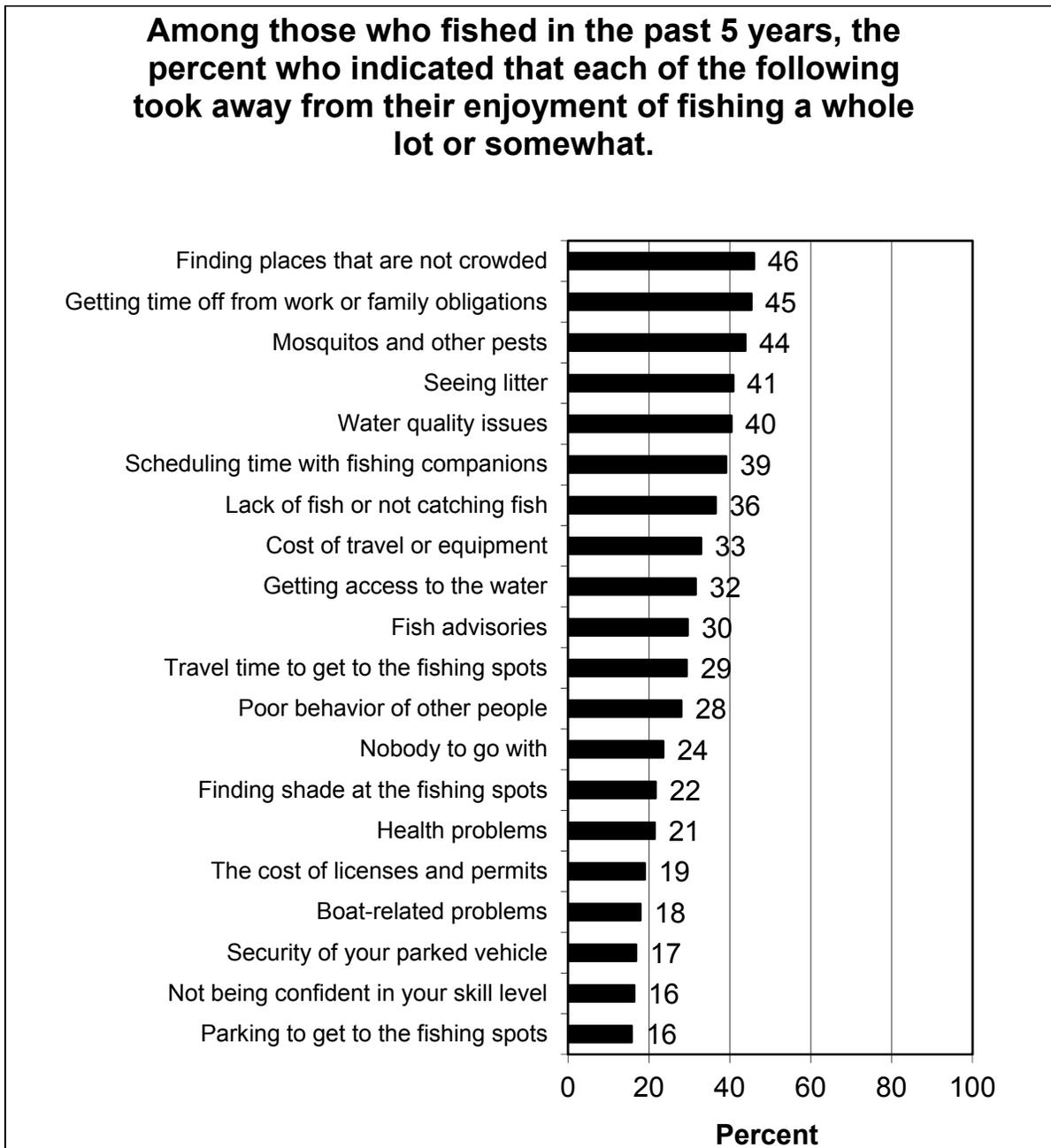
**Figure 2.11. Reasons to Go Fishing Among Active Anglers**

**Figure 2.12. Things That Would Encourage Fishing Participation Among Lapsed Anglers**

### Constraints to Fishing Participation

- **Among active anglers, access, litter, and water quality are important dissatisfactions over which agencies and fishing industry have some control.**

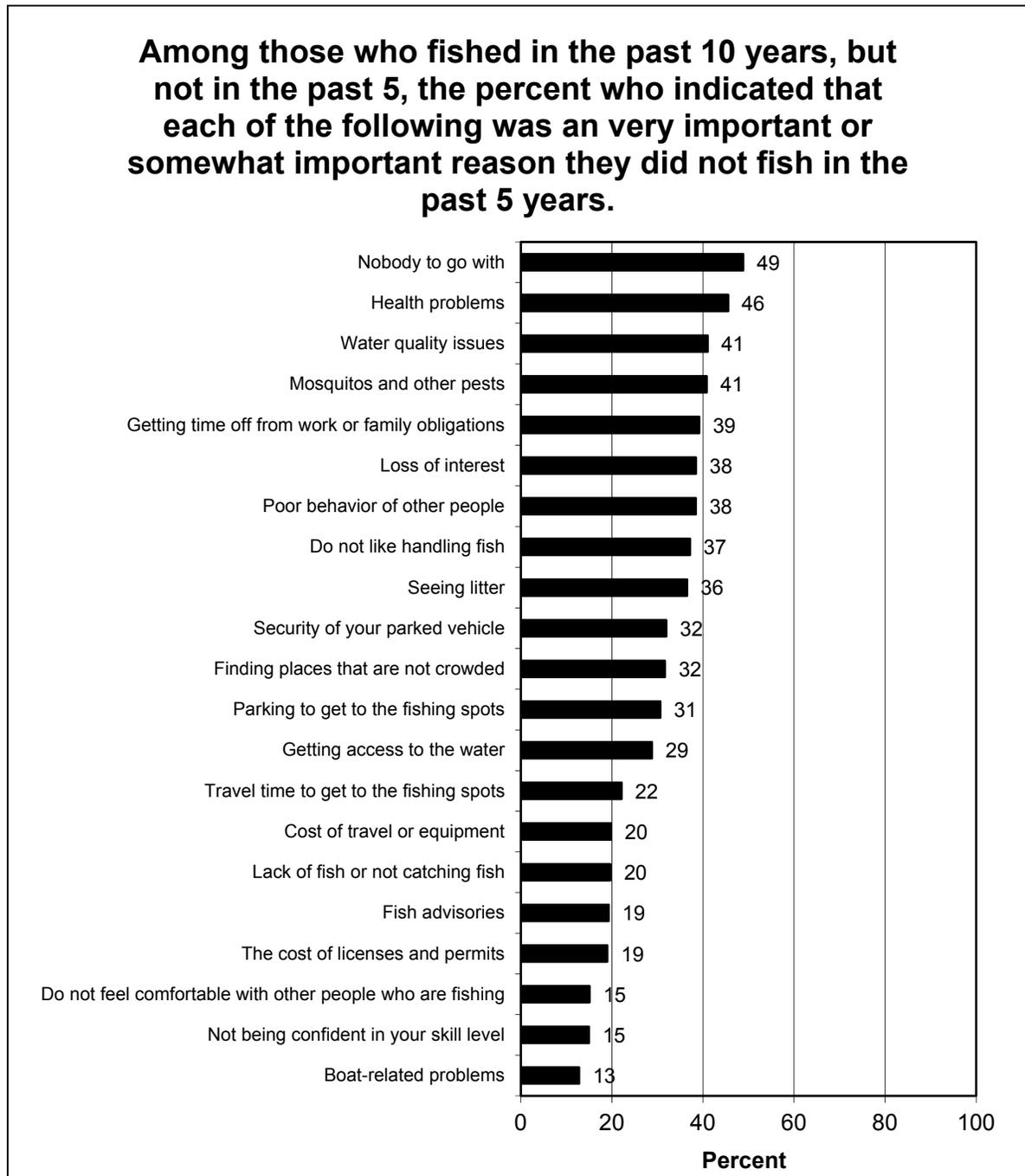
Among active anglers (those who fished in the past 5 years), access, litter, and water quality are important dislikes over which the agency and fishing industry have some control (lack of time and mosquitos/pests were other top items, but they are mostly out of the agency's or industry's realm) (Figure 2.13).



**Figure 2.13. Dissatisfactions With Fishing Over the Past 5 Years**

- **The most important reasons that sporadic anglers had not fished in the previous 5 years were not having anybody to fish with and having health problems.**

Among anglers who fished in the past 10 years but not the past 5, the two reasons above led the list (Figure 2.14). Other issues included water quality and pests (which were dislikes among active anglers previously discussed).

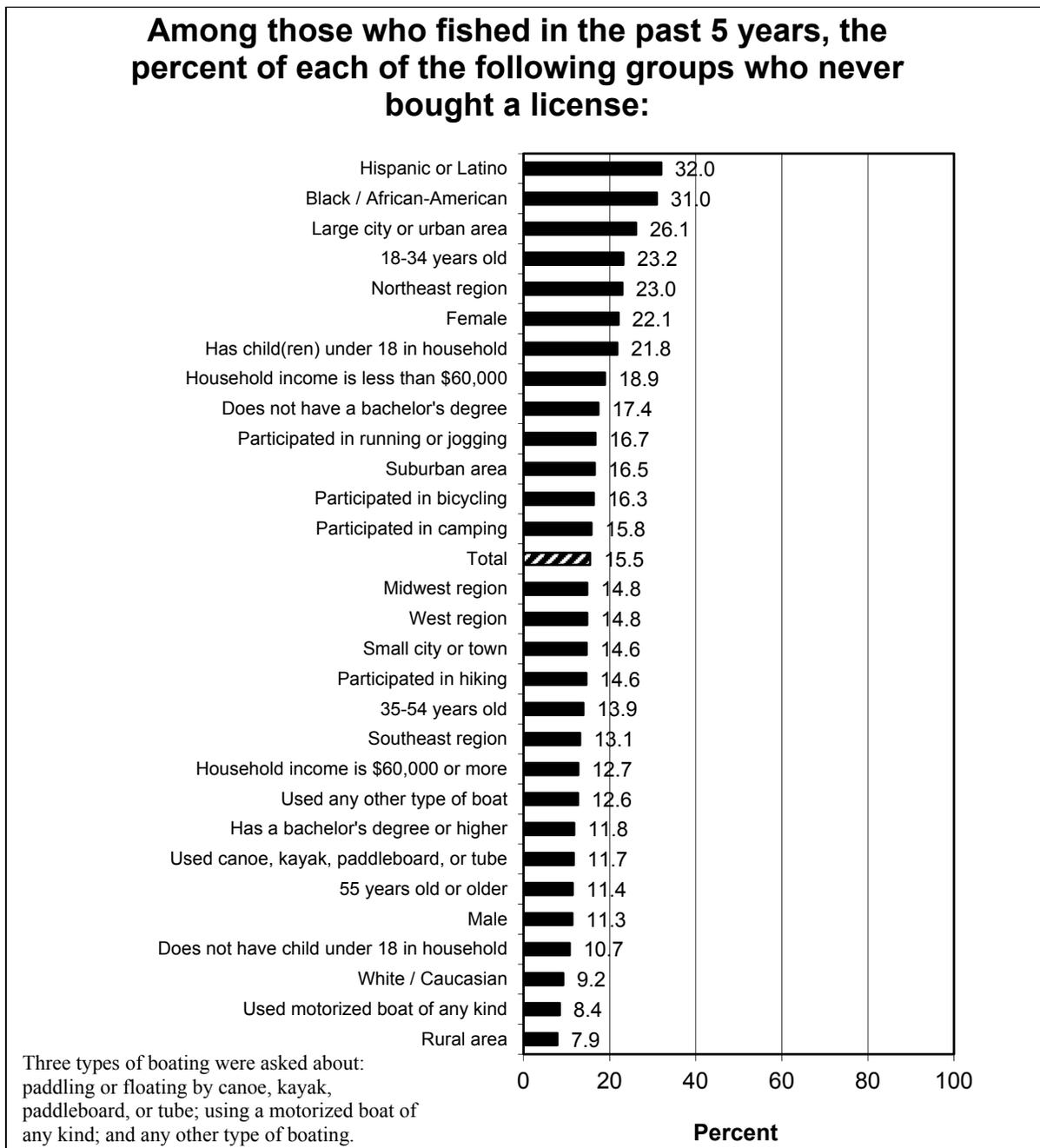


**Figure 2.14. Constraints to Fishing Participation Over the Past 5 Years**

### License Purchasing Preferences

- About 1 in 7 active anglers have never purchased a fishing license. These groups that have a higher propensity to *not* purchase include Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

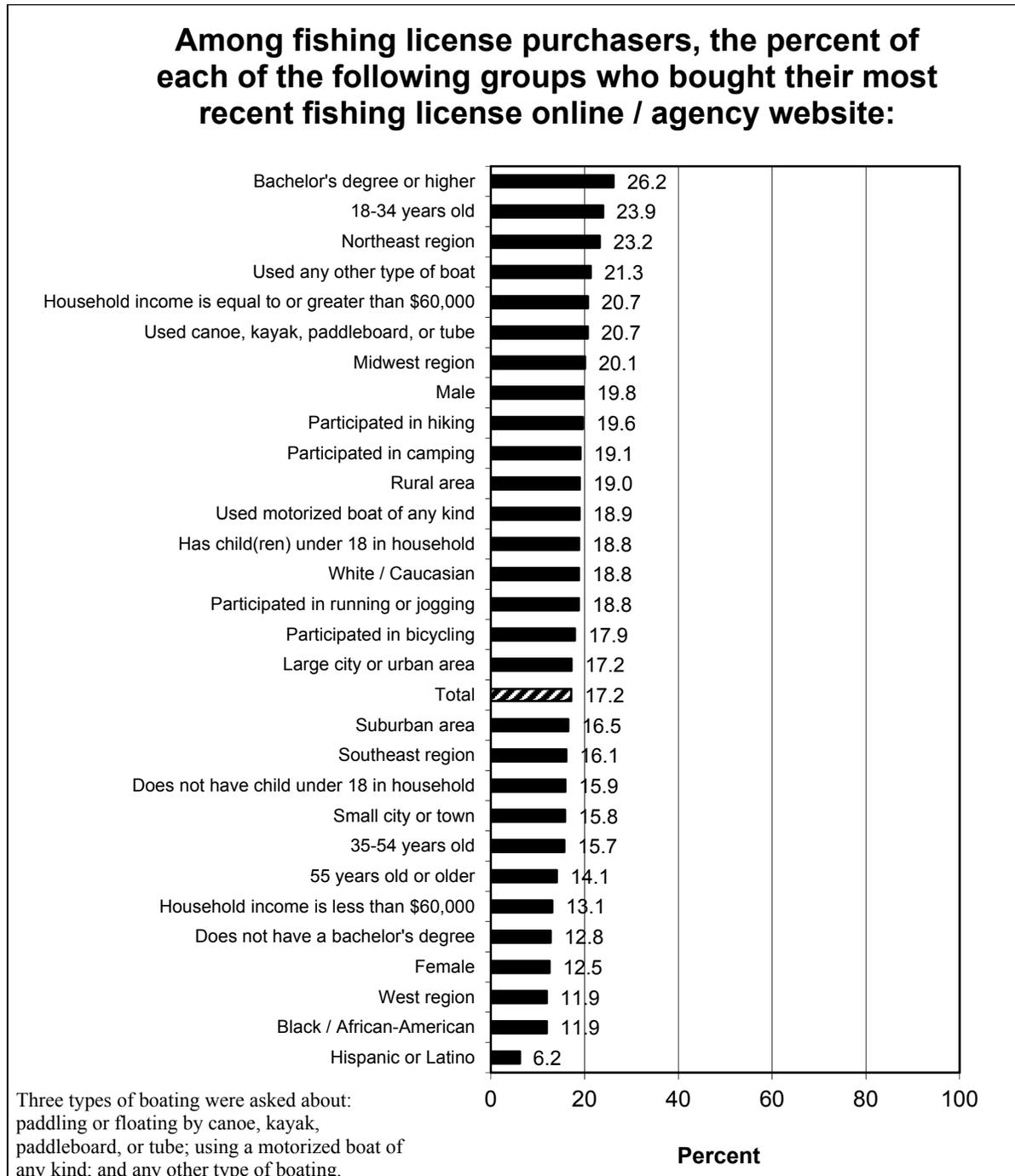
Among active anglers, 15% indicated that they have never purchased a fishing license. Figure 2.15 shows the characteristics associated with those people.



**Figure 2.15. Characteristics of Active Anglers Who Do Not Purchase Fishing Licenses**

- **Among fishing license purchasers, about 1 in 6 purchased their most recent license online. These online purchasers are associated with being in the higher education bracket; young; from the Northeast region; and in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

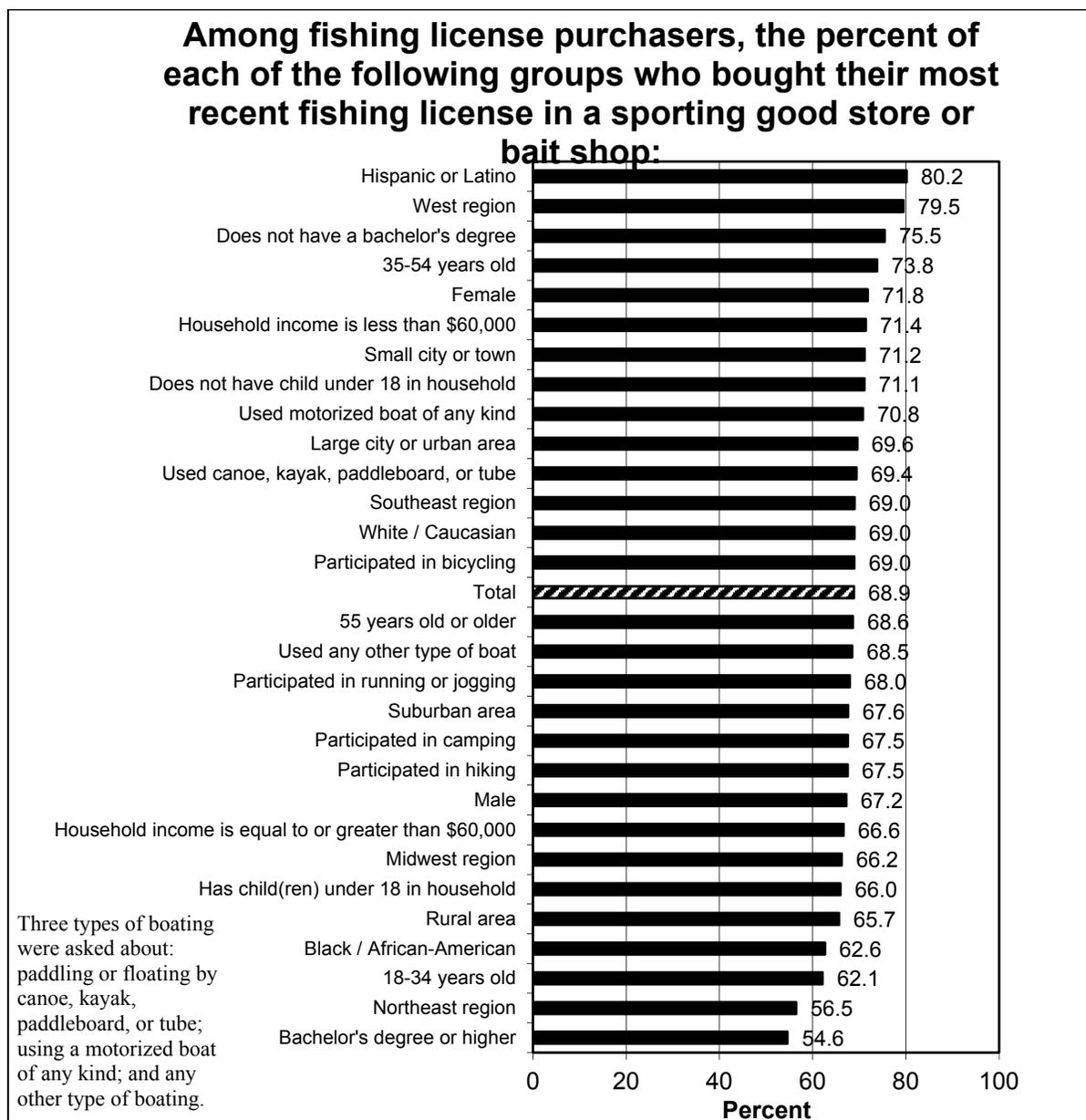
The analysis of online purchasers is shown in Figure 2.16. Overall, 17.2% of license purchasers bought their last license online, shown by the striped bar. Those groups above the striped bar are more likely to have purchased online, relative to license purchasers overall.



**Figure 2.16. Characteristics of Online Fishing License Purchasers**

- **A target market consists of in-store license purchasers: about two-thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store. These in-store purchasers are associated with being ethnically Latino; from the West region; in the lower income category; in the middle age bracket; female; in the lower income category; from a small city or town; and without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

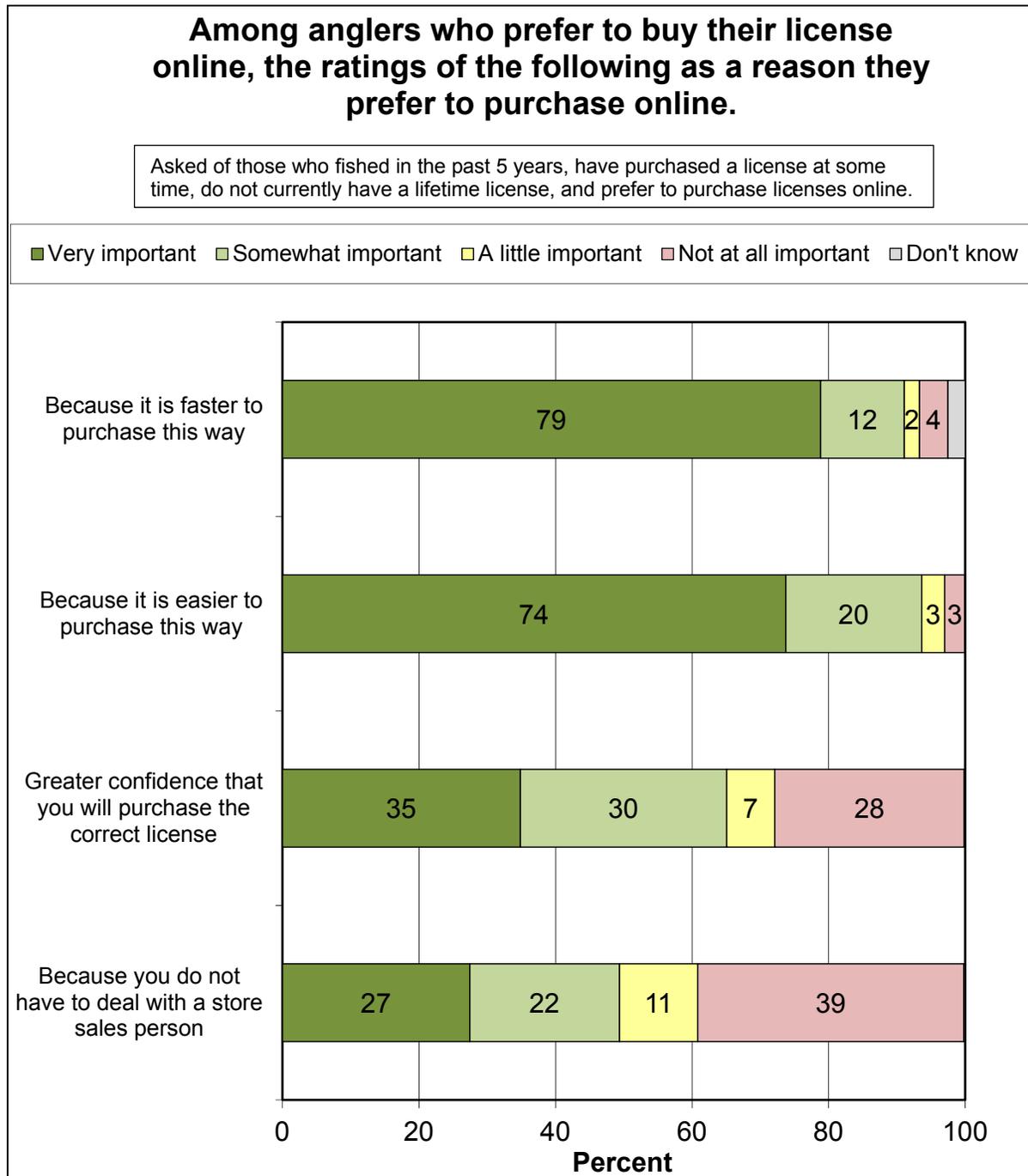
The analysis of in-store purchasers is shown in Figure 2.17. Overall, 68.9% of license purchasers bought their last license in a bait store or sporting goods store, shown by the striped bar. Those groups above the striped bar are more likely to have purchased in a store, relative to license purchasers overall.



**Figure 2.17. Characteristics of In-Store Fishing License Purchasers**

➤ **The speed and ease of purchasing are the top reasons for preferring online fishing license purchasing.**

Those who prefer online purchasing give high ratings to the speed and ease of the purchase as reasons for preferring online (with 79% saying its speed is *very* important and 74% saying its ease is *very* important) (Figure 2.18).



**Figure 2.18. Reasons for Preferring Online Purchasing**

- **For in-store fishing license purchasers, having a hard-copy license, being in the store anyway, and the ease of purchase are the top reasons for preferring in-store purchasing. For some, perhaps a clerk’s help makes for an easy purchase.**

Those who prefer in-store purchasing give high ratings to having a hard copy of the license (although an online purchase in at least some states allow for a hard copy to be printed; it may be that some anglers, when they think of online purchasing, are not aware of this) (Figure 2.19). The next most highly rated reason was that they will be in the store anyway to get other things, and just below that is the ease of purchase. It may be that for some people it is easier to have a store clerk’s help than to have to personally choose the correct selections online.



**Figure 2.19. Reasons for Preferring In-Store Purchasing**

- The survey asked about four possible renewal options; the most popular would be an email reminder that includes a link to the license purchase webpage. In the middle tier are a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage.

As shown in Figure 2.20, the three above are the most popular; there is less interest in an auto renewal service connected to a credit card.

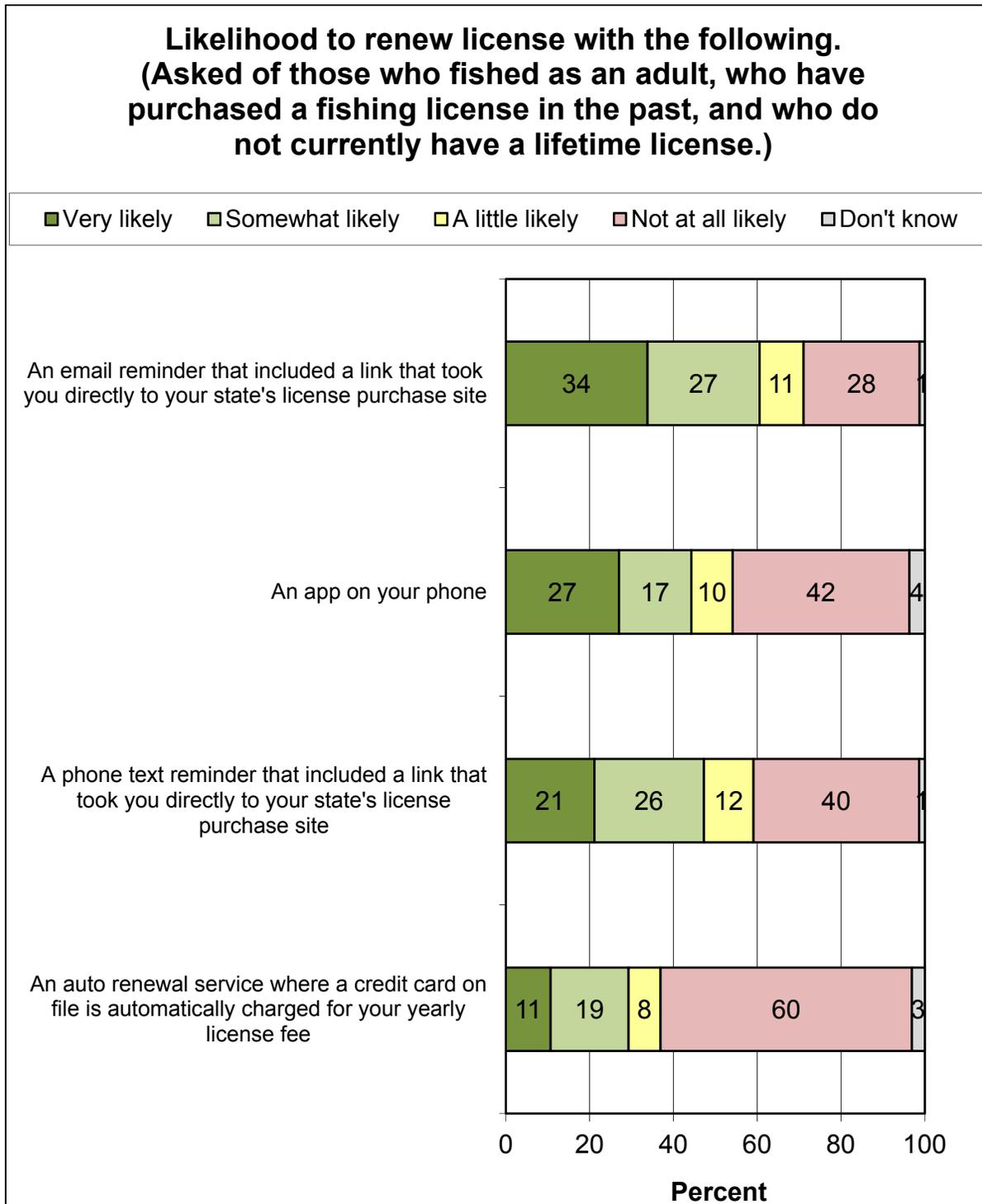
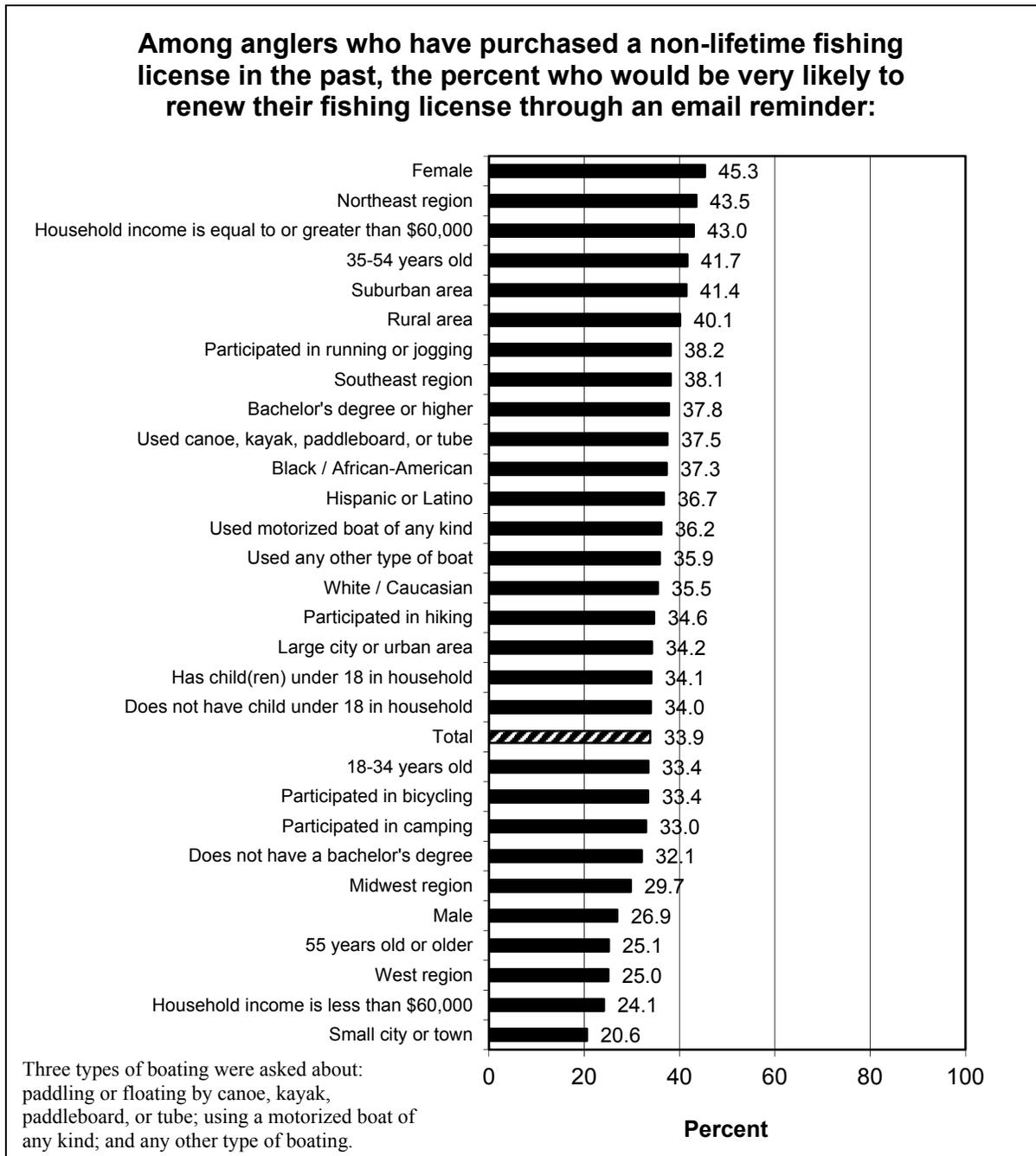


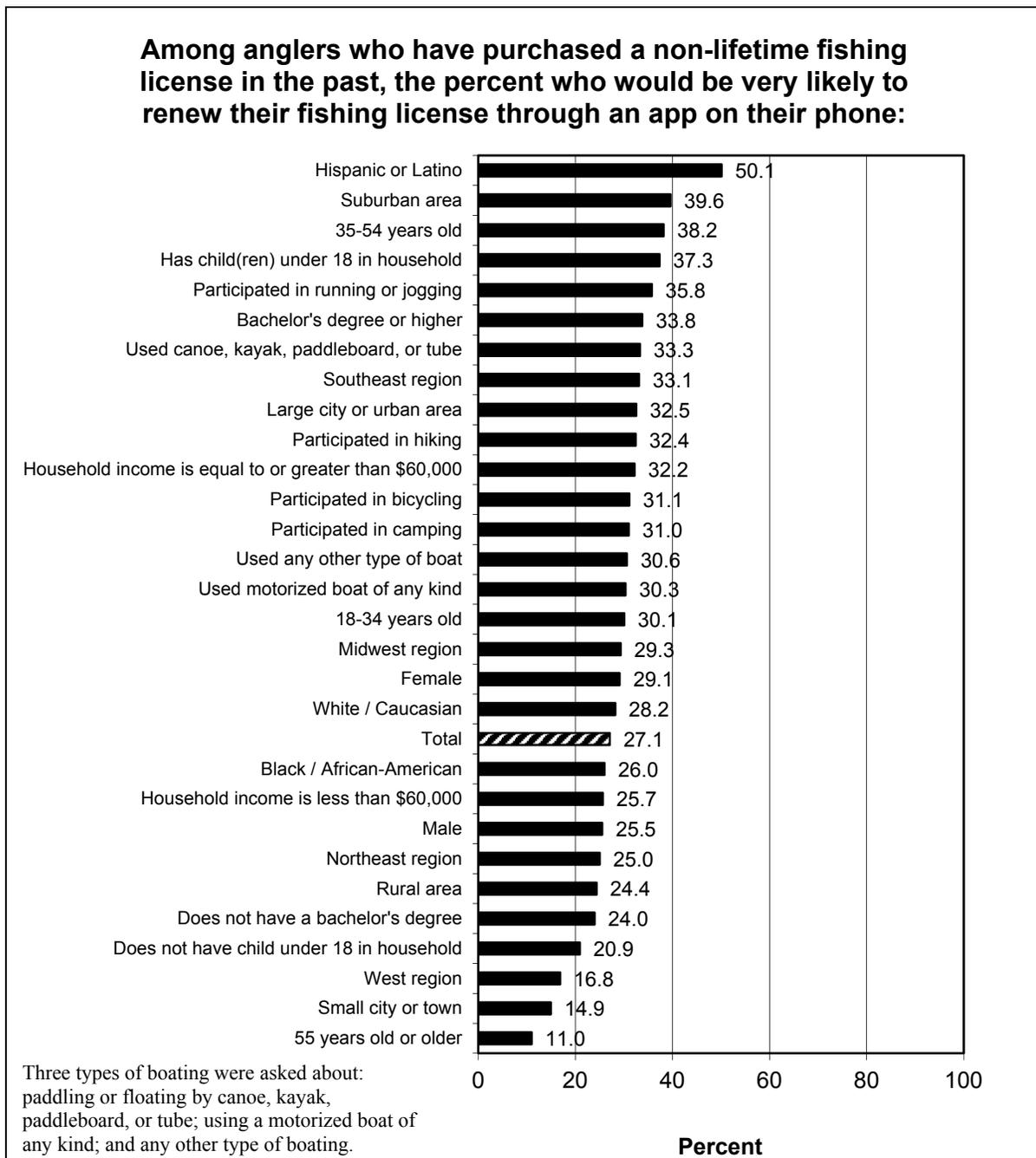
Figure 2.20. Likelihood to Renew License Using Various Technologies

- Those who would be very likely to renew their license through an email reminder that includes a link to the license purchase webpage are associated with being female; living in the Northwest region; being in the higher income category; being in the middle age group; and living in a suburban or rural area (Figure 2.21). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)



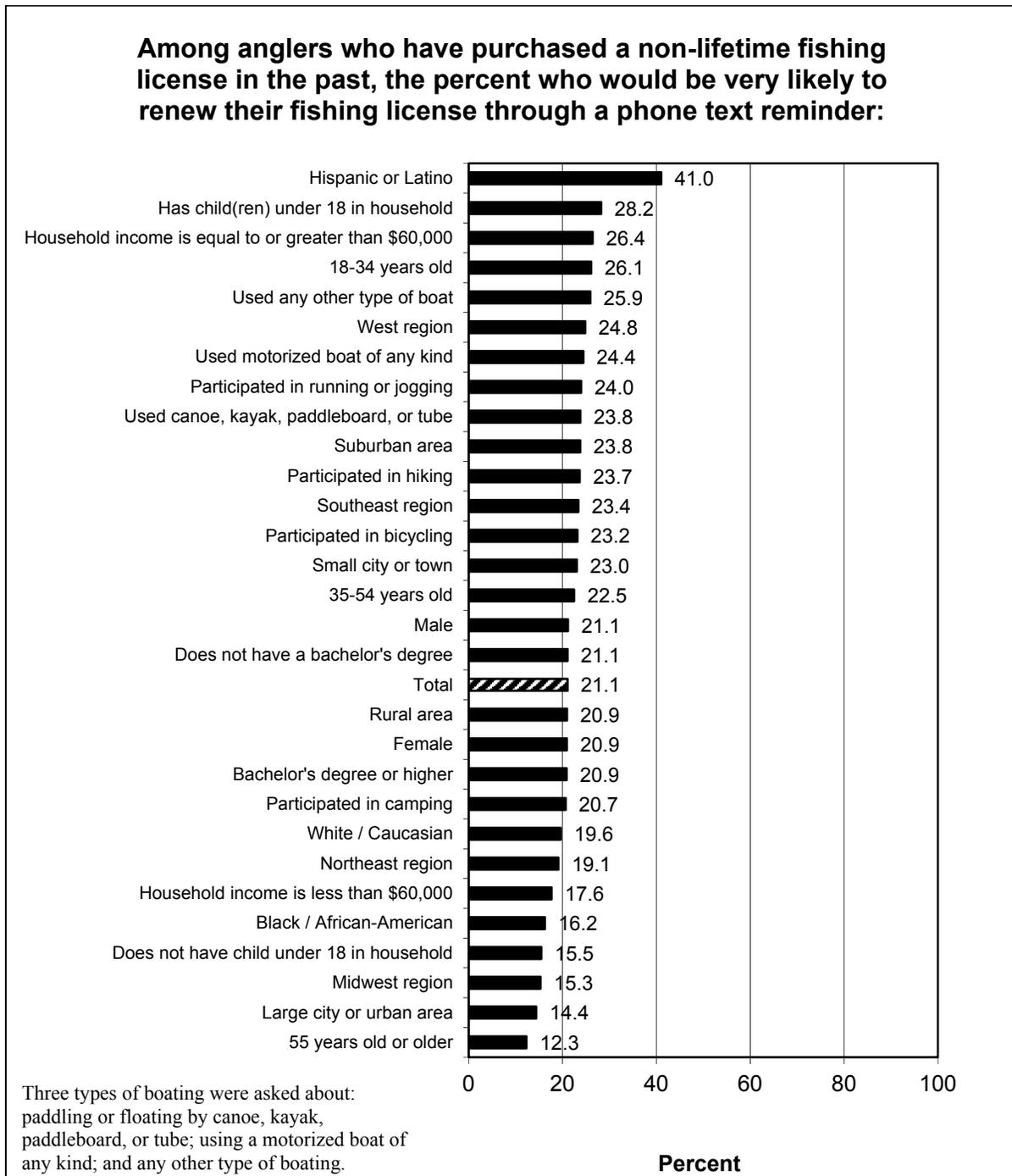
**Figure 2.21. Characteristics of Those Who Would Renew Through an Email Reminder**

- Those who would be very likely to renew their license through an app on their phone are associated with being ethnically Latino; living in a suburban area; being in the middle age group; having children in their household; engaging in running/jogging; and having at least a bachelor's degree (Figure 2.22). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)



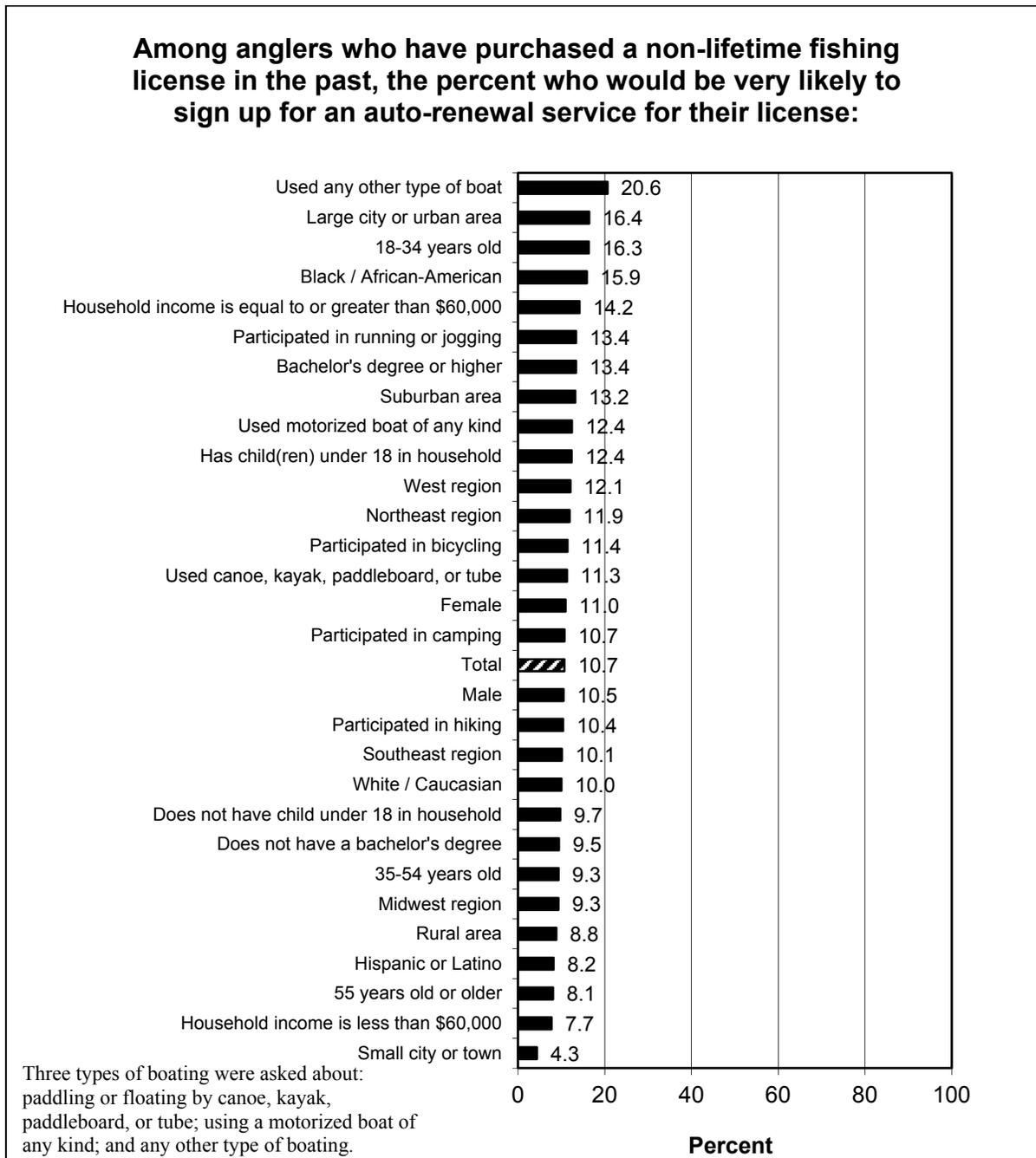
**Figure 2.22. Characteristics of Those Who Would Renew Through an App on Their Phone**

- Those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage are associated with being ethnically Latino; having children in the household; being in the higher income category; being in the younger age group; participating in boating; and being from the West region (Figure 2.23). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)



**Figure 2.23. Characteristics of Those Who Would Renew Through a Phone Text Reminder**

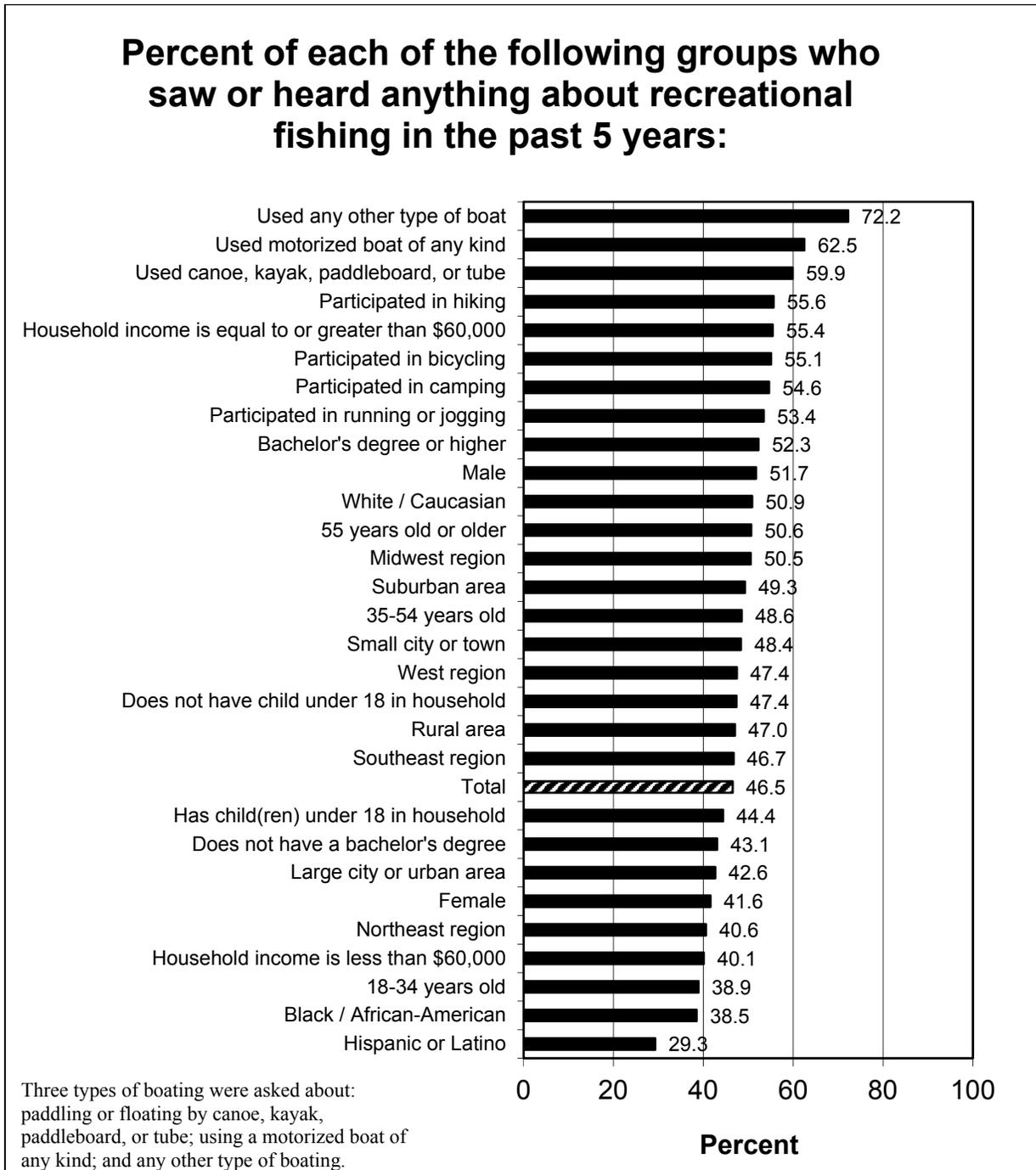
- Those who would be very likely to renew their license through an auto renewal service attached to their credit card are associated with living in a large city/urban area; being in the younger age category; being ethnically black/African-American; having a household income in the higher category; participating in running/jogging; having at least a bachelor's degree; and living in a suburban area (Figure 2.24). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)



**Figure 2.24. Characteristics of Those Who Would Renew Through an Auto Renewal Service**

### Hearing and Seeing Information About Fishing

- **Just under half of U.S. residents say that they heard or saw something about recreational fishing in the previous 5 years. They are associated with boating of any kind; participation in any other outdoor recreation, particularly hiking; having a household income in the upper category; having at least a bachelor’s degree; being male; being ethnically white; and being in the older age category (Figure 2.25). (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**



**Figure 2.25. Characteristics of Those Who Saw/Hear About Recreational Fishing**

- **Other than friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). A second tier of sources consists of social media and retailers—the next most common sources of information about recreational fishing.**

Facebook dominates in social media, although YouTube and Instagram are sources of information about recreational fishing, as well. Most of the other sources mentioned (e.g., agencies, non-profits, retailers) have online presence through Facebook, but other content on Facebook would include people's personal photographs of fishing expeditions.

Regardless of the source (with an exception), about half of the people who heard/saw information on the given source indicated in the survey that the information was not wholly positive (although mostly positive). The exception is the information disseminated by retailers and agencies, which seek to spur participation—it would be counterproductive for them to have outreach that criticizes fishing.

### **Familiarity With State Agency Websites**

- **About a quarter of U.S. residents are very or somewhat familiar with their state agency's website. Site visitors most often were seeking license/permit/tag information, regulations and season dates, and fishing locations.**

### **Outreach**

- **About a third of U.S. residents are interested in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth.**

There was some interest expressed in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and other topics: 22% indicated being very likely to use such an app, and another 15% were somewhat likely to use such an app (a sum of 37%).

- **A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so) or had tried other self-teaching methods (20%).**
- **Those groups most likely to watch online videos are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area.**

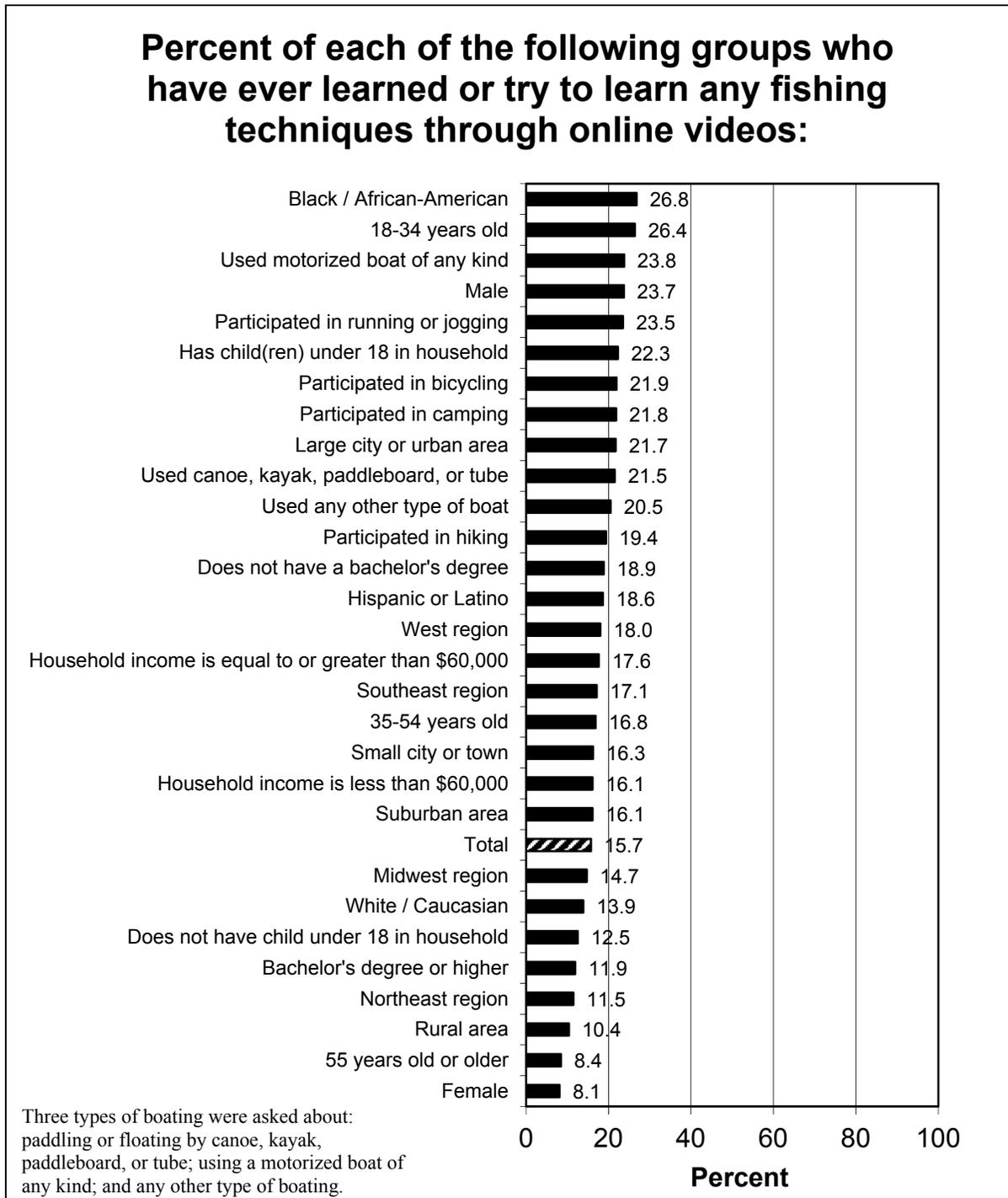
The analysis for this is shown in Figure 2.26.

- **Males and younger people are more likely than their counterparts to do other self-teaching methods.**

Self-teaching methods are more often done by males (31%) than females (9%), and they are more often done by younger people than older people (26% of those 18 to 34 years old, compared to 19% of those 35 to 54 years old and 18% of those 55 years old and older). The differences are not marked regarding education level, residential area, or income on this survey question.

- **Outreach in the form of direct contact from the state agency, including via email and in person, reaches about 1 in 7 residents of the U.S.**

Regarding being contacted by the state agency, 14% of U.S. residents say that they were contacted by their state’s fish and wildlife agency. Among those contacted, in-person contact is quite common, with 39% being contacted this way. Other common forms of contact include email/listservs/e-newsletters and direct mail letters and newsletters.



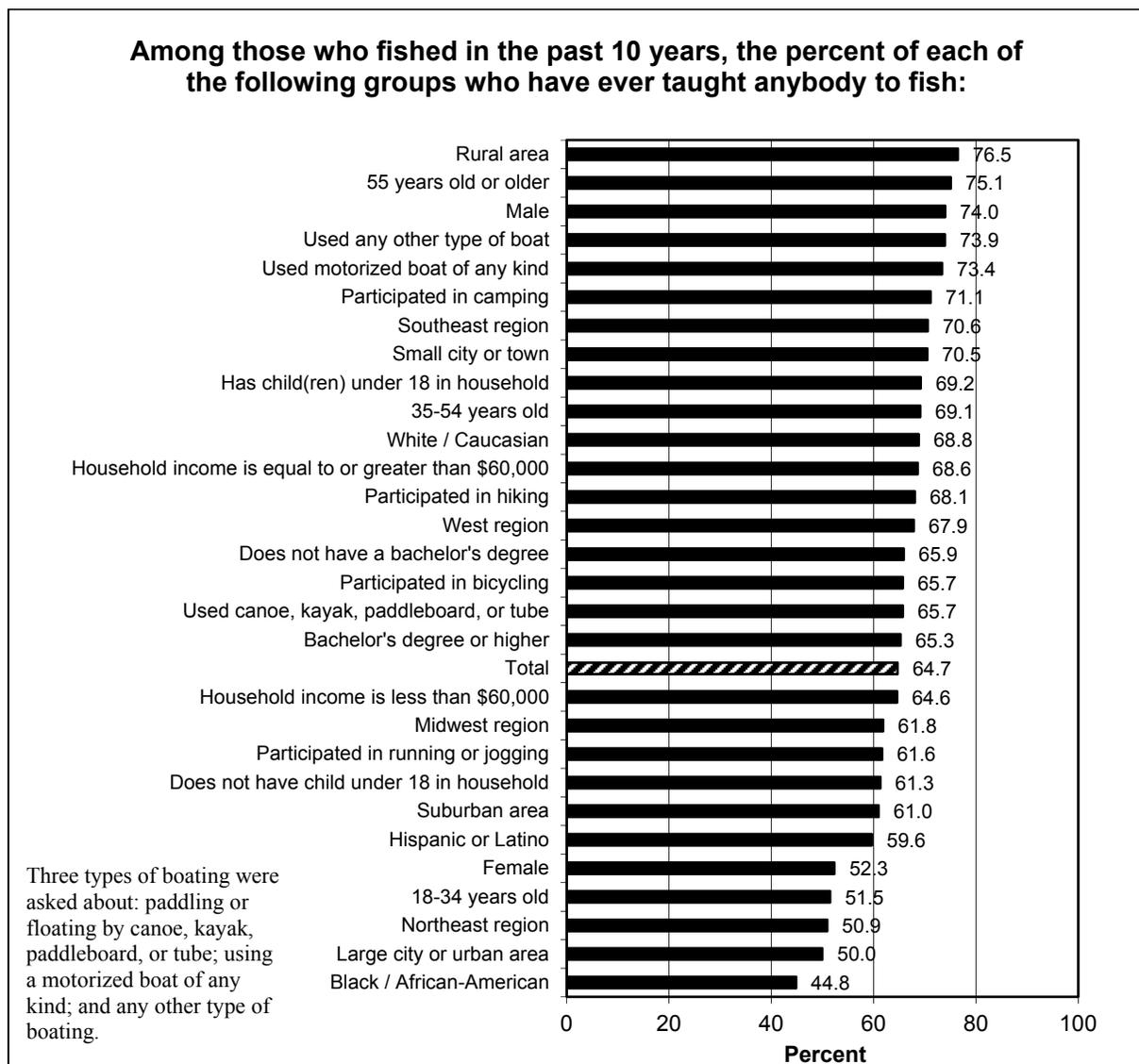
**Figure 2.26. Characteristics of Those Who Watched Online Videos to Learn Fishing Techniques**

## Mentoring and Being Mentored

- **Anglers are engaging in mentoring: about two-thirds of anglers are passing along the tradition, engaging in mentoring at some time. Those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Active and sporadic anglers (i.e., those who had been fishing within the previous 10 years) were asked the question: 65% say that they have taught someone to fish. Most commonly, those whom the mentors taught were their sons (57% of those who taught others) or daughters (48%). However, about a quarter of those mentors indicated teaching a friend or a friend's child—in other words, a non-family member. This type of mentoring may become more important in coming years to recruit people into fishing in a non-traditional way. (For this question, no timeframe was given; it asked if they had “ever” taught someone to fish.)

Figure 2.27 shows the characteristics associated with those who mentor.

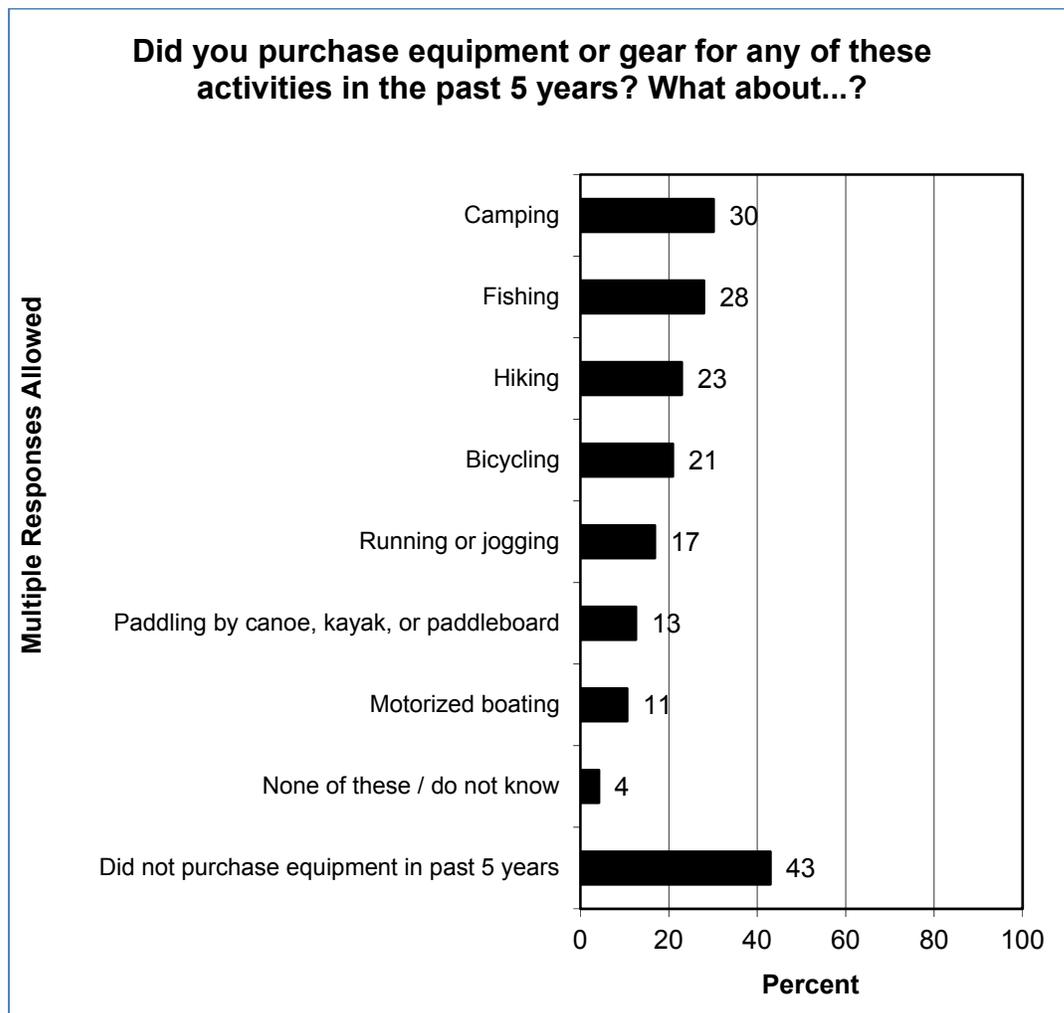


**Figure 2.27. Characteristics of Those Who Have Mentored an Angler**

## Purchase of Fishing Equipment

- A little over half of U.S. residents bought outdoor recreation equipment of some kind in the previous 5 years, and fishing equipment was bought by about a quarter of U.S. residents.

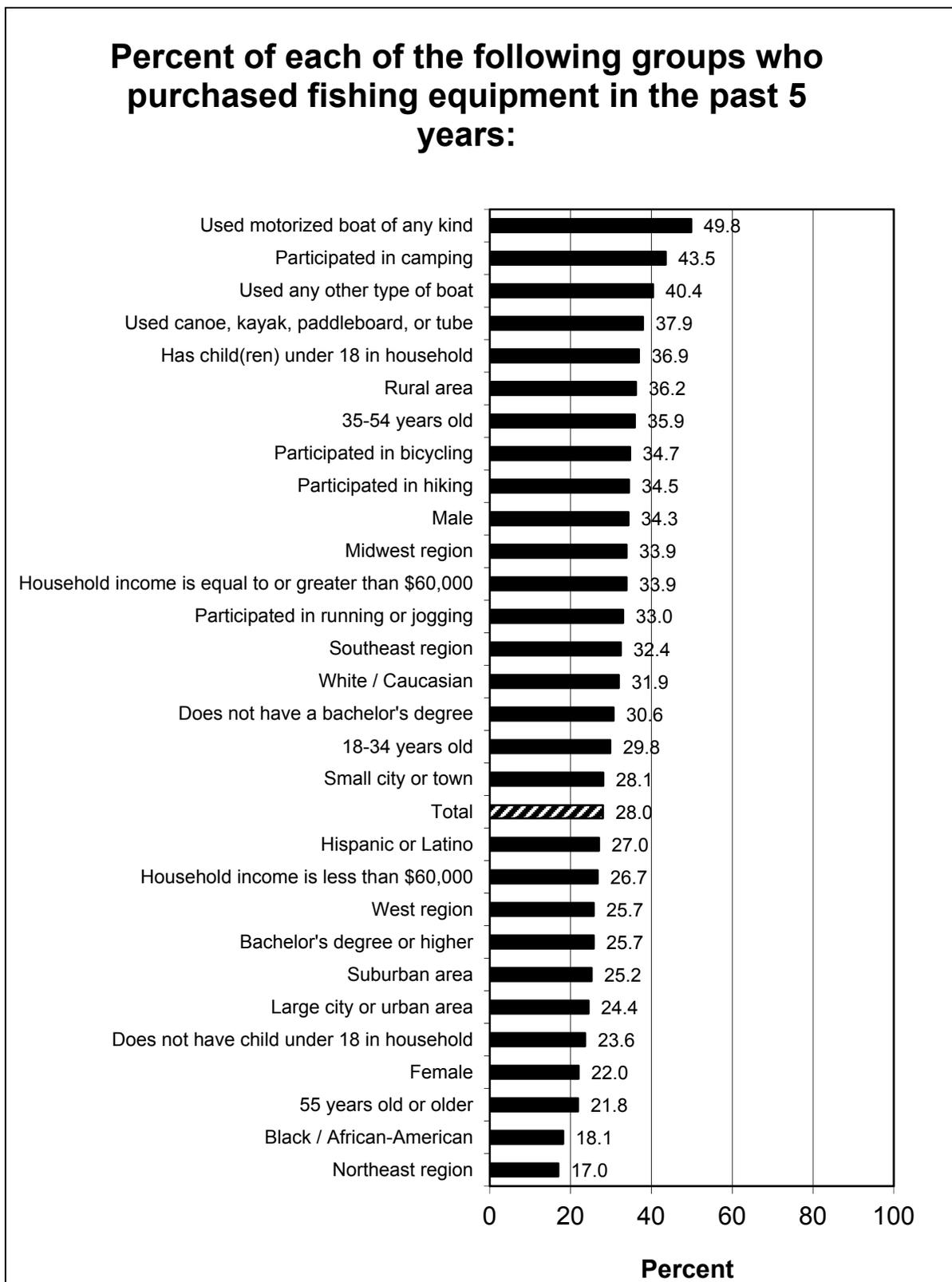
Camping and fishing equipment top the list of the seven types of equipment asked about, with 30% of U.S. residents purchasing some type of camping equipment in the previous 5 years, and 28% purchasing fishing equipment (Figure 2.28).



**Figure 2.28. Purchase of Outdoor Recreation Equipment**

- Fishing equipment purchasers are associated with participation in boating (particularly motorboating); participation in camping; having children in the household; living in a rural area; being in the middle age category; participation in bicycling and hiking; being male; and living in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

The analysis for this is shown in Figure 2.29.



**Figure 2.29. Characteristics of Fishing Equipment Purchasers**

- **Approximately three quarters of those who purchased new fishing equipment bought all of it in a store, while about a quarter bought some of it online. Most shoppers do at least *some* of their purchasing in a store, as a very low percentage—2% at most—purchase *all* their fishing equipment online.**

Two questions were asked: the first asked about amount of purchases in-store and the second asked about purchases online. The match between the two was not exact (because people can purchase new equipment from other people or through mail catalogues or at expos/shows), but it was very close, as shown in Table 2.2. The analysis suggests that from 73% to 76% purchase all new fishing equipment in a store, from 21% to 25% purchase some in-store and some online, and no more than 2% purchase all of it online.

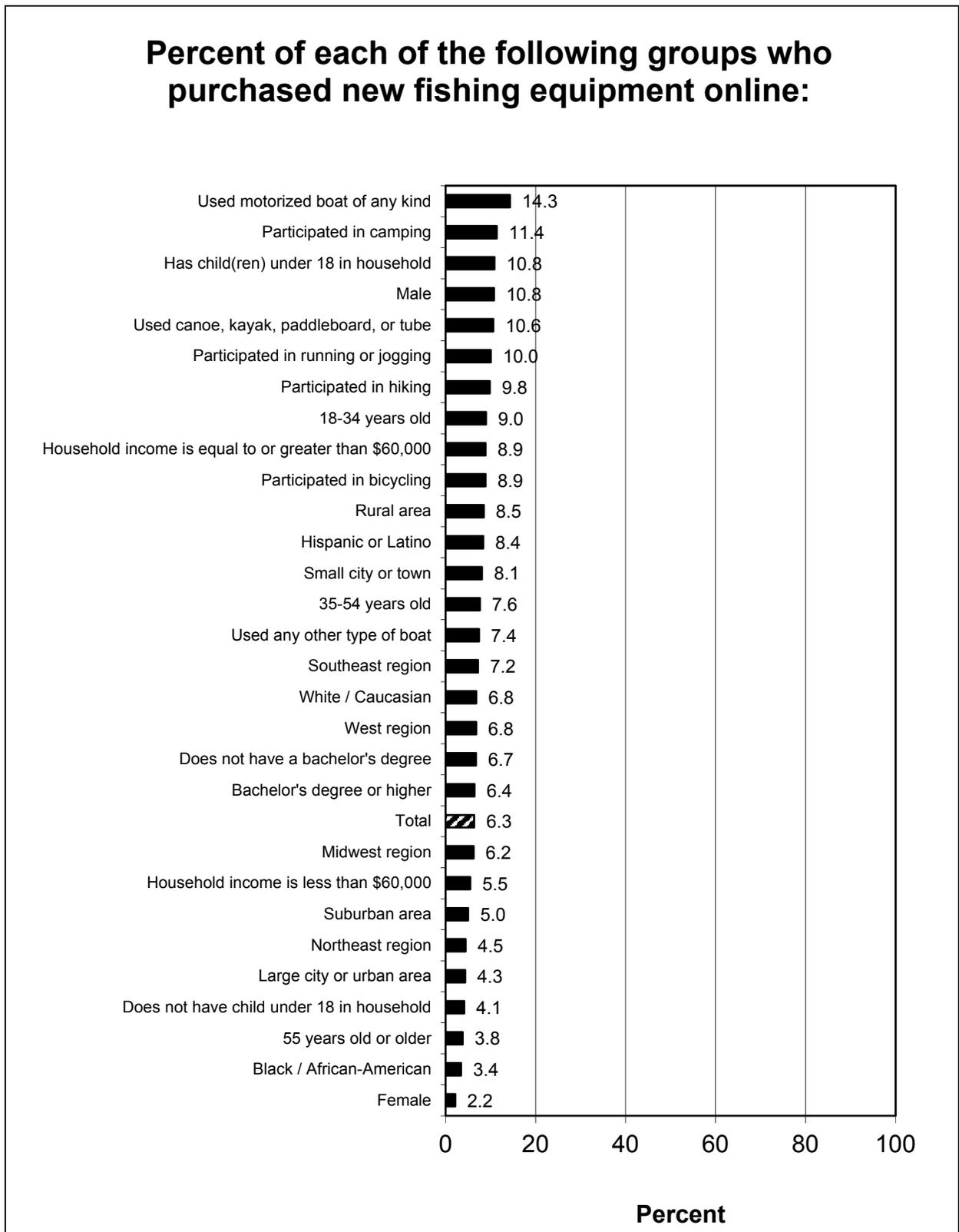
	Percent purchasing in-store	Percent purchasing online	
All in-store	73	76	None online
Some in-store	25	21	Some online
None in-store	1	2	All online

Note that the survey had previously asked about the purchase of new or used equipment, as the follow-up questions were to be administered only to those who purchased new equipment rather than used. Among those who purchased any fishing equipment, 81% bought new equipment exclusively, 17% bought some new and some used (a sum of 98% who bought at least some new equipment and were asked the follow-up question), and only 2% bought all used equipment.

Interestingly, when comparing fishing equipment purchasers to those who bought other outdoor equipment but did not buy any fishing equipment, those buying fishing equipment were more likely than their counterparts to buy the equipment new and to buy it in a store.

- **The following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

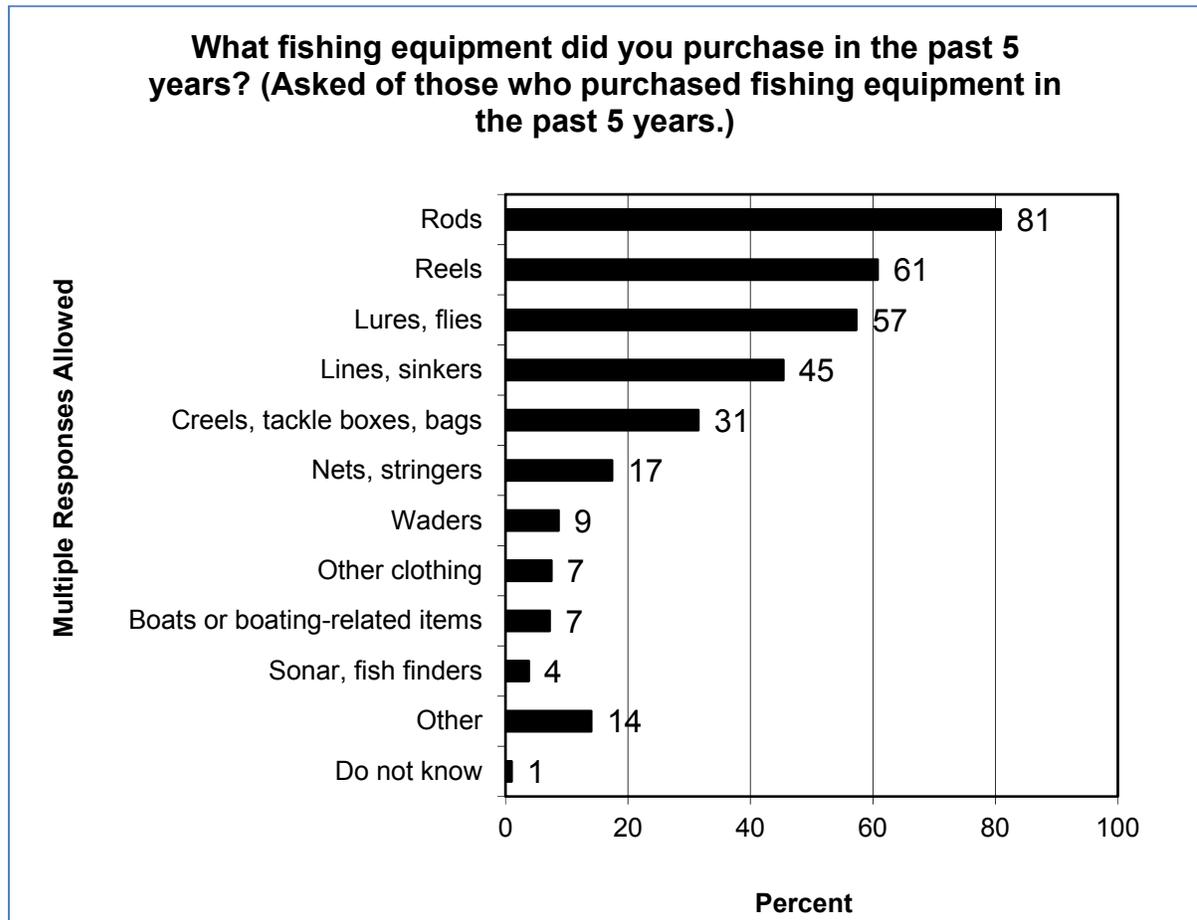
The analysis in Figure 2.30 shows out of all people, including those who did not purchase any fishing equipment at all.



**Figure 2.30. Characteristics of Those Who Purchased Fishing Equipment Online**

- **Rods, reels, and lures/flies are the most common categories of purchases. A second tier consists of lines/sinkers and creels/tackle boxes/bags.**

The survey looked at the types of equipment bought, as shown in Figure 2.31. The top tier consists of rods, reels, and lures/flies—all with a majority of purchasers buying them. The second tier consists of lines/sinkers and creels/tackle boxes/bags, with from a third to a half purchasing them. The full list is shown in the graph.

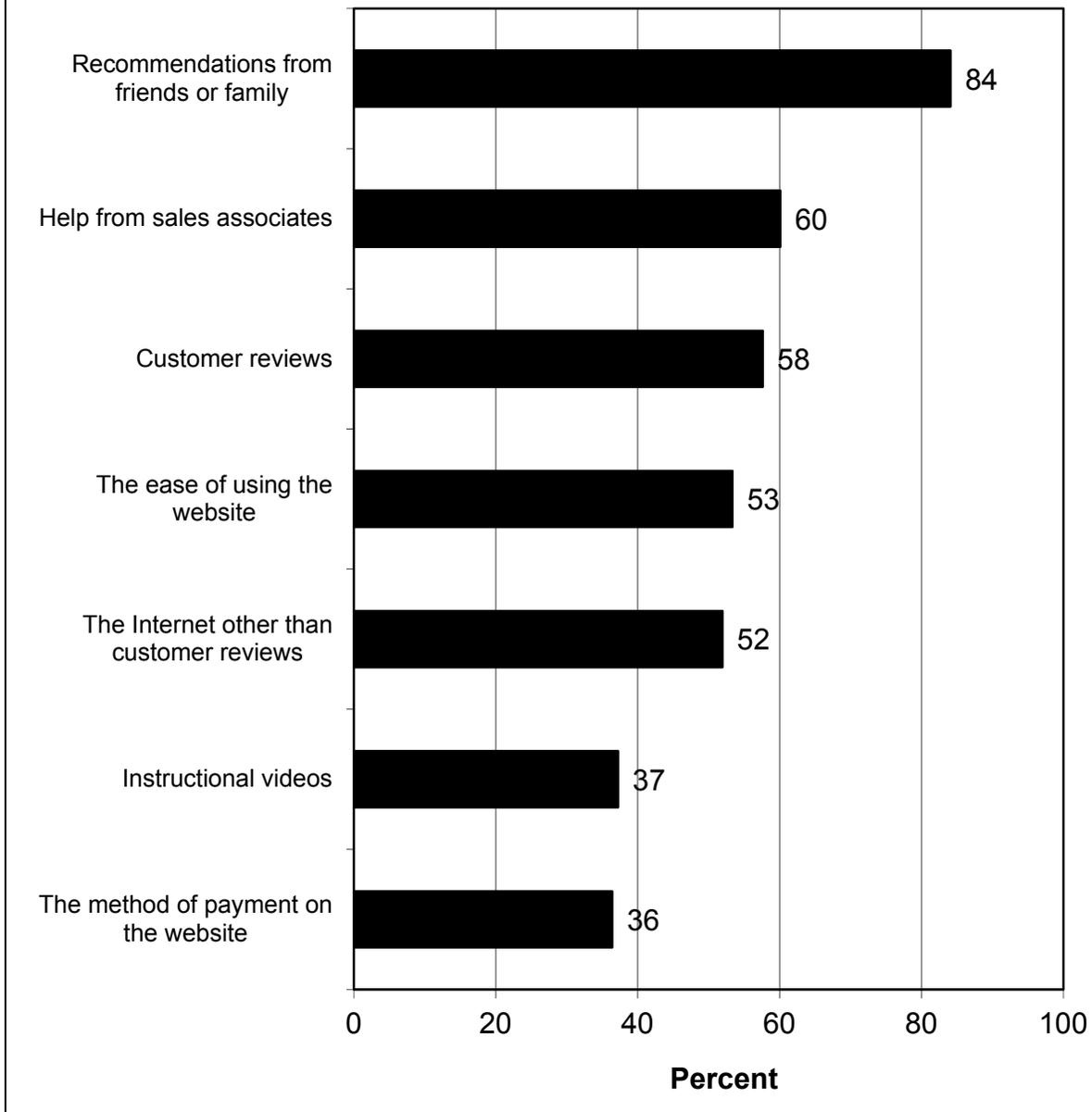


**Figure 2.31. Types of Fishing Equipment Bought**

- **Those things with the most influence on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order.**

The survey looked at the importance of various things in influencing purchase decisions. As shown in Figure 2.32, recommendations from other people were high on the ranking. A large majority of fishing equipment purchasers said that recommendations from friends/family, help from sales associates, and customer reviews are *very* or *somewhat* important in their purchasing decisions.

**Among those who purchased fishing equipment in the past 5 years, the percent who indicated that each of the following was very or somewhat important in helping them decide on their equipment purchases.**



**Figure 2.32. Factors in Fishing Equipment Purchase Decisions**

## RECOMMENDATIONS BASED ON SURVEY RESEARCH

### Participation in Outdoor Activities, Including Crossover Participation

- **Target boaters and campers with retention and reactivation outreach, as these groups are the most likely to also go fishing. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The two activities with the greatest crossover with fishing are motorized boating (66% of motorized boaters go fishing) and camping (63% of campers go fishing). (Crossover refers to participants of one activity who also go fishing.)

- **Target hikers, bicyclers, and runners/joggers with recruitment outreach; these are relatively large groups that show some inclination to go fishing. Camping also has a fairly large non-angling component to target with recruitment. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The opposite of crossover discussed above consists of those who do the given activity but do *not* fish—to whom *recruitment* efforts should be directed. While it would seem that motorboaters would be the easiest to recruit (because this group has the highest percentage who also fish), the size of the target market for motorboating is not relatively large: only 12% of the overall U.S. population go motorboating but do *not* fish.

- **If one target market has priority over the others for R3, it would be those who go camping. Campers are the group with the greatest sheer numbers—it was the most popular activity overall—combined with a high propensity to go fishing—it had the second highest crossover participation with fishing.**

The largest target market for recruitment combined with the greatest propensity to fish consists of campers: 53% of residents overall went camping in the previous 5 years, and 63% of all campers went fishing—targets for retention. Note that 17% of U.S. residents go camping *but do not fish*, and this represents a fairly large group (about 1 in 6 adult U.S. residents) for recruitment, particularly because it is a good chance that at least one of their fellow campers goes fishing.

### Interest in Fishing and Characteristics of Fishing Participants

- **R3 efforts toward those *very* interested in fishing would include the following groups: boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the other non-boating outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

About a third of U.S. residents express the highest interest in the scale, with 36% being *very* interested. Demographic analyses of the data found the associations discussed above.

- **The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This recommendation now focuses only at those who were very interested *but who did not go*. For R3 efforts towards those very interested in fishing but who have not gone in the past 5 years (i.e., they have latent demand), target the following: Latinos; blacks/African-Americans; young people; those living in a suburban area; those with children in the household; and residents of the Northeast region. (Note that the characteristics listed above are not meant to describe a**

single person; rather, the analysis examined discreet groups defined by the given characteristic.)

Demographic analyses of active anglers were detailed previously, as shown in Figure 2.4.

- **Retention efforts toward active anglers would be targeted to those with the following characteristics: participation in boating of any kind, but particularly motorboating; participation in camping; having children in the household; being in the middle age group; and living in a rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of active anglers.)**

Demographic analyses of active anglers were detailed previously, as shown in Figure 2.5.

- **Retention and reactivation efforts should be directed at sporadic anglers, who are associated with being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of sporadic anglers.)**

Demographic analyses of sporadic anglers were detailed previously, as shown in Figure 2.6.

- **Reactivation efforts (and recruitment efforts as well for those who are long-time lapsed) should be directed toward lapsed anglers, who are associated with the following characteristics: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of lapsed anglers; it also includes a summary sheet of non-anglers, although this latter group would be a hard market for recruiting.)**

Demographic analyses of lapsed anglers and non-anglers were detailed previously, as shown in Figures 2.7 and 2.8.

- **Most R3 should be directed toward freshwater fishing, as that predominates over saltwater fishing. However, in efforts to promote saltwater fishing, be cognizant that higher income anglers and urban anglers are more associated with saltwater fishing.**

The survey shows that 86% of anglers go freshwater fishing, while 38% go saltwater fishing. Anglers in the higher income bracket are more likely to go saltwater fishing than are those in the lower income bracket. In looking at where people live, anglers from rural areas are more likely to fish in freshwater than are their counterparts. Meanwhile, urban anglers are more likely to fish in saltwater than are their counterparts.

- **R3 efforts towards boaters should focus on motorboaters. However, paddlers—canoers and kayakers—should be given important consideration as an emerging market because participation in non-motorized boating is an increasingly popular outdoor recreation activity. The former group (motorboaters) are more likely to fish, although both groups are associated with fishing participation. (See Chapter 5, which includes**

**one-page summary sheets of the characteristics of motorboaters, as well as paddlers and those who do any type of boating.)**

In the survey, 59% of U.S. residents go fishing from a boat at least some of the time. Among those anglers who use a boat to fish, 91% use motorized boats some of the time for fishing, and 38% use boats that are paddled some of the time (29% do both).

- **Promote fishing as a social activity more than a solo activity, as most fishing excursions are done with companions. Those who go fishing with others are detailed in Chapter 5, with a summary sheet devoted to those who fish with others.**

The survey shows that 96% of anglers fish with other people at least some of the time, with 66% saying that they fish almost exclusively with other people. Those other companion anglers are predominantly family: 80% of anglers fish with a family member at least some of the time, 55% fish with friends at least some of the time. Note that 18% fish with friends *but not with family*. This group fishing with friends may likely become more important in light of demographic trends that are occurring: with families becoming more widespread geographically, there may be more anglers who do not go through the traditional “family” path to becoming an angler, and more may need to be recruited via friends.

- **For the smaller target market of those who sometimes fish alone, see Chapter 5, which has a summary sheet of those who sometimes go fishing alone.**

Among anglers overall, 33% sometimes fish alone, with 4% indicating that they *always* fish alone.

- **Most fishing excursions are done for the primary purpose of fishing among active anglers. So while retention effort can be devoted to encourage fishing as part of other activities, effort should continue to be devoted to encouraging fishing as its own activity, because this aligns with the way fishing is currently most typically done among established anglers.**

Fishing is more often done as its own activity rather than as part of other activities—in other words, more often the primary purpose of the excursion is to go fishing for 64% of anglers (defined as those who fished as an adult and now go at least rarely). However, 26% typically fish as part of other activities.

- **With the above in mind, do not ignore that other target market of people who fish as part of other activities. Such outreach has the potential to get people who have never fished to try fishing when they might not otherwise go fishing, if that was the sole purpose of the trip. Analyses suggest that newer anglers are more likely than are established anglers to go fishing as part of other activities.**

As indicated above, 26% of anglers typically fish as part of other activities. The results of this study in totality indicate that fishing in conjunction with other activities, such as social, youth, or church groups, will become more important as recruitment becomes more of an issue in the future. A crosstabulation of those who started fishing within the past 10 years (i.e., newer anglers) shows that 45% of them did fishing as part of other activities, compared to 24% of those who started fishing more than 10 years previous.

- **Outreach about access locations should be developed with the fact that most anglers do not typically travel more than a half-hour to get to their fishing spot. Access that is much more than an hour from the target market will be of limited utility to most anglers.**

The majority of anglers who go just to fish (53%) typically travel no more than a half-hour to get to their fishing location.

### Motivations for Fishing

- **Emphasize the aesthetic and social reasons for fishing in retention outreach: to be out in nature and see scenery, to be with family and friends, and to relax. These had the greatest prominence among reasons to fish among active anglers.**

All of the above reasons have 85% or more of active anglers saying that they were *very* or *somewhat* important as reasons to go fishing.

- **Emphasize these same aspects in fishing recruitment and reactivation efforts—nature, scenery, family, and friends—but also encourage anglers to ask friends to go fishing.**

Lapsed anglers were asked about things that would encourage them to go fishing again; five of them are in the top tier, all with a majority of lapsed anglers saying it would *strongly encourage* or *somewhat encourage* them to fish again: for the scenery (63%), to be with family (63%), to be out in nature or outdoors (59%), if somebody asked them to go (56%), and to be with friends (51%).

### Constraints to Fishing Participation

- **Address anglers' dislikes, which include access problems, litter, and poor water quality, or at the very least attempt to explain any shortcomings and advertise efforts that are attempting to address these dissatisfactions.**

Among active anglers (those who fished in the past 5 years), access, litter, and water quality are important dislikes over which the agency and fishing industry have some control (lack of time and mosquitos/pests were other top items, but they are mostly out of the agency's or industry's realm).

- **Regarding litter, programs to keep access areas clean are important; when people see litter at the access areas, it undermines the message that anglers are environmentalists.**
- **The most important reason that sporadic anglers had not fished in the previous 5 years was not having anybody to fish with—any programs that attempt to reconnect active anglers with sporadic anglers would seemingly be effective.**

Among anglers who fished in the past 10 years but not the past 5, the two reasons above led the list. Other issues included water quality and pests (which were dislikes among active anglers previously discussed).

## License Purchasing Preferences

- **About 1 in 7 active anglers have never purchased a fishing license—a group that needs to be the focus of outreach on the need to purchase a license, as well as the good things that are done with the license fees collected. Target these groups that have a higher propensity to *not* purchase a license: Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Among active anglers, 15% indicated that they have never purchased a fishing license. A one-page summary sheet of those who fished in the past 5 years but have never purchased a license is shown in Chapter 5. Demographic analyses of these licenses-less anglers were detailed previously, as well, as shown in Figure 2.15.

- **Among fishing license purchasers, about 1 in 6 purchased their most recent license online. Target these groups with new technologies, particularly for purchasing or renewing a license: those in the higher education bracket; young people; those from the Northeast region; and those in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

The analysis of online purchasers was previously shown in Figure 2.16. Overall, 17% of license purchasers bought their last license online.

- **About two-thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store (even among newer anglers—those who started within the previous 10 years—a bait store is the most common place of last purchase). These people are a target market, and these in-store purchasers are associated with being ethnically Latino; from the West region; in the lower income category; in the middle age bracket; female; in the lower income category; from a small city or town; and without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

The analysis of in-store purchasers was previously shown in Figure 2.17. Overall, 69% of license purchasers bought their last license in a bait store or sporting goods store.

- **To encourage online license purchasing, emphasize the speed and ease of purchasing. These are the top reasons for preferring online fishing license purchasing.**

Those who prefer online purchasing give high ratings to the speed and ease of the purchase as reasons for preferring online (with 79% saying its speed is *very* important and 74% saying its ease is *very* important).

- **Of the four possible renewal options examined in the survey, the most popular would be an email reminder that includes a link to the license purchase webpage. This produced the highest likelihood of encouraging a license purchase.**

The most popular renewal method asked about was an email reminder that includes a link to the license purchase webpage. In the middle tier were a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage. There was much less interest in an auto renewal service connected to a credit card, although it should still be an option.

- **Target females; those living in the Northwest region; those in the higher income category; those in the middle age group; and residents of suburban or rural areas for the renewal method of an email reminder that includes a link to the license purchase webpage. They had the strongest association with saying this would make them likely to renew their license. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

This analysis was previously shown in Figure 2.21.

- **For reaching those who would be very likely to renew their license through an app on their phone, target the following groups: Latinos; residents of suburban areas; those in the middle age group; those with children in their household; runners/joggers; and those with at least a bachelor's degree.**

This analysis was previously shown in Figure 2.22.

- **To reach those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage, target the following groups: Latinos; those with children in the household; those in the higher income category; younger people; boaters; and residents of the West region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

This analysis was previously shown in Figure 2.23.

- **Finally, for reaching those who would be very likely to renew their license through an auto renewal service attached to their credit card, target these groups: residents of large cities/urban areas; younger people; blacks/African-Americans; those having a household income in the higher category; runners/joggers; those having at least a bachelor's degree; and residents of suburban areas. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

This analysis was previously shown in Figure 2.24.

### **Hearing and Seeing Information About Fishing**

- **Know that, other than friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). Use these sources, when possible, to disseminate information.**
- **Another source to be used is social media—the next most common source of information about recreational fishing.**

Facebook dominates in social media, although YouTube and Instagram are sources of information about recreational fishing, as well.

- **Efforts to address negative content about fishing on all of the above sources is important, as about half of people are seeing things, at some times, that are negative about fishing (although, fortunately, content is mostly positive).**

Regardless of the source (with an exception), about half of the people who heard/saw information on the given source indicated in the survey that the information was not wholly positive (although mostly positive). The exception is the information disseminated by retailers and agencies, which seek to spur participation and would presumably not counterproductively belittle fishing.

### **Familiarity With State Agency Websites**

- **The most important types of information on the state agencies' websites are license/permit/tag information, regulations and season dates, and fishing locations. About a quarter of U.S. residents are very or somewhat familiar with their state agency's website, and these are the things they were seeking on the site. Access, in particular, is important given that access is an oft-mentioned problem and has the potential to become more of a problem with increasing urbanization.**

### **Outreach**

- **A free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth would be a good source for disseminating outreach—a third of U.S. residents were interested in such an app.**

There was some interest expressed in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and other topics: 22% indicated being very likely to use such an app, and another 15% were somewhat likely to use such an app (a sum of 37%).

- **A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so). For targeting, those groups most likely to watch online videos are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

The analysis for this was previously shown in Figure 2.26.

- **About 1 in 5 U.S. residents tried other self-teaching methods (other than online videos). For targeting, know that males and younger people are more likely than their counterparts to do other self-teaching methods. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Self-teaching methods are more often done by males (31%) than females (9%), and they are more often done by younger people than older people (26% of those 18 to 34 years old, compared to 19% of those 35 to 54 years old and 18% of those 55 years old and older).

## **Mentoring and Being Mentored**

- **Anglers are engaging in mentoring, and those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. Target these audiences with outreach and programs that encourage and assist mentoring. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Active and sporadic anglers were asked the question: 65% said that they had taught someone to fish. Most commonly, those whom the mentors had taught were their sons (57% of those who taught others) or daughters (48%). The demographic analysis for this was previously shown in Figure 2.27.

- **The concept and image of mentoring should not be just portrayed as an adult teaching a child to fish. While this is the traditional image of mentoring, it does not need to be limited in this way or portrayed only in this way. Adults can teach other adults. Children could even teach adults in some instances. This concept of various mentoring scenarios other than the traditional mentoring scenario should be incorporated into images and communications efforts when discussing the importance of mentoring to the future of fishing in America. This nontraditional mentoring relationship—kids mentoring adults or friends mentoring friends in their own peer group—could be the basis for a national campaign or theme for a campaign.**

About a quarter of mentors indicated teaching a non-family member. This latter type of mentoring may become more important in coming years to recruit people into fishing in a non-traditional way.

## **Purchase of Fishing Equipment**

- **Outreach for fishing equipment purchase—when targeting those who are already most likely to purchase fishing equipment—should be directed towards those who participate in boating (particularly motorboating); participate in camping; have children in the household; live in a rural area; are in the middle age category; participate in bicycling and hiking; are male; and live in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

The analysis for this was previously shown in Figure 2.29.

- **For attempting to reach those who purchase equipment online, note that the following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

- **When trying to influence equipment purchasing, note that those things with the most influence on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order.**

The survey looked at the importance of various things in influencing purchase decisions. Recommendations from other people were high on the ranking. A large majority of fishing equipment purchasers said that recommendations from friends/family, help from sales associates, and customer reviews were *very* or *somewhat* important in their purchasing decisions.

### 3. CONSUMER FOCUS GROUPS FINDINGS AND RECOMMENDATIONS

The qualitative findings discussed in this chapter are based on six focus groups conducted with U.S. residents in each of the four regions of the Association of Fish and Wildlife Agencies (the regions were previously shown at the beginning of Chapter 2). Specifically, the focus groups were conducted in six locations across the U.S.: Tampa, Florida; Chicago, Illinois; Austin, Texas; Houston, Texas; Virginia Beach, Virginia; and Seattle, Washington.

The focus groups included randomly selected U.S. residents ages 18 and older that matched characteristics established by RBF and Responsive Management in order to explore opinions and better understand the needs of different audiences, including those that are historically under-represented in angler R3 efforts. For this study, U.S. adult residents and specific demographic groups are considered consumer markets for fishing and are sometimes referred to as “consumers.”

The Seattle and Virginia Beach groups included a selection of U.S. adults within a range of ages (but who are at least 18 years of age) who are active in outdoor recreation activities. The Chicago group included only Millennial participants, defined as ages 22 to 37 as of January 2019. The Austin and Houston groups were composed of adults living in a Latino family household. The Tampa group was composed of Latino adults who were active in outdoor recreation. Within the pool of potential focus group participants that met the criteria for each group, selection was done randomly.

Note that, for the purposes of this report, the researchers have chosen to use the term “Latino” to refer to those who are natives of, or descend from, a Latin American country. For ease of review, “Latino” is used for simplicity and is intended to encompass *all* gender-specific and gender-neutral terms, including Latino, Latina, and Latinx.

The full research methodology for the consumer focus groups are discussed in Chapter 7 of this report.

#### MAJOR FINDINGS

- **While participation in outdoor recreation activities is widespread, the activities vary and fishing is not a primary activity for everyone.**
- **Children and health appear to be the primary motivations for participating in outdoor recreation activities, including fishing.**
- **Outdoor recreation, including fishing, is often associated with family, tradition, and quality time among those who participate.**
- **Focus group participants who fish prefer not to travel far to do so.**
- **Participants often engage in more than one outdoor recreation activity during a trip or outing. Fishing in particular, however, seems to be nearly evenly divided among anglers who prefer it as a single activity and those who engage in it as a secondary activity while doing other activities.**
- **Interest in outdoor recreation in general, as well as fishing specifically, is higher than actual participation.**

- **The research suggests that family, tradition, and fishing participation as a youth are primary influences on initial interest in fishing as an adult.**
- **Millennials are interested in fishing, but they need assistance and resources that they may be unlikely to seek on their own.**
- **There is a mix of fishing participation and interest levels among Latino adults. Like Millennials, Latino adults who have an interest in fishing but are not currently active may be unlikely to seek assistance and resources to fish on their own. Latino adults perceive a lot of obstacles to fishing that seem to outweigh interest.**
- **Many anglers consider family or social interaction to be a key element of their enjoyment of fishing.**
- **Social interaction and quality time with family and friends is a motivating factor to plan outdoor recreation activities in advance.**
- **Access and water quality issues appear to negatively impact fishing participation and interest.**
- **The perception that fishing is boring or requires too much patience is negatively impacting interest in participation among non-anglers.**
- **The perception that fishing is difficult or requires in-depth knowledge and learning is negatively impacting interest in participation.**
- **Family, group, and packaged fishing opportunities may be an effective means for attracting, activating, or supporting new fishing participants.**
- **Fishing needs to be easy for potential and new fishing participants.**
- **Early success in fishing may perpetuate more interest, enthusiasm, and participation in the activity.**
- **Potential and new fishing participants need information on fishing license requirements.**
- **Although it may not be their primary resource, focus group participants are using social media and, to a lesser extent, apps to plan outdoor recreation activities.**
- **Focus group participants seem generally interested in online resources to support fishing participating, particularly YouTube.**
- **In general, focus group participants—both anglers and non-anglers alike—were not aware of TakeMeFishing.org when asked, but most think the website sounds like a useful resource.**

## **CONSUMER FOCUS GROUP RESULTS AND FINDINGS**

### **Fishing Participation**

- **While participation in outdoor recreation activities is widespread, the activities vary and fishing is not a primary activity for everyone.**

Most consumer focus group participants reported participating in some type of outdoor recreation regularly. Although some do fish, not all outdoor recreationists in the groups initially identified fishing as an activity in which they participate. Top activities cited include hiking, biking, camping, and just being outdoors in general. A substantial portion of participants mentioned some type of water-based activity, such as boating, canoeing,

kayaking, or swimming. Many of the activities identified are ones for which fishing could reasonably and readily become an accompanying activity. For example, those who already camp, boat, canoe, or kayak could easily incorporate fishing into their outings.

*I love to hike and bike.* —Virginia Beach participant

*Swimming, hiking.* —Tampa participant

*Some things I like to do are hiking—we do it everywhere. We went to Puerto Rico and we went hiking there. We also run.* —Tampa participant

*I love to hike, so I travel with my tent and some food and water just in case I need to stop, or I have gone too far and I don't want to go back.* —Tampa participant

*I enjoy skiing, hiking, and backpacking.* —Seattle participant

*I love camping, backpacking, hiking, and just being outdoors as much as possible.* —Seattle participant

*I like hiking and running.* —Seattle participant

*I am from Seattle and obviously in Seattle it's all about the summer sports, so I like hiking, running, boating, biking, and I learned to snowboard recently and now I am going to try skiing.* —Seattle participant

*I recently replaced a bike, so I have been biking a lot.* —Chicago participant

*I like biking as well.* —Chicago participant

*I also bike. I commute to work on the bike, but it has been too cold lately. I also like hiking, but it is hard to find a place around here. I also like kayaking a couple times a year.* —Chicago participant

*Mostly bike, but I kayak a couple of times a year in Wisconsin.* —Chicago participant

*I do some biking, and I go to the store on the bike. I used to camp a lot, but now I only do it once a year. I can't swim, so I tend to stay off boats.* —Tampa participant

*Biking is my first passion, but I also like swimming, I like hiking, and I like being outdoors in general. I do a lot of things outdoors.* —Seattle participant

*I love swimming and biking.* —Virginia Beach participant

*I like working out, riding the bike, jogging.* —Tampa participant

*I have quite a few outdoor pursuits, but mainly cycling right now, though also skiing, mountain climbing, backpacking and a whole range of things.* —Seattle participant

*I enjoy bike riding, some swimming, some hiking every now and then, and some other things.*  
—Seattle participant

*Biking and kayaking—my family has a lake house.* —Chicago participant

*My husband got me into some outdoors stuff. We love being out on the water. We don't own a boat, but we still get out when we can. My favorite outdoor sport is probably being on the bike. I can put my son on it, too.* —Tampa participant

*I like boating. I have a friend that owns one, and I enjoy being out on the water. I like kayaking and waterboarding. I like casually riding my bike.* —Tampa participant

*I like to go boating. I love the beach. I love the water. I love being outside. I find any excuse I can to be outside.* —Tampa participant

*I am the novice of the group, probably. I just, 2 months ago, went kayaking for the first time.*  
—Tampa participant

*I'm into fishing, swimming, hiking, and camping, for the most part.* —Seattle participant

*I go fishing with my wife's uncles....* —Houston participant

*We are outside fishing and taking the dog with us.* —Austin participant

*I like getting out on the boat, fishing. If I am out there, I am going to drop a line.* —Virginia Beach participant

➤ **Children and health appear to be the primary motivations for participating in outdoor recreation activities, including fishing.**

While focus group participants reported a variety of reasons for participating in their outdoor recreation activities, many of these reasons are ultimately related to children or physical and mental health. The reasons offered include spending time with kids, getting kids outside, teaching kids outdoor skills, and getting kids away from technology, as well as physical and mental health reasons like exercise, relaxation, destressing, and disconnecting.

*I have three boys, and I try to keep them outside as much as I can. We do bike riding, walking, hanging out on the beach—everything we can to be outside.* —Virginia Beach participant

*I just want to take my kids outside and show them that are so many things to do outside.*  
—Virginia Beach participant

*I think it's very kid-oriented. Usually you're home and they're on their phones and in their rooms and you never see them, but when you go out, you're always together and it makes a big difference.* —Houston participant

*I just grew up doing these things, and now I want to pass it on to my kids.* —Houston participant

*I enjoy teaching my kids what I was taught. —Houston participant*

*It serves as a distraction for my kids. We get out and the kids can do whatever they want... and just be outside. —Houston participant*

*Kids need to get out, and they need survival skills. God forbid anything happen, but you would know how to hunt, how to catch fish, how to clean them, how to build a fire.... It's a tradition, because I did the same thing when I was a kid and my dad taught me, and it is really good for connecting the family and it gets you out of the house.... —Houston participant*

*I teach science to kids, and there are just so many things you can teach kids by being outside. —Austin participant*

*Children motivate me. They ask to go all of the time. I have boys and they are always wanting to be in the dirt or do something outdoors. That definitely motivates me, because I would rather be indoors. —Austin participant*

*The family time and being able to unplug—especially with camping—and being able to get away from cell phones and TV, is just nice to take a weekend trip and find a different camping site to go and camp and be with the kids. I love seeing how excited they get and that makes me want to do it more. When they grow up, they will always remember. —Austin participant*

*Same for me. My little boy is 100% boy. At his dad's house he has Fortnite and video games, but at my house, we are always going. We are outside fishing and taking the dog with us. It's so much better to be outside than to be one of those kids who is addicted to playing video games. —Austin participant*

*I have one boy who is so into electronics. All he wants to do is play with electronics, so I have to make him go out. Then I have another one who is 3 years younger and he's also into electronics, but he is also into the outdoors. I take them out just to get them away from the controller. —Austin participant*

*Health. —Austin participant*

*I do it for exercise and just to be active. —Houston participant*

*I just want to have fun, but as I get older, I am doing it more for health reasons. —Virginia Beach participant*

*I am required to stay in good physical shape for my job, so being outside helps. —Virginia Beach participant*

*I do it for the exercise. —Tampa participant*

*I do it for the Vitamin D, for starters. —Chicago participant*

*It goes beyond the exercise, because I enjoy fresh air and nature, and I just like moving all of the time.* —Tampa participant

*I like the fresh air, and I like the freedom of being outside. I also like the fact that it keeps you healthy.* —Seattle participant

*I love the solitude, the quiet when you get away from the city. I also am motivated by physical fitness.* —Seattle participant

*I want to escape from work.* —Virginia Beach participant

*I need the balance.* —Virginia Beach participant

*I do it because I have to destress and recharge.* —Houston participant

*Relaxation.* —Austin participant

*Being outside is a good stress reliever; it helps you forget about work for a little while.* —Austin participant

*I feel like it gives you a bit of peace of mind.* —Chicago participant

*I do it because I completely disconnect.... I do it for the activity, but I also do it to be social and to disconnect.* —Tampa participant

*Also, you get to get away from screens and technology.* —Seattle participant

*For me, it's all about disconnecting from my everyday routine.* —Seattle participant

➤ **Outdoor recreation, including fishing, is often associated with family, tradition, and quality time among those who participate.**

As discussed previously, focus group participants often mentioned children as a motivating factor to participate in outdoor recreation. Many participants emphasized the benefits and opportunities that outdoor activities provide for family interaction and tradition. While several focus group participants expressed the opinion that fishing in particular is often a solitary activity, anglers in the groups also referred to the benefits and opportunities fishing specifically provides for family activity and family traditions.

*I just grew up doing these things, and now I want to pass it on to my kids.* —Houston participant

*I enjoy teaching my kids what I was taught.* —Houston participant

*Tradition is important to me. For us camping and being on the water just means family time in the summertime.* —Houston participant

*I want my son to learn stuff that will help him survive, too.* —Austin participant

*I enjoy teaching my son. He is real book smart, so I like applying his knowledge outside.*  
—Austin participant

*For me, it was all about family. That is just what my family did on the weekend when my dad didn't have to work. I don't even remember how old I was when I learned to fish, it was so long ago.* —Virginia Beach participant

*I love to stick a worm. It is the coolest thing ever. When I was with my son's dad, his dad wasn't very outdoorsy, so when it became just my son and I, we were like let's try this. One day I said something about fishing and he was like, "Mommy, you don't know anything about fishing," and I just said, "Let's go." He had already gone fishing with friends and when he found out his mama liked to do it, he went out and got a pole and then he felt like he was teaching me, and that was great.* —Austin participant

*My husband loves fishing, so he actually started me fishing. It wasn't something I did on my own, but I have been doing it for a long time, now. I want to do things with my grandkids, because we used to have so much fun when we were little, but kids don't have that kind of fun anymore. I don't want them sitting on the tablet or the computer.* —Virginia Beach participant

➤ **Focus group participants who fish prefer not to travel far to do so.**

Consistent with survey research that indicates most anglers travel no more than 30 minutes to fish, focus group participants who fish most commonly report traveling only 30 to 60 minutes to fish. Although some anglers expressed willingness to travel multiple hours to fish, many explained that they do not travel far because there are plenty of local fishing opportunities, they do not want to drive long periods when only fishing briefly, or they do not want to drive long periods when it would take time away from actually fishing.

Note that Chicago focus group participants, who are predominantly Millennials (i.e., younger adults), seem to be more willing to travel farther to fish. This finding is interesting given that Chicago is located on the shore of Lake Michigan and because it was selected as a focus group location particularly for its impressive array of local outdoor recreation opportunities. While the reasons for the willingness to travel were not specifically explored during the focus group, it may be that Millennials, who are younger and less likely to have children yet, have more free time and fewer familial responsibilities, allowing them to travel farther.

*It is time consuming just to fish, so why would you want to spend a whole day traveling?*  
—Virginia Beach participant

[Traveling no more than 30 minutes to fish] *sounds about right.* —Virginia Beach participant

*If I am only going to fish for a little bit, I'll go nearby, but if I am going for a day or more, we don't mind driving 4 hours to Corpus or wherever.* —Houston participant

*I think if you drive more than 30 minutes, you'd call it a fishing trip.* —Houston participant

*I only do it here locally, unless it is some big planned trip.* —Austin participant

*I may go like 20 minutes.* —Austin participant

*I would do an hour and a half.* —Austin participant

*My average is about 30 minutes in either direction.* —Austin participant

*Maybe an hour. An hour to drive.* —Austin participant

*More than 40 minutes away is too far for me.* —Austin participant

*Around Austin, there is all kinds of water. You don't need to go an hour.* —Austin participant

*Strictly to fish, maybe 20 or 30 minutes.* —Seattle participant

*An hour or two away would be my tops, usually.* —Seattle participant

*I would maybe go an hour.* —Seattle participant

*For a typical average outing, I would think 15 to 30 minutes in any direction would be good.*  
—Seattle participant

*Driving distance for a weekend trip, I'd maybe do 6 hours.* —Chicago participant

*About 4 hours for me.* —Chicago participant

*More hours is ideal. Get some distance.* —Chicago participant

- **Participants often engage in more than one outdoor recreation activity during a trip or outing. Among active anglers, however, preferences seem to be nearly evenly divided among those who prefer fishing as a single activity and those who engage in it as a secondary activity while doing other activities.**

Focus group participants were asked specifically about participating in multiple activities in a single outing. While there is certainly a healthy mix of focus group participants who prefer to participate in a single outdoor recreation activity at a time and those who prefer multiple activities, it seems many participate in more than one activity during an outing. The activities most commonly named as ones participants do while participating in multiple activities are hiking, camping, boating, and various water sports, such as swimming, skiing and more.

When asked about fishing alone, fishing as part of multiple activities, and what other activities would go well with fishing, many focus group participants were quick to respond that fishing is something often done without engaging in other activities. Nonetheless, discussion revealed that many also fish while doing other activities, especially camping. Although not consistently acknowledged by focus group participants, it may be that fishing is a good secondary or complementary activity among multiple outdoor activities; however, when fishing is the primary purpose of the outing, it may be more likely to become the sole activity.

**Comments on Multiple Activities (Not Including Fishing)**

*I go camping and hiking.* —Virginia Beach participant

*We specifically go camping to go hiking. We plan it that way.* —Virginia Beach participant

*Camping and hunting.* —Houston participant

*I think I usually go camping and hiking.* —Chicago participant

*Kayaking and camping.* —Chicago participant

*Backpacking and camping go together.* —Seattle participant

*I think hiking and camping go together because if I exercise a lot, I just want to collapse wherever I lay down. So, if you go on a 15-mile hike, you can just set up camp wherever you end up.* —Seattle participant

*Biking and camping, too. I have done a lot of bike tours, so there is a lot of camping that goes with that.* —Seattle participant

*There are so many hikes where there are lakes, and it's so nice to just jump in after you've hiked up the mountain.* —Seattle participant

*Boating and duck hunting.* —Houston participant

*Tubing and skiing.* —Houston participant

*I just do what's available. When I go camping, I know I will go hiking, and if I see someone rent a bicycle, I will do that too. It's just whatever presents itself.* —Tampa participant

*When the opportunity presents itself, I am always like, "Okay, let's do it." I like doing multiple things. If it is there, I am going to do it and not even think about it.* —Tampa participant

**Comments on Fishing as a Single Activity**

*I do think fishing is its own outing.* —Virginia Beach participant

*My son likes to go fishing and fishing only.* —Austin participant

*I think fishing is by itself. Fishing is too much work and my mind has to be on it. Fishing is more like a sport.* —Austin participant

*I think the last time I went fishing, it was part of a charter out of Hampton. That was the purpose of the trip, just to go fishing.* —Virginia Beach participant

*Fishing can take up the whole day pretty much. Your whole day goes by and you don't really want to do too many other activities.* —Houston participant

*For me, if I am going to go do something after work just to relax, it's probably just going to be going fishing, because of the location. —Houston participant*

*To me, fishing is more like a sport. I am not honestly out there wasting time; I am going out there to catch a fish. So, if I know I am going Saturday fishing, I have mentally prepared and I have figured out what my routine for the day is going to be.... It's just more of a sport for me. —Austin participant*

*The thing about fishing is that you can't just go and say, "I am just going to go fishing for 30 minutes." I don't want to say it's time consuming, but you know by the time you get everything you need, pack it up, and get out there, you don't want to just go for a short amount of time. I guess some people must do that, but for us, we concentrate on that one activity, because it is something that we could end up doing all day. Even into the night, if you really wanted to. —Austin participant*

*I don't really fish, but my husband does. If you go through the entire process, and not just the sitting and the waiting part, it seems like there is so much you have to focus on. I think maybe that's why so many people just fish. —Seattle participant*

### **Comments on Fishing as Part of Multiple Activities**

*I go fishing when I go camping. When we go camping, we always fish and that's what we eat. —Virginia Beach participant*

*I think when we go camping, we load up the bikes and there is always usually a hiking trail, and we always have to bring the fishing poles. We load up the canoe. Camping for us, is a lot of events. We rarely go fishing or canoeing unless we go camping. —Austin participant*

*Fishing and camping. —Houston participant*

*Sometimes I will fish when I camp. —Austin participant*

*Camping and fishing go together. —Seattle participant*

*Boating and fishing. —Seattle participant*

*Boating and fishing. —Houston participant*

*Barbeque and fishing. —Houston participant*

*Any water sports and fishing. If you did water skiing or something like that, that might disrupt the fish, I guess. —Seattle participant*

*We go biking and fishing and then pull out the jet skis. —Houston participant*

*Going to the beach and fishing, we do together. —Houston participant*

*We also like to use the boats when we fish. Sometimes I'll end up shooting a squirrel or a duck while I'm out there. —Austin participant*

*I will do other things. I will set the pole up and then go for a walk, unless it looks like I am really going to catch something.* —Austin participant

## Interest in Fishing

### ➤ Interest in outdoor recreation in general, as well as fishing specifically, is higher than actual participation.

Most focus group participants expressed interest in participating in outdoor recreation activities, including those who already participate indicating they would like to participate more. While work obligations, family responsibilities, financial constraints, and more were cited as reasons for not participating, a number of focus group participants feel that they would like to participate more often in their outdoor activities or try new activities if they could remove some of the common obstacles. Anglers within the focus groups are among those who expressed a desire to participate more.

*I am never satisfied. I need more.* —Tampa participant

*I prefer much more [outdoor recreation]. I can do things on vacation and stuff, but if I had more time, I would like to do it more often.* —Tampa participant

*I don't do these things as much as I would like to.* —Seattle participant

*Life keeps me from participating as much as I would like.* —Seattle participant

*If I could figure out a way to get paid and do nothing but this, I would be doing it.* —Seattle participant

*I would say I don't do it as much as I would like. Work, weather, and other stuff is a problem.* —Chicago participant

*Work [prevents me from participating as much as I would like], yeah.* —Chicago participant

*My household gets in the way. My boyfriend lives with me and he doesn't bike, so it's like for a couple of years, I don't have a person to do things with. Also, I have two puppies, so they need a lot.* —Chicago participant

*No [I do not participate in my outdoor recreation activities as much as I would like].* —Virginia Beach participant

*No way [I do not participate in my outdoor recreation activities as much as I would like].* —Virginia Beach participant

*I want to do things, but they are so far away.* —Virginia Beach participant

*When you travel, you get offered [to] jet ski or take a boat ride and then you come out, "Oh! I want to do this all of the time!"* —Houston participant

*Work gets in the way [of participating as much as I would like].* —Austin participant

➤ **The research suggests that family, tradition, and fishing as a youth are primary influences on initial interest in fishing.**

Focus group participants were asked what initially piqued their interest in the outdoor recreation activities in which they participate. Overall, the primary influences on interest are family, friends, health, and exercise. Among anglers specifically, spending time with family and engaging in fishing during their youth were most commonly mentioned.

*My husband loves fishing, so he actually started me fishing. It wasn't something I did on my own, but I have been doing it for a long time, now. I want to do things with my grandkids, because we used to have so much fun when we were little, but kids don't have that kind of fun anymore. I don't want them sitting on the tablet or the computer. —Virginia Beach participant*

*For me, it was all about family. That is just what my family did on the weekend when my dad didn't have to work. I don't even remember how old I was when I learned to fish, it was so long ago. —Virginia Beach participant*

*I have three brothers and my two older brothers were always outside hunting and fishing, and we had a nice little lake house we could go to when I was 8, 9, 10. —Austin participant*

*I went fishing all the time when I was growing up, because we had a house in Michigan with a lake in the back of the house, so we would fish a lot. My grandfather would fish and he would always take me with him, but as I got older, it was one of those things where there just weren't a whole lot of opportunities. Now, it's harder to fish where you can actually keep what you catch, so that has been kind of a setback. I can't find places where you can keep what you fish or that are more sustainable fishing areas in close proximity to where I live. It's just limited, so I wouldn't mind fishing a little more, but I am kind of the type that I would like to fish and actually be able to cook what I catch. —Chicago participant*

➤ **Millennials are interested in fishing, but they need assistance and resources that they may be unlikely to seek on their own.**

The Chicago focus group consisted primarily of those in the Millennial age generation. Although none of the Chicago participants consider themselves active anglers, many have been fishing during their youth and some expressed interest in fishing. However, the Chicago focus group participants remained hesitant, citing a need for either more information, such as where to fish, or for direction or support from knowledgeable anglers. Furthermore, the general tone of discussion among the Millennials seemed to imply that they may fish if offered the needed resources, but that they are not necessarily going to actively seek out those fishing opportunities and resources.

*I would love to fish more. —Chicago participant*

*You know, I don't miss it, but I haven't done it in so long, I think it would be really fun to do it again. —Chicago participant*

*I would actually like to do it more. I went to a friend's lake house a few months ago and the guys were doing it and I wanted to do it once I saw it. I haven't done it in so long, so it's not something that I think about all of the time, but I would definitely do it. —Chicago participant*

*Maybe you can go on the other side of Lake Michigan, I don't know. I enjoy it, though. I have gone down to Florida for fishing trips and it's a blast, but where we live, I am not sure there is anything to do. —Chicago participant*

*I fish probably three times a year at my family's lake house. The reason I don't go more often is just because of resources. I don't know where you would actually go fishing in this city, though. —Chicago participant*

*I really don't know where [to go fishing] either. —Chicago participant*

*I have only been fishing maybe two or three times in my life, and that was when we went to a family friend's lake house over the summer a very long time ago. For me, if someone is doing it and they have everything set up, I'll participate. I think it's fun, but I am not educated enough to do it by myself. I wouldn't know what supplies to grab or how to do it myself. —Chicago participant*

*My parents are from a small lake town, so I grew up going to the lake dozens of times a year. Fishing was a part of that, but probably not the main component. Once a year you would end up fishing at some point. So, when I go to lakes now, it is usually for much more specific trips.... There is usually a lot heavier of an itinerary, and fishing is not something that my family really does. It was always just about auxiliary people that we knew that did it, and we would occasionally do it with them. —Chicago participant*

*My grandparents had a pond, so we would always fish and then I also worked at a summer camp and I taught that a little bit, but, like I said, I would never take the fish off of the hook. So, I guess you would very loosely call it fishing. None of my friends do now. If someone was like, "Hey, do you want to go fishing?" I would go. —Chicago participant*

*I went fishing all the time when I was growing up, because we had a house in Michigan with a lake in the back of the house, so we would fish a lot. My grandfather would fish and he would always take me with him, but as I got older it was one of those things where there just weren't a whole lot of opportunities. Now, it's harder to fish where you can actually keep what you catch, so that has been kind of a setback. I can't find places where you can keep what you fish or that are more sustainable fishing areas in close proximity to where I live. It's just limited, so I wouldn't mind fishing a little more, but I am kind of the type that I would like to fish and actually be able to cook what I catch. —Chicago participant*

*I would say I am a casual fisherman, so I do it maybe once or twice a year and I volunteer at a summer camp and we always do fishing there. I get a couple of worms and put them on the hook, and I'll take the fish off of the hook and throw those back, too. That's really the only time I'll do it, though, is when there are other people around me who want to do it. I set up when we get there, so I don't own any poles or anything, but I absolutely love doing it with the kids. We just sit there and we goof off and we chat and we have fishing competitions where kids try to catch the most fish. It is really fun when I do it, but I think the reason I don't do it much is because of that sociability thing. It goes back to the fact that I can't just*

*walk out of my door and do it. I have to buy the equipment, figure out transportation to get to a place where I can fish, and then after doing all of that, I have to figure out what to do with the fish. It's a lot of work.* —Chicago participant

*I went with a church group once and we went way out, at least an hour drive from where I live and it was one of those rivers where they put the fish in there themselves. It was cool, but it was also somehow artificial, because they put them all there. I think it's just difficult to have all of the equipment, load it up, then you could be out there for 3 or 4 hours at a time without anything happening. You know, how often do you have 3, 4, 5 hours to do with it whatever you want? It's just not easy.* —Chicago participant

- **There is a mix of fishing participation and interest levels among Latino adults. Like Millennials, Latino adults who have an interest in fishing but are not currently active may be unlikely to seek assistance and resources to fish on their own. Latino adults perceive a lot of obstacles to fishing that seem to outweigh interest.**

Participants in the Austin and Houston, Texas, focus groups and the Tampa, Florida, focus group consisted primarily of Latino adults. Some Latino adults already participate in fishing. Focus group participants in the Houston group seem to be more likely to be currently active anglers than those in the Austin and Tampa groups. While there is modest to moderate interest in fishing among Latino adults in the groups, they also expressed substantial amounts of hesitancy and disinterest. Latino participants cited many obstacles to fishing and, like Millennials in Chicago, indicated that acting on their interest depended on having assistance and resources. Disinterest in fishing was particularly notable among Latino participants in Tampa, Florida.

*I know where the fish are, I just need to get there.* —Houston participant

*I don't want to go out there alone. I want to go with friends or other people, but I don't know who to go with.* —Houston participant

*Learning to go and catch fish is not an easy task. I think it is a difficult task.* —Houston participant

*Knowing more about bait and what to use.* —Houston participant

*What kind of water and where?* —Houston participant

*I think a lot of people have tried fishing but won't go back, because it requires quite an investment—you are going to spend a minimum of \$100. Most rookies don't know a lot and don't want to put that much money in. I know, though, you ask the bait shop and find out what they're biting on, but someone new might not know.* —Houston participant

*I think the knowing part is hard. A lot of people are scared to try something for the first time. If I had never done it, I wouldn't want to because it's like, "Oh, I have to do homework now? What's the point?"* —Houston participant

*I do not fish as much as I would like.* —Austin participant

*Absolutely not [interested in fishing]. Life is in the way. —Austin participant*

*I don't have enough time. —Austin participant*

*There are too many other activities I am involved in. —Austin participant*

*I think your time scheduling and supplies and the weather all play a part. Fishing is a lot of planning. It is not like hiking or biking, or even canoeing—you can rent a canoe if you want. —Austin participant*

*I think what it is, too, is you can't really grab four of your friends and go fishing, because what if they don't have their own pole or you have to teach them. That's a lot of time and work. —Austin participant*

*Whatever would help guarantee that you are going to catch fish would be what you need. Whatever it takes to do that, that's what you need. —Austin participant*

*I did [fishing] once as a kid with my grandfather, and it just wasn't for me. —Tampa participant*

*[Fishing is] so boring. —Tampa participant*

*[Fishing] is boring. —Tampa participant*

*I am not patient, and I don't like just sitting there. That is strike one. Strike two is, I don't like touching slimy things, I don't want to put a worm on the hook or take a fish off of the hook. —Tampa participant*

*The one time I went fishing, I tried to put a fish in a bowl and keep it as a pet. I don't see the draw. I guess I get it for some people, but just not me. —Tampa participant*

*I am really weird about going on a boat. I can't swim, and it creeps me out. I have gone fishing, and I can't just sit there with a pole and just wait. I can't do that. My husband loves fishing, but he will never go with me ever again. He is all about it, though. I can't touch it, I think it's so boring and someone else would have to deal with the hook, so why am I going to sit there? No. —Tampa participant*

*We just cruise right above the fish. There have been a handful of times where some of the guys go fishing and we just lay out, but it's like, can we keep going? This is boring and it doesn't really interest me.... I have no patience; I need something way more interactive. —Tampa participant*

*I haven't done any fishing in my life. I haven't even thought about it. I would do anything, but I really have never been interested in fishing. No one has ever invited me to fish. I just don't know if I would like it. I have friends who do it, but they don't ask me to come along. I would go and then tell you if I like it or not. —Tampa participant*

*I went fishing when I was young. I wasn't into it too much, except at the restaurant, but other than that, I don't swim, so I am afraid of the water. My brothers all fish and they have invited me, but I prefer not to go. It's sort of not much of an activity for me. I would rather walk around the block than go fishing. I just don't care for it and I am afraid of the water.*

—Tampa participant

*I have never fished. I don't have the patience. It seems so boring and I don't want to sit there on the boat for forever and do nothing. It just doesn't interest me. I have friends who go fishing, but if they asked me, I would be like, "No. I am not going to do that." It's just not something I want to do. Maybe one day, if I get really bored, I will take my son if he really wants to go. It's just not my thing.* —Tampa participant

*My dad took me fishing when I was younger and he tried to get me involved, but I just didn't enjoy it. My father loved it. I just thought it was boring. It just requires too much patience.*

—Tampa participant

*I have been invited many times, and I have declined the invitations, but if it was to be more supportive for someone, I would probably do it. Like if someone was depressed and didn't want to be alone, I would do it. I would sacrifice for a better need, but for someone just to get on the phone and invite me, I would be quick to tell them no.* —Tampa participant

*Fishing off of a boat, sounds fun.* —Tampa participant

*I don't do boating. I don't really like boats. I don't really fish. I used to fish when I was young. I don't miss it, because it was so boring and not really fun. Like everyone said, you have to have patience, and that is not something I have. It's not bad, because when I was younger and used to go out to fish with buddies, we would go out there and drink and talk and get some sun, and it wasn't bad. I just don't really fish, though, and I don't have a fishing pole.* —Tampa participant

*We didn't have much money growing up and my dad fished, but I didn't do it. I fished with him a few times, but it was nothing that stuck with me. It was a good family moment, though, and I do remember it.* —Tampa participant

*My grandfather had a fish market, and I used to go fishing after school on weekends, but it was here in Tampa when there used to be fish. It wasn't boring then, because you would throw the pole out and by the time you threw your second pole out, your first pole was pulling. It was constant and it was fun because it was with my mom and my family. Now, though, it's just not fast moving enough for me, and I don't eat fish and I have a problem with seeing dead or hurting animals.* —Tampa participant

## **The Importance of Social Interaction to Fishing Participation and Interest**

- **Many anglers consider family or social interaction to be a key element of their enjoyment of fishing.**

As discussed previously, focus group participants often mentioned children as a motivating factor to participate in outdoor recreation and emphasized the benefits and opportunities that outdoor activities provide for family interaction and tradition. Although some expressed a preference to fish alone, many anglers in the focus groups consider their outdoor recreation

activities, including fishing, to be a family or social activity. For some, the social aspect of the activity is their primary purpose for participating.

*My husband loves fishing, so he actually started me fishing. It wasn't something I did on my own, but I have been doing it for a long time, now. I want to do things with my grandkids, because we used to have so much fun when we were little, but kids don't have that kind of fun anymore. I don't want them sitting on the tablet or the computer. —Virginia Beach participant*

*For me, it was all about family. That is just what my family did on the weekend when my dad didn't have to work. I don't even remember how old I was when I learned to fish, it was so long ago. —Virginia Beach participant*

*When I go fishing, I will take a group of friends out, but when I go hunting, I do it alone. —Virginia Beach participant*

*If you go with people, there is no TV in front of you and you don't have your phone, you just end up talking to the people you're there with. —Virginia Beach participant*

*I really wouldn't ever go out by myself, so my dad would take me and my sisters out, so I think now if the guys in my family wanted to go fishing, I would go with them. I wouldn't fish alone. I do see it as a way to get more quality time in with people I care about. —Virginia Beach participant*

*A lot of people who talk about their first fishing experience, it is always with family as a young child. One of the two times I have ever been fishing, I went fishing with my dad. I was over it pretty quickly, and it was a catch and release community pond, and it was a father-daughter day thing. I liked it. —Virginia Beach participant*

*Market it as a social activity. It is kind of a no-brainer to me. —Virginia Beach participant*

*We go biking and fishing and then pull out the jet skis. —Houston participant*

*Going to the beach and fishing, we do together. We go to the beach on one side and fish on the other part of the water. It's better that way. —Houston participant*

*They're all good bonding activities. You make memories when you do them together. —Houston participant*

*Sometimes we try to go with friends, but sometimes it's really hard to get everything set up and find days that work, but when we go with friends it's more fun. —Houston participant*

*When I teach someone or take my family, I watch them more than I fish myself. I want them to experience the catch. Whoever I take fishing, this is the case. I kind of ignore my own fishing, so I can watch them experience it.... I enjoy it, though. —Houston participant*

*It is fun. My buddies send a message and say, "Who wants to fish?" And everyone takes the day off, because it is such a fun thing. We want to fish and not waste any time. We get in and get out. If it is not biting in 10 to 15 minutes, we move spots. —Austin participant*

*I think it is both a sport and social, because I can sit there for hours. They're going to cast out and want to catch something right away, so it's really both. They lose interest after a little while and they'll run off, and I'll end up watching their poles and stuff. Spending time with them and seeing their joy when they get a bite, I get the best pictures. —Austin participant*

*I go with friends, but I don't have kids. When we go fishing, we take my nieces and nephews, though. For us, it is usually, just a boys crew, though—four or five guys who go fishing, but occasionally with the kids. Or I go with my brothers, but it's really about hanging out and talking and drinking beer. —Austin participant*

*I would say I am a casual fisherman, so I do it maybe once or twice a year and I volunteer at a summer camp and we always do fishing there.... That's really the only time I'll do it, though, is when there are other people around me who want to do it. —Chicago participant*

*I think it depends on what else is going on—if you're renting a cabin for a weekend with your friends and doing some fishing, I would travel farther for that, but if it was just to go to some lake for 2 hours and then just go back home, I think that would be too much. —Chicago participant*

*I have a friend who loves to fish, and he has a fishing business and he goes after families because he thinks that fishing is a family event. He gets groups and gets them out fishing. He has been doing it his whole life. He says a lot of people fish. He takes out families and corporate groups. —Tampa participant*

*I would rather go with other people for two reasons: 1) security, because I am not the most adventurous guy, so I like having backup in case my brain starts to go crazy on me, and 2) I just like the shared experience of it all. Seeing something you don't see every day and getting to share it with friends is amazing. —Tampa participant*

*If I'm marine fishing, then we'll go out with a boat and a bunch of other people. If I were going freshwater fishing and fishing in a lake from the shore, then I would take those trips solo. —Seattle participant*

*I got to do a lot of fishing when I was younger, but it was always very social, as in we are going to go fishing, camping, do some barbeque, play some music. I like that aspect—the social part. I would do it again if I were part of a group that did it, but I don't think I would go by myself and just fish with maybe another person, I think it would have to be part of a bigger group. If it were associated with boating, I would happily do it just by myself or maybe with another person. —Seattle participant*

➤ **Social interaction and quality time with family and friends is a motivating factor to plan outdoor recreation activities in advance.**

Particularly in the Houston and Austin, Texas, groups with Latino adults, focus group participants focused on the social or group aspect when planning for an outdoor activity. Focus group participants in other locations did not necessarily emphasize the group aspect of their activities as did those in Houston and Austin, but when asked about their planning process, many mentioned using group texts, email, and Facebook to communicate with others, implying that when planning in advance it is typically a family or group activity that is being planned.

*We usually do everything in a group. If we were by ourselves, it would be really hard. Usually, it will be one of the wives who sends a message, "Hey, I want to go. Do you want to go? If you want to go, here's the list of what we need, so tell me what you're going to bring." Ours are usually planned by the one who wants to go out.* —Houston participant

*My wife is the one who plans everything. She reaches out to family and finds out when they're going and then makes sure it works with our schedule.* —Houston participant

*Sometimes we try to go with friends, but sometimes it's really hard to get everything set up and find days that work, but when we go with friends it's more fun.* —Houston participant

*I would say it is both planned and not planned for our family. There have been times when it was a big family trip and we'll plan everything on a weekend when everyone can get off of work. Or maybe we'll wait for a spring break week when the kids are out of school and it will just work out. But there are plenty of times where we will have every weekend off and we'll just go to a local, little camping site and the kids will fish or do whatever. I love it.* —Austin participant

*I think it is both for me. It's spur of the moment most of the time because of my work schedule, so when I do get to do something with my kids, it's more spur of the moment, but I want to be outdoors as much as I can, because I work all of the time. Once or twice a year, though, it's major planning with my friends and stuff.* —Austin participant

*I plan everything using group texts. I don't like repeating myself multiple times. Everyone is in the message and if you respond, you respond. If you don't, oh well.* —Virginia Beach participant

*I use Facebook Messenger a lot. I like Messenger because you can mute it, you can leave the conversation, and you can search for keywords throughout the text. It is really efficient.* —Virginia Beach participant

*A lot of my friends use Groupme or [Google] Chat if someone wants to do an event or a camping trip. That way you can find out who is coming and if you want to go.* —Chicago participant

*I send out a group email and get feedback, and that's how we figure it out.* —Chicago participant

*I usually just text people. —Seattle participant*

*When it comes to planning for outdoor things, it is usually very casual, very little planning. Say I was going camping with my friends, if you didn't bring it with you, you don't think about it. There is really not a lot of intensive planning or step-by-step process that goes into a really big party or something like that. —Seattle participant*

## **Constraints to Fishing Participation**

### ➤ **Access and water quality issues appear to negatively impact fishing participation and interest.**

Focus group participants were asked about reasons for not participating in fishing, what prevents fishing participation, and what could improve fishing experiences. Responses to these questions, as well as general discussion, reveal that access is an important obstacle to fishing participation, particularly *not knowing* where to fish. The lack of awareness of knowing where to fish is especially pronounced among the Chicago focus group participants, although it is unclear if this finding is particularly strong in Chicago as a location or for Millennials specifically. Chicago is on the shore of Lake Michigan, yet the focus group participants expressed a strong lack of knowledge on where and how to fish in Chicago or on Lake Michigan. This finding perhaps highlights the importance of communicating the basics about fishing in recruitment marketing, even when it seems the information is or should be obvious to the audience.

In addition to the lack of awareness of where to fish, concern regarding water quality was expressed specifically in the Virginia Beach focus group. The poor quality of the water in the area was mentioned several times during group discussion.

*Accessibility and location are issues. I just don't have anywhere to go [fishing]. —Chicago participant*

*I think accessibility is a big problem. Then a bunch of other things: resources, equipment, supplies, transportation. —Chicago participant*

*I fish probably three times a year at my family's lake house. The reason I don't go more often is just because of resources. I don't know where you would actually go fishing in this city, though. —Chicago participant*

*I really don't know where [to fish] either. —Chicago participant*

*I would like to know where to go [to fish]. —Chicago participant*

*And what kind of fish are where? That is not something I would know, but I would be interested. —Chicago participant*

*Maybe you can go on the other side of Lake Michigan, I don't know. I enjoy it, though. I have gone down to Florida for fishing trips and it's a blast, but where we live, I am not sure there is anything to do. —Chicago participant*

*I know that people get fish on the lake, but I don't know if that can happen anywhere on the lake or somewhere specific. —Chicago participant*

*There are some issues with space—you have spaces for swimming or surfing or fishing. Around here you don't have the freedom to fish wherever you like. —Virginia Beach participant*

*Information, too. It would be nice to have more information to say: find more fishing holes, or have places to raft, where to go, what to do, what's reasonably inexpensive. —Houston participant*

*If you're a beginner, you need to know beginner stuff—you know, everything. If you're intermediate, though, like me, what's next? Where are the places to go? And I know the places are scarce. Who can tell us where to go and what to do? —Houston participant*

*The water was so clear years ago, but now it isn't. —Virginia Beach participant*

*Another major turnoff for me is how dirty and murky the water is in some places. I don't want to eat something that comes out of dirty water. —Virginia Beach participant*

➤ **The perception that fishing is boring or requires too much patience is negatively impacting interest in participation among non-anglers.**

Focus group participants were asked about reasons for not participating in fishing and what prevents fishing participation. Responses to these questions, as well as general discussion, reveal that a prevalent perception of fishing as “boring” exists. This perception was particularly strong among the Tampa Latino group, but it emerged as an opinion across all the groups.

*I don't like touching the bait and the fish. You probably have the patience to sit there and wait, but I am so bored. If my husband is doing it, I will sit there and talk to him with no problem, but if I am doing it, I get so impatient. I need some action. —Virginia Beach participant*

*I didn't go with my family when I was little, but I did have some opportunities to go with friends, but I wasn't interested in just sitting there and looking at the water. —Virginia Beach participant*

*I guess I don't see the point of fishing and that is why I wouldn't be very patient while fishing. There are things I do that require patience, but I don't have patience for that. —Virginia Beach participant*

*Me too. I am patient when it comes to things I want to do, but I wouldn't be patient while fishing, because I don't see it as rewarding. —Virginia Beach participant*

*I don't eat fish, so I don't fish. I don't have enough patience, and there is not enough adrenaline going on. —Virginia Beach participant*

[Outdoor recreationists who won't try fishing] *think it's boring.* —Houston participant

*Once someone gets going, they're fine, though. The first couple of times, though, [outdoor recreationists who won't try fishing] don't like it, think it's too boring. —Austin participant*

*Some people are impatient. They have adult ADHD, so [outdoor recreationists who won't try fishing] can't just sit there. —Austin participant*

*[People I have tried to teach to fish] get bored really easily and get their line caught on everything. —Austin participant*

*I think there is a stigma of [fishing] being boring. —Chicago participant*

*My grandpa had a cottage in Wisconsin, and my brother and I were maybe 10 and 8 and my grandpa said he would take us fishing. When you're that age, though, you don't have a lot of patience, so after about an hour of just throwing and casting, my brother finally catches one and I am happy for him, but it's super tiny, so my grandpa looks at it and chucks it back in the water.... I haven't gone since. I just didn't have the patience. It might be different now. My grandpa never took us back, either. —Chicago participant*

*[Fishing is] so boring. —Tampa participant*

*[Fishing] is boring. —Tampa participant*

*I am not patient, and I don't like just sitting there. —Tampa participant*

*[Fishing] is boring and it doesn't really interest me. I think spear fishing is different, because I feel like that is way more interactive.... I have no patience; I need something way more interactive. —Tampa participant*

*I have never fished. I don't have the patience. It seems so boring and I don't want to sit there on the boat for forever and do nothing. —Tampa participant*

*My dad took me fishing when I was younger and he tried to get me involved, but I just didn't enjoy it. My father loved it. I just thought it was boring. It just requires too much patience. —Tampa participant*

*I don't really fish. I used to fish when I was young. I don't miss it, because it was so boring and not really fun. Like everyone said, you have to have patience, and that is not something I have. —Tampa participant*

*My husband fishes and I have been, and I categorize it into three parts: the sitting part, which is really boring; then the pulling up part, which is hard if you're not very strong; and then the cleaning part, which I think is gross. —Seattle participant*

*I've fished, mostly as a kid. My father used to go fishing every year, so we have gone fishing, but it never really drew me in. I think it is kind of boring to be honest. I don't mind the social aspect of it, but otherwise, I don't really see a lot of reason to fish. —Seattle participant*

*I am not currently a fisher, but I have gone with my dad in the past and I think it is kind of boring, also, so I don't do it very often. —Seattle participant*

*I think for me, I just don't have enough patience to just there and wait for anything. I haven't been [fishing] before, so I don't know what it's like or how long it takes.... I think that is probably one of the things that holds me back. If I am going to do an outdoor activity, I would want to be active. Fishing doesn't sound active. —Seattle participant*

*Maybe there is some really cool commercial that could show fishing looking cool and people looking cool while doing it. It is boring to people and if you could say something else about it to help glamorize it a little more, and you could add stuff, too, like with fishing and camping or spearfishing. There has to be some great way to market it to renew the idea of fishing in people's minds. —Seattle participant*

➤ **The perception that fishing is difficult or requires in-depth knowledge and learning is negatively impacting interest in participation.**

Focus group participants were asked about their interest in fishing and what would motivate them to learn more about fishing. Responses to these questions, as well as general discussion, reveal an underlying perception that fishing is difficult. Comments expressing the difficult or challenging nature of fishing also often acknowledge that there is much learning, strategy, practice, and even information-seeking involved in fishing. Some respondents are unsure or intimidated by how to begin the process of learning to fish. Several experienced anglers also commented on their awareness that the knowledge or skill set involved in fishing intimidates novices and potential participants. Additionally, discussions of the difficulties and challenges of learning to fish would occasionally also lead to comments about the required investment of time and/or money involved in learning to fish, which is another deterrent.

*You don't want to go out [fishing] and make a fool of yourself. —Virginia Beach participant*

*Learning to go and catch fish is not an easy task. I think it is a difficult task. —Houston participant*

*Fishing is too much work and my mind has to be on it. Fishing is more like a sport. —Austin participant*

*My son used to fish with his old babysitter and that is part of the reason he likes it so much, and he was teaching me a bunch of stuff about bait. There is so much to learn. —Austin participant*

*Catching fish is challenging, and I think it could be fun. I think some people do it as a sport. I think, though, that I probably wouldn't catch some huge and awesome fish. Other people could, but I don't think I could. —Tampa participant*

*I think it's sort of frustrating, though, because you might spend the whole day out there and then not catch anything. —Chicago participant*

*There is a lot of research that needs to be done if you're going to go fishing. It's not like just grabbing a pole like in the old days. —Seattle participant*

*Fishing requires instruction. If I had kids, I wouldn't bring my kids to fish, because I don't know how to teach them. —Seattle participant*

*You know, if you want to go hiking, you just walk. That is not the case with fishing. —Seattle participant*

*I think if there was some kind of activity where they cook the fish for you, it could be really helpful. There is definitely a learning curve for that part too. —Seattle participant*

*I think the knowing part is hard. A lot of people are scared to try something for the first time. If I had never done it, I wouldn't want to because it's like, "Oh, I have to do homework now? What's the point?" —Houston participant*

*I think it is a learning activity sometimes, too. Once you get out there, there are so many fish and you kind of have to take the time to figure things out. It is a learning process for all of us. Then you've got the worms and bait and stuff like that that you need to catch the fish, that's more learning. Then you have to sit there and meditate to try to catch the fish. Every time we go, it's something different. It's always a learning experience. —Austin participant*

*Maybe not knowing how to do everything doesn't help. I don't know how to gut fish or cook it. What do you do when you catch it? I know there is a lot of catch and release, but I mean, what do you do? —Austin participant*

*Some people don't know where to start. When you buy your pole, I remember from the first time I went fishing, I didn't know how to put anything together. Luckily, I could go to my brother in law, because I didn't know what to do. —Austin participant*

*I wish I could do it more. I think there is a lot more to it, with being out there with people that are good at it or guides. There are more levels, and you can get better at it and learn how to cast differently. It's like a puzzle, and I think there is a lot of strategy in it. What are you going to use for what? What kind of lure works for what? There are just a lot of levels to it. —Chicago participant*

*I guess I never thought of it that way. You don't know what you don't know until you have a conversation about it and it can be recognized or realized how many layers there are involved in fishing. —Chicago participant*

*It would be nice if you could get everything you need, including information, in one place. —Virginia Beach participant*

*One thing that can be intimidating for me is that some of the fisherman have systems and know where to go, and when you don't know where to go or know what you're doing, you get worried that you might cross this experienced fisherman's line or screw up what he is doing. I don't want to jack someone else up. —Virginia Beach participant*

*We had touched on earlier that the reason some people don't go fishing is because of the insecurity. If you could help someone overcome that by showing them how to set everything up and what they need, and just give them the confidence to make their own decisions on those purchases and things, that would be important. —Virginia Beach participant*

*I wouldn't put time and effort into learning how to fish if you aren't really passionate about it, but if you offer things like the Groupon thing, people might try it as a fun day, and then they may fall in love with it. —Virginia Beach participant*

*For a beginner, you need chances to practice. You need to be able to go to the pier and just practice and practice and feel and learn how the tug feels. You have to get used to it. Rods have become really sensitive, too, though, so now you can feel those snags better. —Houston participant*

*I think maybe people don't like it, because it's hard. I dated a girl a few years ago and she swore she liked to fish, but 20 minutes in, she was struggling and was done. It's easy to catch a fish, you can catch 10 fish in 10 minutes if you're in the right spot, but if you go to the wrong spot, you might be out there for 4 hours and not catch anything. If you have one bad experience, that accounts for your 50% who don't like to do it. It's too much work. —Austin participant*

*I think a lot of people have tried fishing but won't go back because it requires quite an investment—you are going to spend a minimum of \$100. Most rookies don't know a lot and don't want to put that much money in. I know, though, you ask the bait shop and find out what they're biting on, but someone new might not know. —Houston participant*

*That would be nice, because for a lot of these things you have to use all of this special equipment and it's not like it's something you will be using all of the time, so it would be nice if you didn't have to buy it all. —Austin participant*

*If you came up with a new fishing rod where you didn't have to learn how to cast and somehow it could do that function for you, and there was no need for a lure, then maybe if there were inflatables or floatables that you could set up on the water instead of having to buy a full-price boat, then maybe. If there were a whole collection of products that was gear for people who don't want to learn anything, but still want to fish, I think that could be a beautiful thing. I think there will still be serious anglers, but the whole product line could simplify everything as much as possible and open a lot of doors. —Seattle participant*

### **Additional Factors Related to Potential Angler Activation and Support**

- **Family, group, and packaged fishing opportunities may be an effective means for attracting, activating, or supporting new fishing participants.**

While many established anglers may consider or prefer fishing as a solitary activity, many fishing and potential fishing participants are just as likely to engage in fishing as a family, social, or secondary activity. As discussed previously, family and children are often motivators for fishing participation and outdoor recreation activities in general. Furthermore, outdoor recreationists often engage in more than one type of activity during a trip or outing. Finally, many focus group participants expressed a lack of awareness and knowledge about knowing how or where to get started in fishing. Offering family, group, and/or packaged

fishing opportunities would address many of these preferences and concerns as they relate to fishing by providing a family or group activity, a chance to engage in more than one activity, and a safe or educational learning environment. During discussion, some focus group participants made connections and suggestions alluding to the importance of inclusive or educational family and social opportunities and packages for fishing.

*Market it as a social activity.* —Virginia Beach participant

*Make it easy, too. Make it easy to plan a trip and get everything you need together. It just seems like a lot of work right now.* —Chicago participant

*I would like a package—like here is a fishing excursion with these types of fish.* —Chicago participant

*Top three are make [fishing] social, make it easy, and make it cheap.* —Chicago participant

*It would be nice to have all of the tools provided for you.* —Austin participant

*Connect it with other stuff you enjoy doing, like hiking and drinking.* —Chicago participant

*Related to how to make it more fun, I think connecting it to cooking the food could really work. Maybe there could be an app that pairs recipes with the lake you're going to, or maybe restaurants could make deals where you could bring in your fish and they would eat it.*  
—Chicago participant

*I had a friend who I tried to talk into going fishing with me, and I used a Groupon to buy a fishing excursion and we had a lot of fun. They take you out and have everything you need and it's just so easy. Instead of \$40 bucks to do the trip, it only cost \$20. I would never pay \$40, but I would definitely pay \$20 several times a year. They had everything: bait, poles, and they even cleaned the fish for you.* —Virginia Beach participant

*I think people are looking for ease. We are obviously a small sample, but we all said we had time challenges, so I am sure the rest of America does, too, so events that can be easily booked, paid for, and accessed, would be ideal.* —Virginia Beach participant

*I don't think non-fisherman are going to go out seeking these things, but if you put it right in front of their face, they might think about it.* —Virginia Beach participant

*I wouldn't put time and effort into learning how to fish if you aren't really passionate about it, but if you offer things like the Groupon thing, people might try it as a fun day, and then they may fall in love with it.* —Virginia Beach participant

*For me and my family, we go once a year in July and we all take a week of vacation, rent a beach house, because my mom loves fishing and we take her every year for her birthday. We take the whole week off.* —Houston participant

[Texas Parks and Wildlife Department] *did that for kids. It was just catch and release, but when kids caught fish, they would take pictures and give them a plaque. I think that was really good, because it also motivates parents when they see how much fun the kids are having.* —Houston participant

*How about just having something there at the lake or wherever that you could rent? There are not places where that is possible. If you're walking down to the lake and decide you want to do some fishing, if you don't have poles or whatever else you need, you can't do it.* —Austin participant

*It would probably most likely be on a family trip that I would learn about some of these things. Me getting in there with the guys and watching. For me, I think it would be starting at the beginning, which would probably be a good experience.* —Austin participant

*If you had a tour guide and they helped with the whole thing—even the cooking. Not only does he take you out and help you fish, but then you clean the fish and prepare the meal, and it could be like 3 hours long. It could be something like that. You could take your fish home if you don't want to cook it right there. That would be something that I would do.* —Austin participant

*I have a friend who loves to fish, and he has a fishing business and he goes after families because he thinks that fishing is a family event. He gets groups and gets them out fishing. He has been doing it his whole life. He says a lot of people fish. He takes out families and corporate groups.* —Tampa participant

*I think an all-inclusive thing could work—you could draw people in who maybe were not fisherman, but maybe they are teetering and tottering on that idea, by having something all-inclusive—where you could supply the license, the gear, and the education that goes with it. People could go out with a group or something and learn and not have to invest as much with a one-time cost of going to see if you like it. Then as time goes on, they can decide if they are really interested in that stuff, but something that would offer an opportunity for people to learn without making a ton on investments in things they may not use down the road would be a good idea.* —Seattle participant

*I still think a great thing to do would be to bring it to a lake where a lot of people go to go swimming or to layout and have an additional fishing activity. I don't know if that's possible, because I don't know a lot about fishing, but maybe it's something that could be done. If you think about Green Lake, if you want to go paddle boarding there, you just go and pay a fee and all of the equipment is there and they tell you the rules and you're good to go.* —Seattle participant

*I have only been fishing maybe two or three times in my life, and that was when we went to a family friend's lake house over the summer a very long time ago. For me, if someone is doing it and they have everything set up, I'll participate. I think it's fun, but I am not educated enough to do it by myself. I wouldn't know what supplies to grab or how to do it myself.* —Chicago participant

*My husband doesn't like it, so we don't go, but I would like to learn. I would like to know how to do many things, so I am open to the experience and going with my kids, but all the people I know who fish are guys and they don't want to go with me and my kids. And maybe my husband doesn't want me to go with them either. —Houston participant*

*I think the one thing that websites forget about is to include a kid section.... A lot of websites forget that, especially with something like fishing, which is a family event. They should focus more on family and kids. —Austin participant*

*I would definitely surf [TakeMeFishing.org], just because I like to look at stuff, but I would like to look at different places in case I went on vacation and I didn't know certain spots. It would also be nice if there were family-oriented things or kid-friendly things. —Austin participant*

➤ **Fishing needs to be easy for potential and new fishing participants.**

As previously discussed, there is a perception that fishing is difficult or requires in-depth knowledge and learning. Many focus group participants who do not fish appear somewhat intimidated by the amount of effort they perceive fishing requires and feel there is much they do not know. The family, group, and packaged opportunities for fishing previously suggested may help, but, in general, fishing needs to appear easy and unintimidating to activate new participants.

*Make it easy, too. Make it easy to plan a trip and get everything you need together. It just seems like a lot of work right now. —Chicago participant*

*I would like a package—like here is a fishing excursion with these types of fish. —Chicago participant*

*Top three are make [fishing] social, make it easy, and make it cheap. —Chicago participant*

*It would be nice to have all of the tools provided for you. —Austin participant*

*I think people are looking for ease. We are obviously a small sample, but we all said we had time challenges, so I am sure the rest of America does, too, so events that can be easily booked, paid for, and accessed, would be ideal. —Virginia Beach participant*

*I think, for me, it would be easy if I could find some kind of print off where I could check stuff off—some kind of fishing for dumb people or something. I would like something that showed me the steps. I would go out and try to fish if someone near me, friend or family, wanted to do it, or if like we talked about earlier, it was associated with something else fun, like going camping or some other activity that could be an all-day thing. —Seattle participant*

*There is a lot of research that needs to be done if you're going to go fishing. It's not like just grabbing a pole like in the old days. —Seattle participant*

*It would be nice if you could get everything you need, including information, in one place. —Virginia Beach participant*

➤ **Early success in fishing may perpetuate more interest, enthusiasm, and participation in the activity.**

As focus group discussions examined the importance of children, family, and social interaction in fishing, recommendations for fun and easy fishing events for kids with guaranteed success were made, suggesting that early success may be a key factor in increasing interest and participation in fishing. Some fishing participants also shared memories of early fishing success when learning as a child and how it increased their enthusiasm for the activity. Finally, the assertions that fishing seems difficult or too challenging also contribute to the finding that fishing needs to be, or needs to appear, easy for new participants.

*Success builds confidence.* —Austin participant

*I think it's sort of frustrating, though, because you might spend the whole day out there and then not catch anything.* —Chicago participant

*That moment when you do catch a fish, you feel jubilant or satisfied.* —Chicago participant

*The element of surprise with fishing, where you are just sitting there and then all of a sudden, you have a bite.* —Chicago participant

*They should make a beginners pond, so it is easier for people like us.* —Chicago participant

*I have taught a few friends to fish and with them, usually, after the first couple of fish they catch, they're hooked. Sometimes, they can't believe they caught something, or sometimes the fish just tasted really good, but they stick with it. It's usually a combination of both. I taught my nephews how to fish and they love it.* —Seattle participant

*I think you should focus on that accomplishment. When you reel a fish in and it's a big one and takes all of that work, everyone is high-fiving and it is so awesome.* —Virginia Beach participant

*I lived in Harrisburg, Pennsylvania, and at the end of the summer, they stock a swimming pool and let kids go out and fish and it's like a derby. My son caught a catfish and got on TV, and he loved it.* —Virginia Beach participant

[Texas Parks and Wildlife Department] *did that for kids. It was just catch and release, but when kids caught fish, they would take pictures and give them a plaque. I think that was really good, because it also motivates parents when they see how much fun the kids are having.* —Houston participant

*When you fish in kiddy ponds, they have these bamboo poles that you can't really cast with, but you can take it to a pond with a whole bunch of fish that they feed all of the time, and it will be easy to pull a fish out of there. If you're a child who just started and that's what you're getting into, it is guaranteed that you're going to catch something.* —Seattle participant

*When I teach someone or take my family, I watch them more than I fish myself. I want them to experience the catch. Whoever I take fishing, this is the case. I kind of ignore my own fishing, so I can watch them experience it.... I enjoy it, though. —Houston participant*

*We took our kids to a catfish farm, which turned out to be very expensive. Once they figured out how to do it, they were like, "One more mom! One more dad!" We fed the whole apartment complex with fried fish that night. —Houston participant*

*Some of these places with crappy fish, take your kids and they'll have a blast. Longhorn Dam in Austin will be kind of crappy fish, but the kids are successful and then they get so excited.—Houston participant*

*I know that some of the families of my kids' friends have started doing it because they see how fun it is. —Houston participant*

*I think it is both a sport and social, because I can sit there for hours. They're going to cast out and want to catch something right away, so it's really both. They lose interest after a little while and they'll run off, and I'll end up watching their poles and stuff. Spending time with them and seeing their joy when they get a bite, I get the best pictures. —Austin participant*

*If you go out there with the intention of catching fish and you don't catch fish, you're going to feel like you wasted your time and you aren't going to want to do it ever again. —Austin participant*

*The first time I ever fished was with my grandpa and when I first dropped my line in, he said it might take a while, so just be patient. I caught a fish within 5 minutes. For me, that was like, "Oh! This is fishing! You just drop your line in and get a fish! It's so easy!" Then I bring it back home, and my dad is like, "Who caught that fish?" and I told him I did, and he said, "No you didn't." He was shocked that that happened. For me, I thought that was fishing until I was older and realized that's not fishing. —Seattle participant*

*My grandfather had a fish market, and I used to go fishing after school on weekends, but it was here in Tampa when there used to be fish. It wasn't boring then, because you would throw the pole out and by the time you threw your second pole out, your first pole was pulling. It was constant and it was fun because it was with my mom and my family. —Tampa participant*

*I went fishing all the time when I was growing up, because we had a house in Michigan with a lake in the back of the house, so we would fish a lot. My grandfather would fish and he would always take me with him, but as I got older, it was one of those things where there just weren't a whole lot of opportunities. Now, it's harder to fish where you can actually keep what you catch, so that has been kind of a setback. I can't find places where you can keep what you fish or that are more sustainable fishing areas in close proximity to where I live. It's just limited, so I wouldn't mind fishing a little more, but I am kind of the type that I would like to fish and actually be able to cook what I catch. —Chicago participant*

*My grandpa had a cottage in Wisconsin and my brother and I were maybe 10 and 8 and my grandpa said he would take us fishing. When you're that age, though, you don't have a lot of patience, so after about an hour of just throwing and casting, my brother finally catches one and I am happy for him, but it's super tiny, so my grandpa looks at it and chucks it back in the water. I was like, "Well, this blows. I want to go back and play Super Mario Brothers." I haven't gone since. I just didn't have the patience. It might be different now. My grandpa never took us back, either. He took us for burgers instead. —Chicago participant*

➤ **Potential and new fishing participants need information on fishing license requirements.**

Overall, there is a lack of awareness and knowledge regarding fishing license requirements, and fees among focus group participants who are not experienced anglers. Some focus group participants did not know you need a license for recreational fishing. Furthermore, there is a lack of knowledge regarding *why* a fishing license is required. Lack of awareness that the license fees are used to fund state agency fisheries management and conservation contributes to the discontent. Finally, among those who are aware of fishing license requirements, they are typically unhappy with the cost, the hassle, or both.

It is important to note, also, that many potential and new anglers are not aware of what they do not know. That is to say, they will not actively seek information about fishing licenses if they are not aware that licenses exist or are required.

*I think people are just unaware that you have to have one. —Chicago participant*

*When I was little, I didn't have to buy one. Now, I don't know if everyone has to. —Tampa participant*

*I didn't know you needed a license. If I ever tried to fish, I wouldn't have bought one, so I guess some people just don't know. —Virginia Beach participant*

*I found out you have to have a license to fish through friends. —Chicago participant*

*If I wasn't a part of this group, I wouldn't know that it was illegal to fish without a license. —Seattle participant*

*People think there is a difference between just going fishing and being a fisherman who needs a license. —Austin participant*

*I think people don't like the inconvenience of having to get the permit to go once a year. It's an open season. —Austin participant*

*I think most people probably just think you have to go grab a pole and stick it in the water. They don't know you need a license. I think a smaller number are trying to skirt the law. —Seattle participant*

*Some people just don't care, some of the same people who drive with a license. —Virginia Beach participant*

*I have friends who go fishing and they don't worry about getting a license. —Virginia Beach participant*

*[Fishing without a license is] not illegal until you get caught. —Virginia Beach participant*

*They're going to do it just once, and they don't want to buy a license for one time and they think it will be fine. —Austin participant*

*Yeah, I think they think just going out once, they won't get in trouble. —Austin participant*

*I have had people tell me they don't buy a license, because they aren't really fishing, just their child is and they don't need a license to fish.*

*Or if you're just randomly going and you just have time off and it's a pretty day, you don't want to buy a license for that. —Austin participant*

*You can have a fishing license for freshwater, but you want to go to the coast, so you have to buy a saltwater license. It's inconvenient. —Austin participant*

*It's real hard for people like us who don't really fish but get invited to go one time. If you don't buy a license just in case, you would be fishing illegally. I don't think they really check, but you could get in trouble. I think if you are out at sea, they really patrol that. —Tampa participant*

*Thinking about the times I have been out boating and people decide to fish for like half an hour, I don't remember anyone ever asking if they had their license. They could have. We have been pulled over for other things, but never fishing licenses while on a boat. I have never encountered that. —Tampa participant*

*I used to work at Dick's Sporting Goods, so I know you need a fishing license from working there. My husband has been asked to show his license when he was shark fishing, but I am not sure about the casual fisherman or anything like that. —Tampa participant*

*Pulling it all together can be hard, though. That's a plan, though, so if you don't go to Lake Washington, where do you go? What do you need? I do a lot of shopping, so I am always seeing cool fishing poles, but what else do you need? Do I have to go get worms? Do you need a license? I have to do some research, because I forgot about all of it from when I was younger. —Seattle participant*

*Why does [having a fishing license] cost? —Seattle participant*

*What goes into buying a license? I really don't know. —Seattle participant*

*What is the fee for the license? —Tampa participant*

*If I am only fishing one time, I don't want to pay \$15 to \$20 for one time. —Tampa participant*

*The amount is a little much for one time. —Tampa participant*

*Why do I want to pay for something that lasts from January 1 to December 31 when I am just going to go fishing one time in August? Or maybe I plan to go four times, but I only go once. —Austin participant*

*I wonder where the money from these licenses go. —Houston participant*

*It's hard to buy their license. I used to take my kids when they were little, but not that they are grown, it's too expensive. Fees are expensive. Why? —Houston participant*

*It's weird to get charged to do something in nature that should be free to all of us. It stresses me out. It seems like corruption. —Tampa participant*

*I can't buy that, because you have corporations out there fishing for all of us to eat, so why would they target us little people. I just think paying for a license is so corrupt. I just don't trust the system. —Tampa participant*

*There should be an easier way to renew [a fishing license]. —Houston participant*

*Getting a license is a pain! —Houston participant*

*Licenses are a pain in the butt. Some places they don't sell them and they want too much information. —Houston participant*

*I think it's possible that the process of getting a license online through a government website might not be as simple as it could be. I know anytime I have tried to use government websites for what should have been a very easy process, it was not. —Chicago participant*

## **Communications and Marketing for Fishing**

- **Although it may not be their primary resource, focus group participants are using social media and, to a lesser extent, apps to plan outdoor recreation activities.**

Focus group participants were asked about how they plan their outdoor activities, followed by specific questions about their use of social media and apps for their outdoor activities. While word-of-mouth and group texting are popular responses, social media like Facebook and YouTube, and even some helpful apps, are being used. Some participants use Facebook to organize outings with friends, while others use it to find events and locations for participation or to join a private group that posts and interacts about the activity. A few participants mentioned additional online resources, such as YouTube and Google reviews, as well as apps that they use to find locations for participation or even to keep up with their fishing license. Note, however, that the use of social media, websites, and apps is not always an organized, methodical, or thorough endeavor.

Focus group participants in some locations were more likely to mention social media than those in other locations, while others had to be prompted about social media use. Houston and Virginia Beach are the two locations that mentioned social media resources for planning prior to being asked specifically about its use. Seattle participants were less likely to name conventional social media apps and more likely to name specialized, small-scale, or local online resources.

*Facebook.* —Virginia Beach participant

*I guess Facebook is probably the best to use.* —Chicago participant

*I use Facebook Messenger a lot. I like Messenger because you can mute it, you can leave the conversation, and you can search for keywords throughout the text. It is really efficient.*  
—Virginia Beach participant

*I plan about 50/50. It's mostly text or Facebook that I use.* —Virginia Beach participant

*I put something up on Facebook and say, "Hey, if you want to come, bring some food and join us."* —Houston participant

*People see stuff that you did on Facebook and they think it looks fun and they want to come, and you get a good mix of people who are more experienced than you.* —Houston participant

*Sometimes I will go when I see something good on Facebook.* —Houston participant

*I saw stuff on Facebook and Snapchat and Instagram, and thought, "Oh, that looks fun! Let's go do that!"* —Houston participant

*Usually some stuff will come up on my Facebook feed related to things I have looked up and I will click on them.* —Houston participant

*I have seen some of the most beautiful sites on Facebook and I will screen shot them and then we will start planning for next year.* —Tampa participant

*Depending on the activity, though, if it is something you want to make into a super big group activity, then I might post it on Facebook. You can rally the troops that way.* —Seattle participant

*I think it is one of the only platforms that makes it easy to plan, because there is space to put in all of the logistics that you need to, but again half of my friends are on Facebook and half of them never check it, so it's kind of tough.* —Chicago participant

*I belong to a Facebook group of over 6,000 wildlife enthusiasts from this area, and I will grab the camera and go out by myself or go with other people from the group. We have chartered boats to watch migrations and everything.* —Virginia Beach participant

*I use it if it is a new place. If I am looking for recommendations to take the kids for a hike or something or biking or something, I will use social media. I will just post, “Does anybody know any good spots for hiking or anything?” And I will mention that it is for kids. If you’re going during a busy weekend, I will ask about hotels too, because you don’t want to go somewhere that is not a good place. —Austin participant*

*The only thing I will use social media for is if it is a place we haven’t been to, usually everything has a Facebook page with pictures and reviews, and I’ll check that out. We went to a place two weekends ago in Galveston and it was just something that had popped up on Airbnb, but there were no pictures and we tried Googling it and the website was kind of iffy and the Facebook page had customer reviews and photos and that helped a lot. —Austin participant*

*I have friends that will go fishing, and they will post where they are and they will say, “Tried this new spot—loved it!” or “Tried this new spot—hated it!” I do that a lot, too. If someone asks about something, I will remember that someone else posted about it and that can be useful. —Austin participant*

*Sometimes I post things I have done [on Facebook], but a lot of times people will tag me in at some place we went, and then people will say, “Hey, I saw that you were tagged in at this place; what did you think of it?” —Austin participant*

*I also maybe use Facebook recommendations. I think it is a good way to get people who maybe have done the same activity or have any recommendations, and then they can just post on there. Just post it on regular feed. I would do that first, before figuring out what I am going to do with the group. —Chicago participant*

*I [post on social media] all the time. I always do, because you never know, some of your friends may want to go there, or if they’re planning something it might be helpful. I always give detailed comments. —Austin participant*

*I guess for social media, I always look up guide services. If you want a good guide, I will always ask for recommendations. —Austin participant*

*I think social media is best, because you can see different things. You can see where your friends went and get a good idea of what’s around. My friend posted this run she did the other day and it was a path I have never done, and there was this little café where you can stop and eat breakfast and now I want to go! Things like that help me. —Austin participant*

*Sometimes, the people I am friends with, I will see stuff on Instagram and Facebook and Snapchat that look cool, but it really depends on what I am feeling like doing. —Tampa participant*

*I search through my friends’ Instagrams a lot. I will see something and just ask where it is and how they got there. That will spark my interest a lot of times. I am a very visual person, so I will see something pretty and reach out and get information. —Tampa participant*

*And YouTube, too. A lot of the places I went when I was a little kid. I can find them on YouTube and go. —Houston participant*

*We will Google spots and get up and go. And you get there and someone says, "There is another spot over here," so then we'll go there. —Houston participant*

*I use Google to get information. —Chicago participant*

*We share ideas on a Google drive or doc and that way everyone can look at it and share feedback. —Chicago participant*

*I use Yelp a lot. I Yelp all the time. I Yelp everybody. I am Yelping you right now! It's good information. —Austin participant*

*I usually look up, "Top 10 places to go camping near Chicago," and I'll do that a few times to figure out what are some of the top spots to go. —Chicago participant*

*I just pulled one up in the app that I use, and it has the expiration date and everything there, so when July comes, I will just put my card in there and make sure it's fresh. —Virginia Beach participant*

*I used one in Michigan that was recommended on some app and he was really good. So, we started using stuff more. —Austin participant*

*I started using Hobnob to do things and set up events, because I feel like on Facebook, it is more impersonal, and if you do want people to join an event, it won't get lost. It's basically like e-vite, but it's just an app where you get a text message that says something like, "Hey, so and so invited you to this party. RSVP." Then you click on the link and you can see the invite page and all of the information. —Chicago participant*

*A lot of my friends use Groupme or [Google] Chat if someone wants to do an event or a camping trip. That way you can find out who is coming and if you want to go. In the app, you can use the calendar and put dates that will work for you. You may say in the app, "This is the date we want to do the first meeting about where we want to go," and the second date we list might be the day when everyone needs to make their first payment. It's kind of like an itinerary. —Chicago participant*

*I send out a group email and get feedback and that's how we figure it out. —Chicago participant*

*There are websites like alltrails.com for hikes in Washington. Also, I have noticed that some stores that are geared toward activities like yoga and the like, have boards, like REI or Lululemon have some posts for certain activities or ideas. Some stores promote that kind of activity. —Seattle participant*

*There is an app called Meetup, and you can create groups and then invite people. It's for everything, though. Maybe you want to start a reading or a running club or a cycling club, it can be anything. People can just see your common interests and before you know it you have a group of 100 people or more, and they set times to go and do whatever that niche activity is. I haven't used it; I have downloaded it, but I have yet to actually use it. —Seattle participant*

*I have used similar apps. They're good and I have gotten involved with a play group for my dog that way. When I first brought my dog home, I wanted to get him involved with other dogs, so I looked it up on Meetup and worked that out. That was the main thing, but it seems like I have done other things. I have looked up other things, but not participated in them. —Seattle participant*

*[Meetup is] nice. It's like she said, it's easy to start a group, you just start a group online and host it. —Seattle participant*

*There is another one called Northwest Hiker [NWHiker] app and it's very similar, but it is focused on hiking and backpacking and climbing. —Seattle participant*

➤ **Focus group participants seem generally interested in online resources to support fishing participating, particularly YouTube.**

Most focus group participants are supportive of instructional videos for learning to fish, although a few experienced anglers are not convinced it is a good instructional technique. Furthermore, discussions of one-on-one personal instruction to learn fishing also occurred during the focus groups. Nonetheless, many focus group participants mentioned YouTube without prompting as a resource to learn fishing or are supportive of the suggestion of YouTube videos. A few other online resources were also mentioned as resources to learn to fish.

*I would just go on YouTube [to learn about fishing]. —Virginia Beach participant*  
*Put [an instruction video on how to fish] on a YouTube channel and I would watch it. —Houston participant*

*Books are great, but they are static, and like we said, fish keep moving, and so something more interactive would be better. YouTube videos would be very helpful. —Houston participant*

*I think Facebook and Instagram could have 1-minute videos and then send you to YouTube. —Houston participant*

*I streamed a YouTube video on the way here. My first place to go if I need to do anything I don't know how to do, it's the go-to place. The visual aspect of seeing someone else do it is really valuable. —Virginia Beach participant*

*My brother-in-law got interested in fly fishing and tying his own flies and stuff, and he learned everything using YouTube videos. His biggest motivation for learning was the first time he hooked himself. He started watching videos right away. —Virginia Beach participant*

*If it is anything like other websites I have been on, videos help a lot. I have seen a bunch of videos on techniques and tricks. ...when you are learning, you can watch videos all day long. —Austin participant*

*I have used YouTube for information about lures and other things. —Austin participant*

*I have used [YouTube] for fishing. I remember my dad watching the TV shows that would tell you how to hunt, how to fish on Saturday morning on PBS or whatever the local channel was. That's pretty much what YouTube does now. People don't always realize that. —Austin participant*

*I guess I would probably use a YouTube video [to learn how to fish]. —Chicago participant*

*The how-to, I would go to YouTube and just search, "fishing for beginners." I would hope to find information about how to cast, what bait to buy, information about equipment, maybe some strategy stuff. —Chicago participant*

*I do watch some exercise videos about how to stretch properly and how to work out. I almost always find them on YouTube. —Tampa participant*

*Yes, YouTube [for videos to learn how to fish]. —Tampa participant*

*I might watch something about learning to fish and identify fish. —Tampa participant*

*I think YouTube videos could be good. I wouldn't watch them, personally, but I guess if I was wanting to learn to fish, I would go to it. —Seattle participant*

*That's how I pretty much learn about everything these days, through YouTube. —Seattle participant*

*I could see [YouTube] working for fishing. —Seattle participant*

*I think people would use YouTube for fishing, absolutely. There are so many things now that people do on their own, because they look up how to do it on YouTube. —Seattle participant*

*I guess I would try to find out where from Trip Advisor. —Chicago participant*

*I think a blog would work. —Chicago participant*

*I would probably Google looking for someone who has information on where to go and how to do it and maybe a list of supplies you'll need. —Chicago participant*

*I use Trip Advisor. —Tampa participant*

*I use apps for some stuff, like the Airbnb with the excursion, that was pretty cool. I have discovered some stuff on Groupon, too. I got Groupon because I am a foodie and I want to explore things to eat in different places, but through that I have come upon some activities that are both indoor and outdoor. I have done some things I would never have done. — Tampa participant*

- **In general, focus group participants—both anglers and non-anglers alike—were not aware of TakeMeFishing.org when asked, but most think the website sounds like a useful resource.**

The vast majority of focus group participants had no previous awareness of TakeMeFishing.org. One focus group participant in the Virginia Beach area said he has seen a reference to the website on a Bass Pro commercial, but all other focus group participants, including active anglers, did not know about the site. After hearing a brief description of the site, however, many participants expressed support, interest, or enthusiasm for the site. Prior to discussion about the site, occasional focus group comments expressed a desire for a resource that, when described, is similar to TakeMeFishing.org. The site does fill a need for those interested in fishing, but there is not widespread awareness of the site.

*I would use [TakeMeFishing.org], though. —Houston participant*

*[TakeMeFishing.org] sounds like everything I need. That would be pretty awesome, though. —Houston participant*

*Everything is in one place and it may not have these secret spots you have to meet someone at, you have a checklist. You can find out what kind of rod and water you need. —Houston participant*

*I think [TakeMeFishing.org] sounds great. —Houston participant*

*I would love to go and browse around and see what [TakeMeFishing.org] has to offer, and if it has something that will benefit me, I will keep using it. —Houston participant*

*I would use [TakeMeFishing.org] for my son and ask him to browse through, take a look, and tell me what he thinks. —Houston participant*

*The fish identification part would be very helpful. —Houston participant*

*I wish I could take my phone out right now and start looking [at TakeMeFishing.org]. —Houston participant*

*[TakeMeFishing.org] would be nice, though, for education. —Austin participant*

*I would definitely check [TakeMeFishing.org] out. Is there information about lures on there? —Austin participant*

*I would check [TakeMeFishing.org] out, but I don't know if I would consider using it as my primary go-to, just because Texas has so much coastline. —Austin participant*

*I would probably use [TakeMeFishing.org] more for a trip if I was unfamiliar with where I was going. I probably wouldn't use it in Texas, but if I were going to New Mexico or California or somewhere else, and I wanted to do something like that, I would definitely take advantage of that. —Austin participant*

*I would definitely surf [TakeMeFishing.org], just because I like to look at stuff, but I would like to look at different places in case I went on vacation and I didn't know certain spots. It would also be nice if there were family-oriented things or kid-friendly things. —Austin participant*

*Everything I would need to fish. —Chicago participant*

*I think the most useful thing on that website would be where to fish information. If you already have a boat, you probably already know where to fish. —Chicago participant*

*Yeah, I think that would be the hardest one. I think it would be the hardest to find somewhere else. —Chicago participant*

*I would want to know where to go and how to get there and then all of the other stuff would become important. —Chicago participant*

*[TakeMeFishing.org] sounds spot-on for me. —Seattle participant*

*[TakeMeFishing.org] sounds great. If that came up on Google and I went to it and everything I asked for was right there, I would totally use that. —Seattle participant*

*People finding that information in the first place would be the hard part. That is the first time I have ever heard of [TakeMeFishing.org] ever, so to me, how do you get everybody to hear about that? —Seattle participant*

*It's kind of something that is like, if you have a tool for something that specifically has all of that information when you Google it, you can find something that has all of the things you need together, then you can kind of figure it all out. —Seattle participant*

## RECOMMENDATIONS BASED ON CONSUMER FOCUS GROUPS

### ➤ **Provide and market easy, family- or group-oriented fishing opportunities.**

Many focus group participants who are not active anglers expressed a modest to moderate interest in fishing. While not all of them will likely pursue fishing on their own, they seem open to trying it, especially if it is easy to get involved. Because so many participants discussed doing outdoor activities with their children, family, or friends, it would be beneficial to market fishing to beginners as a family or group activity, particularly one that could be done in conjunction with outdoor activities they are already participating in, such as camping or hiking. Many participants already participate in outdoor activities with family or friends, and incorporating fishing is a natural extension if they are shown how easy it can be to do so. Do not forget, however, that beginners are intimidated by fishing and are concerned it is difficult. Marketing needs to remove the concern that fishing is difficult, and opportunities need to ensure that beginners are provided with everything they need to make it easy. People are interested in fishing, but they need assistance getting started.

### ➤ **Continue to emphasize fishing programs and opportunities for families and children.**

In addition to citing children as a motivation for their outdoor recreation, many focus group participants associated both current and past outdoor activities with family, tradition, and quality time. Focus group participants who fish or who have fished in the past typically shared memories of fishing with a father, grandfather, uncle, or their immediate family in general as a child. Therefore, those with any experience or interest in fishing likely associate it with memories from their childhood or with the intent of sharing the activity with their children (or both). Continue to emphasize the fishing programs for families and children, as well as the associated memories it can evoke or make in the future. Furthermore, fishing programs for families and children often offer immediate rewards, such as youth fishing events on stocked ponds that nearly always provide a catch for children. The focus groups revealed that interested adults are intimidated by the difficulty of fishing and that early success in fishing usually generates more enthusiasm for the sport. In addition to providing a memorable family experience, the programs for families and children likely address the need for easy and successful experiences to increase the likelihood that beginners continue to pursue fishing.

### ➤ **Provide and market more all-inclusive, educational fishing opportunities.**

The perceptions that fishing is difficult and expensive are important barriers to initial fishing participation. Again, beginners are intimidated by fishing; yet, they are already participating in other outdoor recreation activities. Focus group participants expressed a willingness to try fishing if all the equipment could be provided, if they could receive instruction or guidance, and/or if it was possibly offered as a packaged trip or excursion while on vacation or participating in other activities like camping.

### ➤ **Target Millennials with information resources.**

Millennials are known for their preference of experiences over material goods. Fortunately, many of the Millennial focus group participants expressed the sentiment that they are open to trying fishing. However, many indicated that they have no idea where to fish or how to go about doing so. The general impression from the focus group discussion is that they are certainly open to fishing but are not necessarily going to seek it out. Targeting Millennials with marketing that provides them basic resources, such as where to go and how to get

started, may go a long way if the marketing also plays on their sense of gaining an experience or having an adventure.

Note that Seattle focus group participants, although not all Millennials, also seemed more excited about experiences and adventures, likely a product of the local culture. Providing basic resources and marketing to their sense of gaining experiences and adventure may also work well in areas with a similar local culture to that of Seattle.

➤ **Target Latino families with assistance and resources that will remove their perceived obstacles to fishing.**

While there is some modest to moderate interest in fishing among Latino adults, many of the Latino focus group participants were quick to cite reasons they would not fish. There are many reasons that were given for not fishing among Latino adults, with not having time and not having knowledge being among the top reasons. The expense of fishing came up as well. Latino adults who participate in outdoor recreation focus their activities a lot on family and children. Consider targeting Latino families with marketing of programs and opportunities for family and children, as well as marketing that emphasizes how easy it is to fish. Marketing to Latino families should seek to remove the perceived barriers, including lack of time and knowledge.

➤ **Continue to use images of youth, family, social groups, under-represented demographic groups, and targeted groups in marketing.**

Focus group discussions occasionally revealed the perception that fishing is a quiet, solitary activity comprised primarily of older, white men. While fishing R3 efforts have clearly incorporated a larger array of imagery that encompasses many different ages, demographics, and situations, the research indicates that R3 marketing efforts should continue to do so. Images of youth, family, and friends depict much of the outdoor recreation participation experiences of focus group participants. Incorporating under-represented demographic groups and some of the targeted groups, such as Millennials and Latino families, will continue to make the marketing more personal and applicable for those audiences.

➤ **While the social and aesthetic reasons to fish are the most important, there are some who will be attracted by the excitement of fishing, particularly the excitement of catching a fish (and especially the first fish).**

Although some active anglers in the focus groups openly acknowledged the appeal of fishing as peaceful, calming, and relaxing, many participants who expressed hesitancy or lack of interest in participating often complained that fishing is “boring.” To encourage non-anglers to consider fishing, at least a portion of the marketing needs to emphasize the exciting aspects of fishing, such as the thrill of the catch. Of those who have fished, focus group participants’ memories of fishing often featured two common elements: fishing with family and the excitement of their first catch. Emphasis on the excitement may entice those who heretofore had no interest in fishing.

➤ **Emphasize finding a place to fish.**

Not knowing where to fish is one of the most common issues that emerged during focus group discussion. Even if those who are interested in fishing know they need to get a license and know they need a fishing pole and bait, they may still have no idea where they should go

fishing. TakeMeFishing.org is an excellent resource for this information, but many focus group participants had never heard of the website. Marketing this resource specifically for the purpose of connecting beginners with information on where to fish could potentially remove an important obstacle to fishing. Having all states use the free website plug-ins developed by RBFF is key to reducing barriers and making fishing more convenient.

➤ **Set new participants up for early success in fishing, which provides confidence and motivation to continue learning and participating.**

Focus group discussions included suggestions for fun and easy fishing events for kids, particularly ones that nearly guarantee a catch, as well as memories of first catches that sparked excitement. Given the perceptions that fishing is boring and too difficult, providing opportunities for early success in the form of a catch may provide success and encourage interest that will foster continued participation. As one focus group participant aptly observed, “Success builds confidence.”

➤ **Agencies should increase their marketing of TakeMeFishing.org and emphasize the valuable information resources it provides for getting started fishing.**

TakeMeFishing.org already addresses so many of the concerns and constraints expressed by focus group participants, such as learning how to fish, finding where to fish, how to obtain a fishing license, and accessing instructional and supportive videos for fishing. A problem is that many focus group participants, even experienced anglers, had never heard or used the website prior to group discussion. After hearing a brief description of the site, many participants expressed support, interest, or enthusiasm for the site. TakeMeFishing.org is a valuable resource for current and potential anglers, it just needs to be brought to their attention. Agencies should consider expanding and further targeting current marketing efforts. The general population needs to know about this resource, as it is uniquely designed to bridge the gap from interest to participation in fishing.

➤ **Do more than post on social media; engage and interact with followers, groups, and other organizations.**

To varying degrees, most focus group participants use social media, particularly Facebook, to plan outdoor recreation activities and trips. Some participants use social media to communicate with and establish plans with friends, while others use it to search for or request information that will eventually inform their planning. TakeMeFishing.org already has a well-established Facebook page and shares useful resources for the information participants seek most, such as where to fish or what family events are being offered. However, not everyone is aware of the website, nor the Facebook page. Bolstering interaction with those on Facebook who are looking for such information may be an effective means of increasing viewings and sharing information.

In addition to the informative posts on the TakeMeFishing Facebook page, consider asking questions on social media to start a conversation. For example, “We’ll be fishing on Lake Michigan this weekend. Where will you be?” or “Share a photo from your fishing trip this weekend.” Also consider starting and providing early administration for Facebook groups in specific locations to promote fishing in that area, such as Chicago where many Millennials did not know where to fish or how to access Lake Michigan. Once the group is active and well-established, interaction may not need as much administration from RBFF and may continue independently with local residents sharing information about how and where to fish.

Increasing interaction will foster growth and result in increased shares, thereby increasing distribution of information needed to help people start fishing.

➤ **Provide and emphasize basic information with the assumption that beginners need assistance with every aspect of fishing.**

Focus group participants clearly perceive lack of information and knowledge to be one of the most important obstacles to fishing participation. As mentioned previously, TakeMeFishing.org is an incredibly valuable resource for overcoming this obstacle. However, it is worth emphasizing how little some non-anglers know about fishing, regardless of interest level. For example, confusion arose in one focus group in response to use of the term “angler.” A couple participants did not know that “angler” referred to someone who fishes. Some focus group participants also did not know a fishing license is required to fish recreationally. Quite a few focus group participants in Chicago, which is located on the shore of Lake Michigan, do not know where to go to fish or if one can fish on Lake Michigan at all. Even some focus group participants who had fished as children admitted that they do not have much knowledge as adults regarding licensing or where to fish.

Efforts to inform and motivate cannot take for granted that targeted audiences have knowledge of basic terminology or processes involved in fishing. To reach out to those who have little to no experience in fishing, the assumption should be that beginners need assistance with every aspect of fishing, such as how to obtain a license, where to fish, how to access or travel to a fishing location, and more.

## 4. FOCUS GROUPS OF PROFESSIONALS

This chapter covers the results of the qualitative data collection with fish and wildlife agency professionals who work on angler R3 programs and efforts (in the report, these individuals are generally referred to as “R3 professionals”). Specifically, four focus groups were conducted with R3 professionals in each of the four regions of the Association of Fish and Wildlife Agencies, including the Southeast, Northeast, Midwest, and Western Association regions (see the map presented at the beginning of Chapter 2).

Each group consisted of R3 professionals with experience working on R3 programming and implementation for the agencies in that region. The focus groups with R3 professionals were conducted using a discussion guide developed by Responsive Management and RBFF. For convenience, the focus groups were conducted via telephone conference call. A full discussion of the focus group methodology is included in Chapter 7.

### MAJOR FINDINGS

- **The extent to which agencies prioritize angler R3 appears to vary considerably.**
- **Some agencies lack a cohesive “shared vision” in terms of angler R3.**
- **For some agencies, angler R3 is not as much of a priority as hunting R3—relatively stable participation in fishing (compared to declining participation in hunting) appears to make the need for angler R3 programs less urgent than the need for hunter R3 programs.**
- **Given finite funding, staffing, and other resources, some agencies have difficulty deciding whether to prioritize recruitment, retention, or reactivation.**
- **Some agencies are not regularly evaluating the effectiveness of their angler R3 programs.**
- **Some agencies continue funding and implementing angler R3 programs whose effectiveness has not been documented through systematic evaluations—these programs often continue because of inertia or because they are “pet projects.”**
- **The research suggests that, while leadership in many agencies recognize the need for angler R3 programs, some agencies may still be slow to develop and implement programs that focus exclusively on angler R3.**
- **A lack of funding is a persistent issue affecting many angler R3 programs.**
- **Some R3 professionals perceive fishing access to be as important to fishing participation as the availability of angler R3 programs.**
- **Some R3 professionals feel that the perceived lack of relevance of fishing to certain audiences (especially females, Latinos, youth, and residents of urban areas) is as detrimental to fishing participation as the availability of angler R3 programs.**
- **In line with the above, females, Latinos, youth, and urban residents are commonly viewed as priority target markets for angler R3.**
- **Many R3 professionals recognize that shifting demographics and changing motivations and interests among younger generations will require agencies to be more attuned to the customer needs and expectations of these segments of the population. As an**

example, some R3 professionals pointed out that agencies must make the planning process for fishing outings easier for customers.

- Many agencies view the Outdoor Recreation Adoption Model as a useful tool for categorizing and inventorying their existing programs.
- While email is widely perceived by professionals to be the most cost-effective way to communicate with anglers, a number of agencies face challenges related to emails. In some cases, R3 professionals cannot run basic data queries of their license databases. Additionally, the inability (or imperfect ability) of agencies to collect customer email addresses prevents or hinders follow-up and continued contact with license purchasers and/or program participants.
- While social media websites and apps (especially Facebook and Instagram) are acknowledged by agency professionals as important ways for agencies to stay in touch with anglers and the wider public, some agencies avoid using social media to a certain extent for fear of losing control of the conversation—this was said to occur when comment sections devolve into complaints or debates about regulations or agency policies.
- Some agencies lack a dedicated social media coordinator—social media upkeep and content sometimes falls to R3 coordinators, thereby adding an additional responsibility and reducing time for other (more hands-on) initiatives.
- Persistent challenges affecting angler R3 in some agencies include inflexible procurement and contracting policies and difficulties with (or lack of) information technology staff. Specifically, agencies are sometimes prevented from purchasing needed products, programs, or systems because they are locked into existing contracts with vendors. In other cases, agency IT staff are nonresponsive or slow to address data requests from angler R3 coordinators (this can sometimes affect the ability of coordinators to obtain data necessary for the development of plans or programs).
- RBFF is widely commended for offering a number of tools and resources that R3 professionals find helpful. Many R3 professionals value RBFF’s marketing workshop, its distribution of best practices and lessons learned, and its toolbox of images for marketing campaigns. One minor criticism of the latter related to a desire for more region-specific images (it was suggested that many of the stock images available through RBFF are somewhat narrowly focused on east coast locations).
- RBFF’s grant program is highly valued, although many R3 professionals would like the grant cycle to be extended—the current timeline was often described as too compressed (some observed that the timeline for project deliverables is too rigid).
- Given agency budget constraints in many states, there is a desire among some R3 coordinators for agencies to explore or leverage partnerships with NGOs and the fishing industry—such partnerships could be especially useful by providing material for R3 programs.

## PROFESSIONALS FOCUS GROUP RESULTS AND FINDINGS

### Agency Angler R3 Programs in General

➤ **The extent to which agencies prioritize angler R3 appears to vary considerably.**

Relatively few agency professionals reported having an R3 program that specifically focused on anglers, although virtually all participants agreed that the concept of an angler-specific R3 program was growing increasingly important. It appears that while some state agencies have made angler R3 a distinct priority (and have dedicated time and resources to building multi-faceted plans specific to angler R3), other agencies lack established angler R3 plans and programs. In some cases, it was mentioned that these agencies have not had the opportunity to create what they perceive to be an adequate angler R3 program—this was commonly attributed to a lack of a shared agency vision (sometimes stemming from leadership), a lack of funding, inadequate staff support, and/or limited institutional knowledge on angler R3. Some professionals mentioned that their agency's angler R3 efforts are not distinct from overall R3 programs focused on hunting and other activities as well.

*We do [have an established angler R3 program]. Our vision kind of isn't focused on one activity though. We're focused on hunting, fishing, watching wildlife, recreational shooting, and paddling or boating. That's kind of our scope. But we specifically have visions for each of those activities and fishing is a part of that. With myself as the R3 coordinator, I work hand in hand with the angling education coordinator as well .... We're trying to revamp that position to be focused on more of a hands-on [approach], increasing participation, and reaching the goals of R3. —R3 professional*

*I'd say we are much behind some of the other states as far as kind of gathering up the division [to have a formal angler R3 program]. But we've got some traction in the last six months on R3. One of those is a strategic plan. The very first thing in that is to address what R3 means to our agency. We spend a lot of time internally talking about what is recruitment, what is retention, what this program is for. —R3 professional*

*We're just now getting into R3. Now, we've done R3, [but] we never called it R3 in the past. We just didn't record any of the findings or anything. So, I've been made familiar with it. You know, the few conferences I've been to and now when I bring back [what I've learned], there's only a few people that even know what I'm talking about when I talk about it. So, once again, we're in the early stages of forming our R3 plan. We actually are doing quite a few things that focus on R3, but we didn't even know that they were focusing on R3. So, we're still getting our act together with that. —R3 professional*

*I don't know if we have necessarily an R3 vision, but I think that our broader goals are built around numbers related to participation overall, number of new recruits that we have coming in, and the churn of our customers. We have some pretty specific strategies related to the hunter and angler programs that we pull from. And so, we try to do things that are enhancing the customer experience, and look for gaps in that journey, and see what we can do, whether it's by ourselves or with partners, to fill any gaps that might be out there that get in their way of becoming hunters and anglers. —R3 professional*

*We have so many dysfunctional programs. And there's so many dysfunctional things in our agency now. We can't even get payments processed. We can't get people hired. We can't get just our basic infrastructure going in the right direction. So those things are getting so much*

*attention right now. It's very hard to bring this [angler R3] up at this point. —R3 professional*

➤ **In order to create successful angler R3 programs, a shared agency vision is essential.**

Some focus group participants felt that angler R3 is not always a high enough priority for agency leadership and other staff; it was mentioned that some agencies do not staff specifically for angler R3, while others assign angler R3 tasks to staff who are busy with other responsibilities. Another example on this point concerned agencies that focus on hunter R3 at the cost of minimizing angler R3. Many participants explained that, without a shared vision recognizing the importance of angler R3 (including an agreed upon direction for programs with broad agency buy-in), successful angler R3 programs are unlikely to be created.

*I would say that we do not have an overall vision. I'm a marketing professional, so I came in with no biological background, and attacked this from a marketing perspective, and looked at how do we recruit new people, how do we retain, and how do we keep or get our lapsed people back? Funding has been the biggest issue with us in that it's not a coordinated effort because they're in separate divisions. We go after the new recruits in the education section; then, in the retention category, our license purchasing system was lacking because we don't have emails. The lapsed [anglers], we can reactivate them with snail mail postcards, but again, that becomes a funding issue. Three different departments kind of tackle it, so we don't have a coordinated vision. We just keep doing things together. —R3 professional*

*The majority of our leadership are biologists who came into the agency starting out on the ground as a district wildlife manager, then maybe went into the angling side of the agency or the hunting side of the agency. They're biologists, who are introverts by trade, because they were trained and they wanted to work with wildlife. They're scientists, and not necessarily extroverts, like myself, who want to get out and do marketing and get out in front of the public. We finally got a director who said every single biologist has to contribute [to R3 in some way]. And it's been phenomenal that suddenly there has been a change in the attitude, but it took that top-down leadership thing. —R3 professional*

*We're doing some good things, but we don't have a shared vision, a shared understanding of what we're trying to do. We do have a plan that I can share with you, that says these are the things we're going to do to get to a real R3 plan. We've also started the process and we're on track for having an R3 coordinator... so I think that will give us more capacity to get some of these things done. —R3 professional*

➤ **Some agencies have difficulty deciding whether to focus on recruitment, retention, or reactivation.**

Some participants suggested that there needs to be agency-wide consensus regarding the top priority for angler R3 efforts, especially given limitations in staffing and funding: recruitment, retention, or reactivation. Although it was often acknowledged that all three objectives are important in their own right, comments from some R3 professionals suggested that agencies sometimes need assistance in determining which types of initiatives represent the top priority.

*We're all very comfortable with the R3 model, but we may not agree whether this program fits into a retention or a recruitment plan. So, I think we're missing that, which is of course huge, and I think we're also missing some willingness to change a program. —R3 professional*

*But when we look at it, there's not a ton of data. We don't have this data on where should we be focusing some of those efforts...But just some of those things that we could aggregate on who should we be talking to and what do they need to convert—I see that as something that'd be really useful for us as we're creating our plans. —R3 professional*

*We are trying to get better at selecting groups to go after. That's one of the biggest things we're trying to push for as a state. Instead of doing these great big broad programs for anybody and everybody to come to is just even having the description to open it up for everybody. But [instead], this program is intended for X and that's what it will be focused on. But a lot of times it's just basically whatever our district, or our regional staff, wants to try. At this point we're trying to do what we can and see if anything sticks that's really good. —R3 professional*

- **Agencies should be willing to evaluate and potentially discontinue older programs that are not working. Also, before developing new programs, agencies should review any relevant data available regarding program design and implementation.**

Comments from the discussions suggest that some agencies have maintained programs whose effectiveness has not been reliably demonstrated; this was attributed to the fact that some key agency figures are somewhat resistant to change, and because some programs are “pet projects.” As a result, some agencies are failing to develop new, potentially more effective angler R3 programs. Some focus group participants observed that leadership and supporting staff must be willing to discontinue unproven or under-performing programs in the interests of replacing them with new, more effective or efficient programs (scalability and cost-efficiency were sometimes named as desirable program characteristics).

At the same time, some agency staff were said to be reluctant to implement new programs or efforts for which little or no data regarding their likely effectiveness is available.

*I think we have some programs that are very promising or produce good results, but we just can't reach enough anglers with those programs, which is one reason why the email marketing is very cost-effective—it's relatively inexpensive, but it reaches large numbers of people, who may be lapsed or churned, or churning. If we can identify strategies that can reach large numbers, and get them out participating, and one strategy for doing that would be getting existing participants to draft, to recruit new folks. I believe that scalability is a real issue for us—having efforts that work on a large enough scale to move the needle. —R3 professional*

*What we focus on right now, while we're developing an R3 plan, is developing good sound data and understanding our data, which is helping to target our efforts and direct the efforts of where our biggest bang for our buck would likely be. Most of our newer efforts that are probably showing more success have been on the marketing side, and particularly in our marketing campaign. The area we're probably struggling the most is evaluating some of our on-the-ground programs such as the old basic fishing festival—things like that are ongoing*

*and very popular, but we're not 100% certain it's actually moving people along in the Outdoor Recreation Adoption Model. —R3 professional*

*We have a low percentage of participation in the most populated counties of the state. So, there is at least a pretty solid vision as to where we want to go that isn't necessarily shared by many others in the agency; their vision is basically doing more of the same, and that includes focusing on traditional audiences, essentially providing more for our core customers, and not really recognizing who else we need to reach. —R3 professional*

*And then you've got to convince them that they're not doing something bad [in terms of a program], but they're also doing something that's not needed. So it's hard to distinguish that, especially when they develop it as a pet project. —R3 professional*

- **It appears that, while leadership in many agencies recognize the need for angler R3 programs, some agencies may still be slow to develop and implement programs that focus exclusively on angler R3.**

Although some focus group participants felt that they had the support of their agency leadership regarding angler R3 efforts, it was suggested that some angler R3 programs still suffer from a lack of necessary resources and limited staff. In other words, while leadership may be convinced of the need for angler R3 programs, the realities of limited funding and staff support continue to affect program follow-through and effectiveness. As mentioned, some R3 professionals also feel that long-established programs without data to support their effectiveness continue to be offered because of inertia. Separately, some participants mentioned that older programs that were not developed specifically to recruit, retain, or reactivate anglers are nonetheless sometimes “rebranded” as R3 programs (as if to satisfy a need for an R3 initiative in name only).

*I would say that our leadership is all bought in to the concept of R3, the need for it; but it is a strategic challenge and not something that they're reacting to on almost a daily, weekly basis. We're right in the middle of our legislative session and that is all-consuming; and then commission regulatory cycles, and so, when you have constituents that are very vocal and banging on them [leadership] about various different issues and we're responding to that, sometimes R3 can just get punted to the side, and then it just keeps moving forward but doesn't have the all-consuming focus from top to bottom of the agency all the time. —R3 professional*

*We've turned a whole new leaf starting in the fall from our leadership down that's holistic; we still see declines in participation, and that obviously comes out through our license sales, but hopefully it's becoming more of an even playing field in terms of hunter, angler R3. Unfortunately it wasn't always like that, but luckily I think that's changing. —R3 professional*

*My personal sense is that the divisional leadership fully supports moving forward with a vested R3 strategic plan and they just in general support the R3 movement. —R3 professional*

*There's a lot of confusion out there, in terms of old hunter and angler education programs being rebranded as R3 programs; the programs were never designed to be R3 programs but are not being evaluated as such. Everybody's just trying to make whatever they're doing R3.*

*Any success they are having at R3 is because of working relationships already in place and not due to any organized effort from leadership. —R3 professional*

➤ **As mentioned, lack of funding is a persistent issue affecting many angler R3 programs.**

When asked about barriers and challenges affecting the success of angler R3 programs, funding was a frequent response among participants across the four groups. A number of focus group participants compared funding for angler R3 efforts to funding for hunting R3 efforts, sometimes observing that more funding exists for the latter (e.g., because of Pittman-Robertson excise tax revenues) than for the former. It was also remarked that the relative stability of fishing license sales makes the apparent need for angler R3 programs less urgent than the need for hunter R3 programs (again, compared to the decline in hunting participation nationwide). A separate funding issue is the relative low cost of contacting anglers through email as opposed to mail; however, this is complicated by the fact that many agencies have email addresses for only a fraction of their licensed angler population, which then raises the question of how to contact more of the angler population through mail or another (potentially more expensive) means.

*Pressure is definitely funding. Right now, we're doing a lot on the hunting side of things because of the PR funds that we have. But the funding on the fishing side is not nearly as robust. —R3 professional*

*It comes down to funding. Do you mail something or do you email something? It's much easier to email something, but getting a hold of those emails is critical, and we looked heavily at churn and access to keep those people. Only 25% of our angler database has email addresses. That creates a funding barrier to be able to get to them. —R3 professional*

*They [agency leadership] are saying, "Well, we need to broaden our [programming]." I'm like, "You've just cut all of the funding for the rest of our program that did that." ... There's a lot of confusion out there. —R3 professional*

*Right now, we're doing a lot on the hunting side of things because of the PR funds that we have. But the funding on the fishing side is not nearly as robust. —R3 professional*

*You have to always be on the lookout for new ways to fund things or to talk to people about why we can't do certain things. —R3 professional*

*We've all figured out that partnerships are important, but starting to really reach out to not just our hunting and angling partners but maybe some of the bicycling community or others that don't pay in; we're looking at the broader picture ... maybe we're going to have to go further with funding. We just passed a funding legislative bill, but it did not raise nearly enough, and so we're looking even broader down the road for maybe a tax or something like that. —R3 professional*

## **Improving and Monitoring Angler R3 Programs**

➤ **Focus group comments suggest that some agencies are not regularly evaluating the effectiveness of their angler R3 programs.**

Program evaluation techniques were a concern for many focus group participants. While license sales and churn rates are commonly relied on to measure the “big picture”

effectiveness of angler R3 programs, a number of focus group participants felt that these proxy indicators are an imperfect method of evaluating R3 programs.

As mentioned, it appears that issues related to time, staff, and other resource constraints affect not only the creation of new programs but also the evaluation of existing programs (some focus group participants suggested that it is enough to keep their current R3 programs simply up and running, much less evaluated). In some cases, evaluation was said to be difficult if not impossible because of logistical challenges such as licensing system limitations: it appears that some R3 professionals lack the ability to run basic data queries of license databases or must wait an inordinate amount of time for results after making a data request of IT staff. In many cases, the inability (or imperfect ability) to collect customer email addresses prevents follow-up and continued contact with license purchasers and/or program participants. At the same time, not all participants in the focus groups said they experienced such frustrations with licensing databases—some said they were able to access and analyze license data rather easily and can monitor trends and determine program or campaign effectiveness.

*We just recently completed a study where we took data that was collected from participants in a variety of treatments, like an education program or people who submit angler award applications, and went looking for them within our license database. And we determined not only the characteristics of the participants in terms of their previous license history, but also their pre- and post-treatment purchases. We also looked at potential customers, and what percentage of them bought their first license within 18 months of participating, and we saw conversion rates of what we'll call newly recruited buyers in the low single digits and as high as the low 30% range. So that incorporated probably five or six years' worth of data that was collected, like 50,000 participant records. It was quite an undertaking. —R3 professional*

*One of the things that we look to is just license sales. License sales are actually going up. A lot of times we use that as an excuse. "Hey, license sales are going up, so everything we're doing must be working." But one of the things I want to do is stop and look at, what's the purpose of this fishing clinic? Is it really to sell licenses, or is it to introduce someone to the sport? And measure things on a much finer scale. We're not doing that now, but we want to. Right now, the only thing we're measuring is at the end of the year, did we sell more or less fishing licenses? —R3 professional*

*Currently, we do not have a way to measure the success of our R3 efforts in angling. We are trying to change that. We are looking at Qualtrics, which is sort of a sampling survey tool that we have, where we can start registering electronically all the participants that we have in the different programs that we offer for angling. We can then take some sample sizes and run them through our licensing system to see if we did have some license sales that way. We are trying to create some six-month, 12-month post surveys to see if people have taken on additional programs. —R3 professional*

*On top of just basic Google analytics and everything like that, I would love to be able to identify some indicators of participation other than licenses sales. That's always been a challenge. You know, license sales are one measure, but I'd love to see some others out there that we could actually utilize. —R3 professional*

- **Most R3 professionals who took part in the focus groups believe that agencies, to the extent possible, should hire dedicated R3 coordinators and/or designate staff specifically to R3 duties—it appears that in some agencies, R3 programming and implementation become the responsibilities of staff who are busy with other non-R3 duties.**

Some focus group participants noted that their agencies do not have staff specifically designated to angler R3 efforts. It was suggested that, in some cases, angler R3 tasks are assigned to staff who are not able to properly or fully prioritize R3 (or staff whose training and backgrounds are not well suited to R3); other times, angler R3 efforts simply become a lower priority than other agency duties. Finally, some group participants indicated that angler R3 is handled alongside hunter R3, with little distinction between the two approaches.

*There's just one R3 coordinator; we do have someone else who kind of speaks more to the fishing side of things, but really, it [hunter and angler R3] is kind of the same strategy. —R3 professional*

*One of the recommendations of our plan would be to hire an R3 coordinator, but what we've experienced is, those individuals that are tasked on that writing team are pulled in so many different directions that sometimes they have higher priorities, whether it's a commission meeting, or a legislative task, or some other big responsibility that is just right on the calendar, whereas the R3 writing plan is an agency priority but sometimes doesn't rise to the top. And so, we have struggled with making quick progress on drafting our R3 plan. —R3 professional*

*Again, R3 either gets thrown to somebody with a regular job, or they're bringing in a brand-new person who's just trying to figure out what the heck is going on. They're trying to move the needle with people who all have more seniority and are a higher classification. —R3 professional*

*We are just getting off the ground [in terms of R3 programming]; they [agency leadership] have not included angling or boating in that part. I have encouraged them to and it's not the case right now. There is no dedicated staff for angling and boating to do R3. —R3 professional*

*I work overtime just to get some of this stuff done and it's just very frustrating because I wear like five different hats and I feel how important this is. But Fisheries has no staff. They're trying to hire people just to backfill other positions from retirements or whatever. And it's just hard. I don't know how to make it more of a priority here. —R3 professional*

*Not having the staff and the infrastructure to produce the product is really starting to hurt us now because we've got some great opportunities, but we've got old and outdated stuff and really didn't have until recently the resources to even begin to look outside. —R3 professional*

- **Angler R3 is not as much of a priority as hunting R3 for some states.**

Several focus group participants suggested that, in their agency, hunter R3 is a higher priority than angler R3. Some of the reasons offered for this are that formal hunter education requirements necessitate regular communication between the agency and hunters (making R3

programming a natural extension of this communication), that outside interests are sometimes able to influence agencies to make hunting a higher priority than fishing, and that the agency is simply maintaining the status quo by devoting more time and attention to hunting over fishing. Some participants also commented that those who work on angler R3 are sometimes not as familiar with R3 practices in general compared to their hunter R3 counterparts.

*The hunting side has more touch points or doorways that people have to go through, obviously hunter education being the main one, where you have that opportunity to collect emails and reach out, and you just don't have that with anglers. —R3 professional*

*We need leadership involved, but our agency is huge and it's very hard to have R3 float its way to the top, and the only thing they're probably ever going to hear is the hunting side of it because that's the only thing that's active right now. —R3 professional*

*Whatever they're doing in hunting, we do not need to be doing the same thing in fishing, because fishing is very different in terms of the threshold of participation, the access, the barriers to participation, social acceptance. It's not the same as hunting—they're related but they're not the same. I don't know that we sufficiently have addressed what we need to do for fishing separate from hunting. Some of our outside partners are just [of the belief that] it's all about hunting. We are very focused on the hunting stuff, likely because of external partners and a lot more people working with hunting on outreach in my department, versus the angling side. So, again, there's a lot more conceptual support than on-the-ground, real, tangible things happening that move it forward. —R3 professional*

*[Declines in fishing participation have] not been as precipitous as hunting. We don't lose as much with every license and we had a bigger number to start. And so I think there's not the urgency on the angling side, even though they say there is. That's one of the things that I see: [people say], "Yeah, we're doing pretty good." I'm like, "We're doing pretty good compared to what? Where's your marker? Where are you starting?" —R3 professional*

➤ **Some R3 professionals perceive fishing access to be as important to fishing participation as the availability of angler R3 programs.**

Several participants noted that participation in fishing is suffering in part because of limited access to fishing areas (including urban fishing areas). It was suggested that even the most well-developed marketing and angler R3 plans would be worthless without public access to quality areas for fishing.

*Just improving fishing opportunities in urban areas, improving access in those areas, is important. We know in many states things have changed in terms of where people live. The counties that are increasing in population are those urban, suburban counties, and we need that focus on fishing opportunities and access in those areas. —R3 professional*

*A number of years ago we did some creel survey work. We actually saw notable increases in angler participation after we improved access. So that's also an important thing that I think many people have noted has made a difference in terms of getting more people fishing. —R3 professional*

*We're looking at physical access of land and water. You know, land-locked areas, lack of boat launches, restricted access because there are Forest Service roads or BLM roads and gates, and easements. —R3 professional*

*As far as the access piece, we're working with ArcGIS Solutions to create apps where people can find resources near them, whether it's hunting or fishing or they can search by activity to find something within a 30-mile radius. —R3 professional*

- **Some R3 professionals feel that the perceived lack of relevance of fishing to certain audiences (especially females, Latinos, youth, and residents of urban areas) is as detrimental to fishing participation as the availability of angler R3 programs.**

There was discussion in the four groups about the concept of current anglers “aging out” and the corresponding needs to widen the angler customer base by increasing general awareness of the work and activities of fish and wildlife agencies, and by cross-promoting fishing with other outdoor activities. A number of R3 professionals spoke of the importance of targeting youth and non-white audiences specifically; on this topic, a few people mentioned the importance of diversity in agency marketing materials and images so as to maintain relevance to potential new anglers of all backgrounds.

*We're looking to get more women fishing, and keeping our existing anglers fishing as long as we can because we know they are dropping off and dropping out of the population. We are continuing our efforts to recruit younger anglers. —R3 professional*

*How do we become relevant and how do we stay relevant to 2019 and beyond? It's not accessible if it's not relevant. And then, they're looking at inclusivity barriers to make hunting and fishing more accessible. That would be unintentional oversights like lack of signage or information in multiple languages, or historical or cultural bias, like racism, sexism, and ageism. —R3 professional*

*We are moving more and more towards that young adult, that 20- to 35-year-old audience. Really trying to get a diversity of images and being more inclusive in a way that we portray these activities. The images have really been a struggle for us. But we've used a lot of social media marketing as well. Live Facebook pages, events, and all that kind of stuff to reach these new audiences. But it's something that I'd say that we're fairly young at as an agency, so we need to mature. —R3 professional*

*We're using a lot more women and diversity of people in our social media and e-newsletters and brochures to picture inclusivity first and younger audiences first. Because just gray haired, older men, sorry, but we need to get people to see themselves in the picture. —R3 professional*

- **By encouraging online license purchases through their own websites (rather than through third-party vendors), many agencies hope to be able track anglers more efficiently.**

In addition to online fishing license purchases making it easier for agencies to track customers, some group participants felt that license purchases through agency websites would be more convenient for customers themselves. Some R3 professionals mentioned that obtaining customer email addresses through third-party vendors and retailers is unreliable

and yields mixed results at best. Regarding user experience with agency websites, a few people spoke about the procurement challenge of contracting with a new online license vendor to introduce an improved or more convenient licensing system (especially after having worked with another vendor for a certain time period).

*The majority of license purchases in our state are done through third-party vendors: the Bass Pros, the Walmarts, the Academy stores and that type of thing. They're not required to ask for an email address, and so we're trying to push more of our license buying online, where we do capture emails; that proportion [of anglers with valid email addresses] continues to grow each year, but that's been our biggest limitation: to be able to fully utilize those email marketing toolkits, we need to continue to expand the number of emails that we have. —R3 professional*

*I think one of our biggest challenges is that we're slipping behind on the technology front on the online license buying customer experience. I think a lot of it has to do with [the fact that] we've had kind of a rolling renewal contract with this vendor and I think our agency is just reticent to move to a completely new license vendor and a wholesale change to that process, even though I've seen other states recently do that—they've got some very compelling stories about how neat the system works for them as far as auto-renewal to the license buying experience of the customer and the ease of which that's enabled. —R3 professional*

*I think in the past we've not been as customer-focused or driven, but I think it's time that we need to be and we're starting to try to figure out how to make things simpler for the customer. Because if they can't easily get a fishing license, if they can't easily do these things, [then they are likely to] say screw fishing, I'm just going to go do this [other activity] instead. I think we have to listen to our customers so we can make it as simple and easy as possible for them to enjoy these activities. —R3 professional*

*I've been in state government for years now and it makes me crazy. I'm like, "Okay, we've got all this great technology and everything, and it's harder than it's ever been. What the heck?" —R3 professional*

➤ **Many R3 professionals acknowledged the difficulty in tracking youth participation (especially because in many states, anglers under a certain age are not required to possess a fishing license).**

One suggestion on this topic was for agencies to issue free licenses to youth anglers as a way of simply getting these participants into the licensing system database for tracking purposes. A few people also mentioned mentor or apprentice license programs as a way of licensing new youth anglers without requiring a fee.

*Under the age of 16 here, you don't need a fishing license, so it's really difficult to track these kids and what happens to them and [to determine] whether our programs are actually translating into lifelong participants. —R3 professional*

*We have gone to some apprentice and mentorship programs where it's like an invitation to take someone new fishing, and you have to have a couple of experiences with that person. Same thing with hunting where you have to have a couple experiences with the person as a mentor. —R3 professional*

- **Many R3 professionals recognize that shifting demographics and changing motivations and interests among younger generations will require agencies to be more attuned to the customer needs and expectations of these segments of the population. As an example, some R3 professionals pointed out that agencies must make the planning process for fishing outings easier for customers.**

There seemed to be a consensus across the four groups with R3 professionals that agencies in general must work to better understand the needs of their constituents and customers. Some participants described their agencies as being solidly customer-focused, while others stopped short of describing their agencies this way. On this topic, a few people mentioned the perceived complexity of fishing regulations and the extent to which agencies should attempt to simplify regulations to encourage more fishing participation. A recurring theme in these discussions concerned the extent to which angler demographics are shifting across the country—it was sometimes pointed out that changes to the demographic makeup of the angler population will require refined and thoughtful R3 techniques to successfully connect customers to the state agency.

*I do believe that our agency is customer-focused. Our division has gone through the regulatory simplification process. We hired a firm last year to conduct focus groups and surveys; we wanted to hear from our anglers about any particular barriers they were seeing in regard to our fishing regulation booklets. And we've instituted those changes in the most recent versions of that book. —R3 professional*

*We're definitely not customer-focused. I think in the very beginning, when we first started buying licenses and tags, it was set up for opportunity, not necessarily success. And we have maintained that, and so we sell lots of tags with low success rates and seasons are not during the optimum time of the year in order to provide the opportunity. And so, for the long-term, that's what customers wanted and that's how that was established. Fast forward 40 years to now, and that has shifted: people seem to want, based on social media feedback and some surveys, success over opportunity. —R3 professional*

*Now that we have our fishing app, it's taken some of the angling pressure off of the call center [that our agency maintains for inquiries]. We'll help customers use the app, [learn] where to go fishing, look at the stocking reports, sign up for the e-news—that one-on-one customer contact is still really special. Yet, on our customer journey to purchase, we implemented the new system last year and our regulations are a little complicated. And so, it hasn't been as easy of a process, and it's seven or eight steps to get to where you can even start the buying process. And so, we're really focusing on what can we do on the electronic customer journey. —R3 professional*

*Yeah, a lot of times we [view] ourselves as like a driver's license. We're a barrier for them to go do what they want. And they have to come to us; we don't necessarily say we're friendly and nice and welcoming. It's more, "Well, you have to get your stuff [required licenses] to go fishing." —R3 professional*

*... How do you define a "customer"? We talked about stakeholders and constituents and customers—who are those people? Are we just talking about those that have purchased a license historically? Or have a current license? Are we talking about people that participate in our events? Are we talking about use? Are we talking about potential participants? It's one thing that we've tried to instill in our staff is to think a little more outside the box... One*

*thing that can cripple any type of effort is just the miscommunication and terminology. —R3 professional*

*I mean it's a complete disconnect. We want to be rural. We tend to project ourselves on the customer. Even the simplest look at our data would show that we have a complete disconnect where we're putting time, money, and resources. —R3 professional*

➤ **Many agencies view the Outdoor Recreation Adoption Model (ORAM) as a useful tool for categorizing and inventorying existing R3 programs.**

Despite fairly widespread agreement that the ORAM is useful in understanding how to organize and categorize R3 programs (including their planning, development, and implementation), a small number of R3 professionals described occasional confusion among agency staff about ORAM- and R3-related terminology (this was said to affect determination of the goals and objectives of a planned program).

*We've been using some form of it [ORAM] going back into the '90's shortly after we started to see big declines in sales. It's helped internally in a couple of ways. One is to try to communicate to people that an introductory program, a kid's fishing derby, is not going to result in an angler by itself. It's helped in trying to do some internal education, it's also helped in trying to make sure that we're providing goods and services to reach those later stages of adoption and participation. So, it's been very helpful and that's kind of the framework that we've built R3 stuff around. —R3 professional*

*It's not a rocket science model, but I do find it helpful. We all do. It's very interesting that pretty much all of our R3-related staff in one way or manner use it. It's more to help focus yourself, to reorganize your thoughts. You take a step back and think, "Okay, where does this model help to organize and help to think, what is my goal? What is my evaluation method to do that?" It doesn't solve any problems. I would say it just helps organize the thoughts in our own head. —R3 professional*

*We have the issue of people looking at the ORAM and R3 as different ideas. And that really slows down the progress moving forward, because the people that are using it to develop programs reached out and said, "Oh, this is what we're doing and this is R3." Then they're like, "Well that's not what we're doing. We're not going to do that because that's not part of what we believe R3 is." —R3 professional*

## **Angler R3 Technology**

➤ **While email is widely perceived by professionals to be the most cost-effective way to communicate with anglers, a number of agencies face challenges related to the collection of customer emails. In some cases, R3 professionals cannot run (or have difficulty running) basic data queries of their license databases. Additionally, insufficient email coverage (i.e., having valid email addresses for only a portion of the individuals in a database) often prevents or hinders follow-up and continued contact with license purchasers and/or program participants.**

Although many participants agreed that emails can be difficult to capture for a number of reasons, most felt that email marketing represents one of the best tools for angler R3 (especially retention and reactivation).

As mentioned, one of the biggest challenges with collecting email addresses is obtaining accurate information during brick-and-mortar license sale transactions, either because of improper data entry, reluctance on the part of the customer to share his or her email address, or because the store or retailer in question simply does not attempt to collect the email address. Additionally, it was mentioned by at least one R3 professional that legislators in the person's state had blocked the requirement of an email address for a license purchase on privacy grounds.

*We're using more and more email marketing and folks like RBFF have toolkits that are kind of plug-and-play for states to use, and we're all greatly appreciative of those tools. However, we still have [email addresses for] probably less than 20% of our overall license buyers. We are doing effective email marketing to the proportion [for whom] we have emails, but we're trying multiple different mechanisms to try to gain emails and associate those with customer IDs. —R3 professional*

*We also utilize GOV delivery to direct email. The majority of our fishing license buyers, that's proven to be an extremely effective way to have direct communication with them. Having said that, I wish our license database system was a little bit more [advanced to the point] where we could use it in such a way that we could garner more demographics and understand the license buyer in general a little bit more. —R3 professional*

*We have kind of a quasi-marketing position. A couple years ago they tried to do some targeted email campaigns with our old license sales system. But our new licensing system doesn't have that capability. But hopefully we do start doing more of a marketing approach, and a targeted approach on not only reminder messages and reactivation messages, but also on who we're getting for our programs and how we are going about making programs based off of customer needs. —R3 professional*

- **While social media websites and apps (especially Facebook and Instagram) are acknowledged by agency professionals as important ways for agencies to stay in touch with anglers and the wider public, the focus group discussions suggest that some agencies avoid using social media to a certain extent for fear of losing control of the conversation—this was said to occur when comment sections devolve into complaints or debates about license fees, regulations, or other agency policies.**

A few people mentioned that agencies are not able to maintain a “casual” social media presence—given customer interest (and direct inquiries, comments, and suggestions), agencies must be prepared to devote substantial time and effort to social media upkeep, particularly on Facebook. Additionally, according to some R3 professionals, some agencies may be reluctant to maintain an active presence on social media because of extremely critical commenters who post persistent negative replies no matter the subject matter of the post. Despite these observations, most R3 professionals suggested that they (and their agencies) value social media as a cost-effective and efficient way of communicating with the public.

*We like it [using social media]. It's been an important part of any promotional effort that we're doing, in large part because you can be so effective and micro-target people. We've built some landing pages so that we're better able to track those metrics. It is a briar-patch, in that we've learned that we couldn't just dabble. It's to the point now where we have one person assigned for every work day, to be the monitor of the account, and they provide*

responses to questions and comments. And when necessary, they'll also hide posts, do some of the management, blocking users, stuff like that. —R3 professional

I would say our social media presence is really key to all of our outreach and marketing efforts. We have a very large, active following on Facebook, and we have three different people who work on monitoring or checking in, posting. It's very critical for us, and we just started to really dip our toe into the digital media marketing through Facebook. So, I think that's really our main crux. We have Twitter. We don't really use it. I'd be real interested to compare if other people have found anything besides Facebook that is really effective. —R3 professional

We have a lot of staff that have such a negative and dark opinion of social media just because a lot of the time what they see on social media is just your keyword commanders. People who are just so critical of everything. We can put out a post saying we saved a whole den of black bear cubs, and they're going to berate us because our licenses cost too much money. Just irrelevant comments. A lot of times, some of our staff get very beaten down by reading and fielding these comments, so we kind of have this internal struggle with social media. I think it can be a very useful tool especially because it's one of our main tools of communications because we don't have a formal email marketing system right now. —R3 professional

- **Persistent challenges affecting angler R3 in some agencies include inflexible procurement and contracting policies and difficulties with (or lack of) information technology staff. Specifically, agencies are sometimes prevented from purchasing needed products, programs, or systems because they are locked into existing contracts with vendors. In other cases, agency IT staff are nonresponsive or slow to address data requests from angler R3 coordinators (this can sometimes affect the ability of coordinators to obtain data necessary for the development of plans or programs).**

In addition to Customer Relationship Management software, tools described by a number of R3 professionals as helpful in maintaining or analyzing communication with customers included the GovDelivery Email Subscription Management System, iContact, Constant Contact, and Google Analytics. In many cases, participants had direct experience with these tools.

For the marketing campaign awareness, we used reach impressions and video views, interest that's clicked, website behavior, and video completion rates for trial. This is where we sent people from a campaign to a fishing festival. For that we measured event attendance, event registration, and other Google Analytics techniques. So, our marketing campaigns have very strong evaluations and are constantly improving that process. The areas where we are needing to drastically improve are our old fashion fishing festivals and on-the-ground programs. We don't have event registration and we have no real way to follow participation straight through. So that's always been a big hold up for us. —R3 professional

We just revamped our mobile app. There were some hiccups with it, but it seems to be doing really, really good now. Something that just got unveiled literally within the last couple weeks in our agency is we made our actual regulations mobile-friendly. Our IT department created a way to make our internal regulations basically like click and search. So, you just search within the software or whatever they created internally through our website and you

*can get access to our mobile-friendly regulations. Make those a little more transparent and available to our public. —R3 professional*

*I've been waiting to get something as basic as a SharePoint access drive so I can share documents with another group. I was number 38 on the waiting list and I'm now like number 6—and I am seven months in. At this point, we've figured out other ways, so what's the point? —R3 professional*

*We're working in state government, and to get the simplest thing done is next to impossible. And I would say that our agency leadership supports the R3 efforts, angling and hunting both sides, but they're also faced with rising health insurance cost per staff, minimum wage went up, discrimination suits, and [other] really high level leadership issues that they're dealing with. —R3 professional*

*Almost three years ago we tried to do a phone app for a fishing license and where to fish and things like that, and we couldn't get it through. We couldn't get it through procurement. —R3 professional*

## Partnerships

- **RBFF is widely commended for offering a number of tools and resources that R3 professionals find helpful. Many R3 professionals value RBFF's marketing workshop, its distribution of best practices and lessons learned, and its toolbox of images for marketing campaigns.**

One minor criticism of RBFF's marketing images related to a desire for more region-specific images (it was suggested that few of the stock images available through RBFF are set in the western United States). Apart from this, it should be noted that a number of R3 professionals commended RBFF for being easy to work with and for taking time to develop positive and productive relationships with angler R3 professionals across the country.

*We've looked through RBFF's angler plan and have gone to their marketing workshops, and we've used a lot of their goals, tools, and objectives to move into our R3 plan statewide. —R3 professional*

*The photos [from RBFF] can be great but most of them don't depict western landscapes, so that can be problematic for us out west. A lot of them always have a boat in the background and when you're trying to recruit new anglers sometimes fishing from a boat isn't the image that you need. I would like to see a little bit more support from RBFF into more usable photos that we can use for western audiences who are true beginners. —R3 professional*

*Something else to give RBFF credit for: they've gone in and gotten to know the state people well. We're kind of like partners with them. They have almost a personal relationship with your state and what your state is doing. They've really done a good job of trying to figure out what your state is doing. —R3 professional*

*I know [two people in our agency] have reached out to RBFF for some assistance on starting the process to draft an R3 working plan, because a lot of it right now is just the understanding of what has been done, looking to other states, communicating with our constituents and our counterparts in other states, and figuring out what they've done. The*

*ball is definitely moving. We just don't have a formal document created yet, but I know we have staff that have worked at trying to get that going.*

—R3 professional

- **RBFF's grant program is highly valued, although many R3 professionals would like the grant cycle to be extended—the current timeline was often described as too compressed (some observed that the timeline for project deliverables is too rigid).**

Participants in several groups noted how much they appreciated RBFF grant opportunities. Some participants, however, said that the RBFF grant program is too rigid in its timeline for deliverable due dates and the distribution of funds.

*One thing that they [RBFF] could do better: I've heard from our marketing team that on the state R3 grants, the timeline for the RFP, and then when the money is disseminated, and then the end where the project has to be fulfilled and reported, is very contracted. And the timeline when the RFP comes out—I think it has to do with the fiscal year that RBFF operates under when they start April 1st with a new fiscal year—that's challenging for states.*

—R3 professional

*I've taken advantage of RBFF's grant program, which is awesome. It's great to get that but the timeframes are super, super aggressive, which makes it difficult to plan, implement, and deliver a project. It's actually a little bit less than one year. I think you get the money in May and they want the project done and the report out in September. So, super aggressive timelines.* —R3 professional

*We've had a good relationship with RBFF. It's helped a lot of ways. Their R3 planning recommendation document was really helpful to me as I was creating our R3 plan here. Their grant opportunities, both the R3 grants and the Hispanic grant, are great opportunities for people to try new ideas because it gives them a source of funding.* —R3 professional

- **The RBFF annual marketing workshop is a highly praised networking and learning opportunity for angler R3 professionals.**

While many R3 professionals in the focus groups spoke positively about their experiences attending the RBFF marketing workshop, a few expressed frustration at not being able to implement the techniques and strategies learned at the workshop in their own agencies (this was typically due to bureaucratic reasons).

*The annual marketing workshop that they provide for the states is great. I think that's been very, very well received and very popular.* —R3 professional

*The events and workshops hit so many people, creating kind of a toolkit for our partners with suggested curriculum, how to market, what the department can do as far as registrations and survey work, and how this works with the fish and game clubs, because they need a lot of handholding.* —R3 professional

*I went to my second RBFF conference workshop, which was fantastic. And I bring all these ideas and I come back [to my agency] and I'm like, "Well, we can't do that, we can't do that, and we can't do that." And it's so frustrating.* —R3 professional

- **Given agency budget constraints in many states, there is a desire among some R3 coordinators for agencies to explore or leverage partnerships with NGOs and the fishing industry—such partnerships could be especially useful by providing material for R3 programs.**

Some R3 professionals described successful partnerships between their agencies and tourism or travel bureaus; others expressed interest in partnerships between their agencies and commercial retailers. A number of participants felt that partnerships through which prospective anglers could receive discounts on fishing equipment would encourage participation. Public and private partnerships were also thought to be a good way to leverage budgets for advertising fishing opportunities. Finally, at least one participant mentioned a productive partnership in the form of a fishing program delivered through a public school system.

*We've done some work with local tourism and travel bureaus which have been very positive, very helpful. Evaluating those in terms of return on investment is a little challenging, but definitely good for building partnerships and extending the reach of all the partners involved.*  
—R3 professional

*Our overall goal is to, first of all, get people working together and to assess what we're doing and how effective it is: having consistency between efforts in terms of how we're defining things, how we're approaching things, how we're cross-promoting things, how we're evaluating what we're looking for. And then, trying to figure out what can we do with partners. How do you motivate partners and what's their vision? What's their role? You need to look for the intersection points because they're not necessarily congruent all over the place.* —R3 professional

*From a marketing approach within the agency, tourism has all the money to market us, but they're not; they're [only] semi-supportive of the agency. So overall, I [try to] get others to market us for free, like our tourism agency, or within our state parks, or the various outlets that we have to communicate in where we can put little marketing messages. Because we don't have a very large budget, I look at what other resources I can use, and that develops some great partnerships.* —R3 professional

*We actually hold a partnership conference realizing that we couldn't teach everybody everything. That we have a partnership conference of those NGOs to also teach outdoor recreation and promote conservation. We get all those partners together once a year with a sponsored conference and we get a lot of partner support for that conference. Just having that yearly gathering of the conservation groups is a great networking avenue. You hear about new programs going on.* —R3 professional

*I'm working with 10 different stores. We always try to include our retailers. We want to make them feel important, but at the end of the day, they are driven by sales and not programs.* —R3 professional

## RECOMMENDATIONS BASED ON PROFESSIONAL FOCUS GROUPS

- **To the extent possible, RBFF should assist agencies as necessary to develop a shared angler R3 vision from the top down and across divisions.**

It would appear that, in some agencies, the relative lack of focus on angler R3 is the result of the absence of a shared vision or formal plan regarding angler R3. RBFF should assist states to the extent possible to ensure that R3 staff have the full support of agency leadership, especially by formalizing R3 goals through the creation of a comprehensive R3 plan.

- **To the extent possible, RBFF should communicate to agencies in general and agency leadership in particular the importance of separating angler R3 from hunter R3.**

The research suggests that some agencies still conceptualize of hunter R3 and angler R3 as being part of the same overall initiative—while they obviously share the same broad goals of recruitment, retention, and reactivation, these programs will be most successful if they are kept separate and distinct from one another (this extends to the hiring of dedicated *angler* R3 coordinators, as opposed to *general* R3 coordinators). Additionally, a number of R3 professionals in the focus groups suggested that, because hunting has experienced a more precipitous decline in participation than has fishing, many agencies perceive hunter R3 programs to be a higher priority than angler R3 programs. With this in mind, RBFF should encourage states to view angler R3 with the same importance and urgency as hunter R3.

- **To the extent possible, agencies should hire dedicated R3 coordinators—it appears that in some agencies, R3 programming and implementation are delegated to staff who are busy with other non-R3 duties.**

In the focus groups, it was commonly suggested that the most successful angler R3 programs are the ones supported by dedicated R3 coordinators and staff who specialize in fishing. R3 programs that are managed by staff who juggle competing duties and responsibilities will be less likely to succeed.

- **RBFF should encourage agencies to evaluate and, if necessary, discontinue programs that are not working.**

While some agency staff may be reluctant to discontinue programs that required substantial time and effort to develop, programs whose effectiveness is questionable or cannot be reliably documented should be eliminated to make room for new, more promising programs based on a solid foundation of research. Related to this is that the consistency of program evaluations appears to vary widely by state: some agencies simply make program evaluations a higher priority than do other agencies; in other cases, evaluations are hindered by inadequate access to the necessary resources (staff, survey tools, funding, contact information for license holders or program participants, etc.). RBFF should continue to encourage states to prioritize program evaluations, especially by providing R3 staff with the resources needed to conduct these evaluations.

- **RBFF should encourage agencies to review relevant data before developing new programs.**

In doing so, RBFF should remind agencies of the importance of developing programs based on data and empirical evidence, best practices, and lessons learned—agencies must avoid simply changing the names of existing programs to “rebrand” them as R3 programs.

➤ **RBFF should consider taking a more active role in R3 program evaluations.**

There is likely a role for RBFF to expand its assistance to agencies in terms of angler R3 program evaluations—similar to how the Wildlife Management Institute conducts independent assessments and evaluations of agency programs and work areas, RBFF may be able to more actively assist agencies to inventory, evaluate, and improve their angler R3 programs. Such assistance could make use of the ORAM or other metrics, benchmark tools, and program criteria.

➤ **RBFF should explore the feasibility of creating an independent team to evaluate angler R3 programs in terms of their effectiveness and return on investment.**

The findings of such evaluations should not be binding but should function as beneficial guidance—agencies would be well served by an independent review that could reliably determine which programs should be discontinued because of their lack of documented effectiveness. Such a service could help provide the “push” needed to determine the future of programs whose outcomes and impacts are questionable.

➤ **RBFF should continue to help states promote fishing to females, Latinos, youth, and urban residents—many states acknowledge these groups as being among the most important demographic segments for outreach and specialized angler R3 programs.**

RBFF could be especially impactful in helping states select the appropriate imagery and messages with which to target these groups, as well as potential industry and NGO partnerships to support marketing and R3 efforts. As part of this, RBFF should also continue to develop specialized campaigns and initiatives that address the changing demographics of the country (the Vamos A Pescar™ initiative is an important model).

➤ **RBFF should help states make it as easy as possible for people to go fishing—recognize the importance of convenience to Millennials and Generation Z.**

To recruit new anglers and retain casual anglers, agencies should strive to provide (and RBFF should help to encourage) the most convenient possible path to try fishing. Agencies should make the experience of buying a license and looking for a place to fish as straightforward as possible to avoid frustrating those who are new to fishing or new to a state. Making it as easy as possible to find the appropriate license, gear, and local fishing information will encourage people to try fishing over other activities.

➤ **RBFF should help agencies move to a model in which everyone who goes fishing must possess a license, no matter the age.**

While licenses could remain free for youth participants, the simple act of obtaining and possessing the license would help reinforce the concept of always having a license to fish. Consider that around a third of Latinos and blacks/African-Americans who fished in the past 5 years did not purchase a license (whether out of ignorance, disregard for the law, or an exemption of some kind)—this recommendation could help bring down these problematic percentages.

➤ **RBFF should continue to guide agencies on how to better capture the email addresses of license purchasers and R3 program participants—valid email addresses are essential for tracking and long-term follow-up, and not every state is capturing emails to the fullest extent possible.**

RBFF may consider encouraging states to offer incentives to program participants and license purchasers in exchange for valid email addresses. Many people are inclined to

provide fake or deliberately misspelled email addresses when prompted to volunteer such information on forms; but a guarantee of coupons, discounts, or fishing reports offered exclusively through email could help states compile larger and more complete databases of email addresses.

- **As convenience is a central consideration of many prospective anglers, agencies should encourage online and mobile fishing license purchases to the extent possible—this includes electronic licenses accessible via smartphone.**

In addition to the enhanced ability for agencies to capture email addresses online and through apps, online/app license sales were thought to be more convenient and more efficacious in encouraging fishing participation in general (especially by allowing quick or impromptu license purchases). It is possible that RBFF may be able to provide advice or assistance to agencies whose online licensing systems require improvements or refinements.

- **To the extent possible, RBFF should encourage agencies to fully engage with current and prospective anglers via social media.**

It is essential for agencies to control the social media conversation on official agency channels by maintaining a consistent presence to answer questions, raise awareness of opportunities and resources, and correct misperceptions. Agencies should not shy away from using social media for fear that the negatives may outweigh the positives.

- **RBFF should encourage states to use social media to communicate with and market to under-represented audiences.**

Beyond prepared marketing materials such as print advertisements and television spots (which take substantial planning and development in terms of layout and content), social media platforms such as Facebook and Instagram are cost-effective ways for agencies to depict diversity in anglers. Using social media to reinforce the presence of women, youth, and minority groups in fishing will help to curb the stereotype of fishing as an activity for older, white, rural males.

- **To the extent possible, RBFF should help agencies identify new opportunities for NGO/industry partnerships, and nurture existing partnerships to leverage resources for R3 programs and initiatives.**

With limited agency budgets for marketing and outreach initiatives, partnerships with tourism and travel bureaus may help promote state fishing opportunities, while partnerships with industry groups or commercial retailers could facilitate enticing discounts on equipment or group events. While there were some mild concerns among a few focus group participants about the profit-driven nature of retailers, the general consensus throughout the discussions was that partnerships are highly beneficial to angler R3 efforts.

- **RBFF should consider offering a more regionally and geographically diverse selection of stock photos for agency marketing campaigns—the professional focus group discussions suggest that, while R3 professionals value these photos, images are most effective when they are relevant to the geographic surroundings of the recipient.**

Some R3 professionals felt that marketing photos that are not specific to the general landscape of the recipient would fail to resonate and achieve the intended effect. RBFF should strive to provide an array of regionally diverse marketing photos for use by the states.

➤ **RBFF should consider extending the timeline of its grant cycle for states.**

RBFF's grant program is highly valued; the only recurring criticism relates to the perceived compressed timeline of the grant cycle for project implementation, completion, and reporting. A longer timeline would allow states more flexibility in planning and executing projects.

➤ **RBFF should maintain its current general approach to working with the states.**

In the focus groups, RBFF was repeatedly praised for being easy to work with, for providing useful marketing templates and other resources, and for the ability of its staff to build productive working relationships with state R3 coordinators—many participants commended RBFF for taking the time to get to know agency personnel and for working to understand each state's unique R3 situation (according to one R3 professional, “[With RBFF], it's like someone gets you, like they're on your side”).

## 5. TARGET MARKETS

The following one-page summary sheets detail various characteristics and attitudes of the given groups. These summary sheets should be used in targeted marketing, as the sheets show salient facts to use in targeting and message creation.

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**ACTIVE ANGLERS**

Active anglers are those who fished in the past 5 years.

Gender	
Male	61%
Female	39%

Age	
Mean age	47
Percent 18-34	30%
Percent 35-54	39%
Percent 55 or older	31%

Ethnicity	
White	77%
Non-white	23%

Interest in Fishing in Next 5 Years	
Very interested	64%
Somewhat interested	22%
A little interested	7%
Not at all interested	7%

Top 3 Reasons for Fishing	
To be out in nature or outdoors	75%
To be with family	71%
To relax	69%

Top 3 Social Media Used	
Facebook	65%
Instagram	26%
YouTube	18%

Likelihood of Buying Fishing License Next 5 Years	
Very likely	74%
Somewhat likely	13%
A little likely	6%
Not at all likely	7%

Prefer to Buy Fishing License	
In store	58%
Online	33%
Don't know / no preference	8%

Learned Fishing Techniques Through Online Videos	
Yes	27%
No	70%

Residence	
Large city or urban area	17%
Suburban area	18%
Small city or town	29%
Rural area	33%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	26%
Some college or trade school, no degree	20%
Associate's or trade school degree	14%
Bachelor's degree	20%
Master's degree	10%
Professional or doctorate degree	4%

Top 3 Activities in Last 5 Years	
Recreational fishing	85%
Camping	69%
Hiking	65%

Top 3 Things That Took Away from Fishing	
Getting time off from work or family obligations	23%
Seeing litter	21%
Mosquitoes and other pests	21%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	45%
Ease of using the website	38%
Customer reviews	35%

Likelihood of Renewing License Through...	
Email with link to state website	34%
Phone text with link to state website	24%
App on phone	25%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	35%
Somewhat likely	18%
A little likely	6%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	29%
No	68%

**SPORADIC ANGLERS**

Sporadic anglers are those who fished in the past 10 years, but not the past 5 years.

Gender	
Male	40%
Female	59%

Age	
Mean age	49
Percent 18-34	35%
Percent 35-54	30%
Percent 55 or older	36%

Ethnicity	
White	96%
Non-white	4%

Interest in Fishing in Next 5 Years	
Very interested	13%
Somewhat interested	24%
A little interested	28%
Not at all interested	35%

Top 3 Things That Would Encourage Going Fishing	
To be with family	52%
To be out in nature or outdoors	42%
To disconnect from technology	40%

Top 3 Social Media Used	
Facebook	66%
Snapchat	19%
Instagram	14%

Likelihood of Buying Fishing License Next 5 Years	
Very likely	N/A
Somewhat likely	N/A
A little likely	N/A
Not at all likely	N/A

Prefer to Buy Fishing License	
In store	N/A
Online	N/A
Don't know / no preference	N/A

Learned Fishing Techniques Through Online Videos	
Yes	9%
No	89%

Residence	
Large city or urban area	25%
Suburban area	22%
Small city or town	25%
Rural area	23%

Education Level	
Not a high school graduate	3%
High school graduate or equivalent	14%
Some college or trade school, no degree	24%
Associate's or trade school degree	17%
Bachelor's degree	27%
Master's degree	4%
Professional or doctorate degree	7%

Top 3 Activities in Last 5 Years	
Bicycling	49%
Hiking	48%
Running or jogging	37%

Top 3 Reasons for Not Fishing in Past 5 Years	
Health problems	38%
Getting time off from work or family obligations	31%
Do not like handling fish	29%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Internet other than customer reviews	48%
Help from sales associates	48%
Recommendations from friends or family	40%

Likelihood of Renewing License Through	
Email with link to state website	N/A
Phone text with link to state website	N/A
App on phone	N/A
Auto renewal with credit card on file	N/A

Likelihood of Using Free All-in-One Fishing App	
Very likely	2%
Somewhat likely	12%
A little likely	14%
Not at all likely	72%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	16%
No	82%

## LAPSED ANGLERS

Lapsed anglers are those who fished at some time, but not within the past 10 years.

Gender	
Male	41%
Female	59%

Age	
Mean age	50
Percent 18-34	31%
Percent 35-54	26%
Percent 55 or older	43%

Ethnicity	
White	69%
Non-white	31%

Interest in Fishing in Next 5 Years	
Very interested	7%
Somewhat interested	15%
A little interested	22%
Not at all interested	55%

Top 3 Things That Would Encourage Going Fishing	
To be with family	44%
For the scenery	34%
To be out in nature or outdoors	33%

Top 3 Social Media Used	
Facebook	57%
Instagram	24%
YouTube	19%

Likelihood of Buying Fishing License Next 5 Years	
Very likely	N/A
Somewhat likely	N/A
A little likely	N/A
Not at all likely	N/A

Prefer to Buy Fishing License	
In store	N/A
Online	N/A
Don't know / no preference	N/A

Learned Fishing Techniques Through Online Videos	
Yes	2%
No	95%

Residence	
Large city or urban area	22%
Suburban area	21%
Small city or town	31%
Rural area	22%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	23%
Some college or trade school, no degree	15%
Associate's or trade school degree	11%
Bachelor's degree	28%
Master's degree	13%
Professional or doctorate degree	3%

Top 3 Activities in Last 5 Years	
Hiking	47%
Bicycling	47%
Running or jogging	40%

Top 3 Reasons for No Longer Fishing	
Loss of interest	40%
Water quality issues	23%
Did not like handling fish	17%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	50%
Ease of using the website	42%
Help from sales associates	36%

Likelihood of Renewing License Through	
Email with link to state website	N/A
Phone text with link to state website	N/A
App on phone	N/A
Auto renewal with credit card on file	N/A

Likelihood of Using Free All-in-One Fishing App	
Very likely	6%
Somewhat likely	12%
A little likely	11%
Not at all likely	71%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	9%
No	88%

**NON-ANGLERS**

Non-anglers are those who have never fished.

Gender	
Male	23%
Female	77%

Age	
Mean age	51
Percent 18-34	26%
Percent 35-54	32%
Percent 55 or older	42%

Ethnicity	
White	50%
Non-white	50%

Interest in Fishing in Next 5 Years	
Very interested	4%
Somewhat interested	17%
A little interested	11%
Not at all interested	67%

Top 3 Things That Would Encourage Outdoor Rec.	
To relax	46%
For the scenery	44%
To be with family	42%

Top 3 Social Media Used	
Facebook	50%
Instagram	24%
YouTube	19%

Likelihood of Using Free All-in-One Fishing App	
Very likely	4%
Somewhat likely	7%
A little likely	1%
Not at all likely	88%

Residence	
Large city or urban area	27%
Suburban area	24%
Small city or town	28%
Rural area	13%

Education Level	
Not a high school graduate	2%
High school graduate or equivalent	10%
Some college or trade school, no degree	14%
Associate's or trade school degree	12%
Bachelor's degree	36%
Master's degree	11%
Professional or doctorate degree	5%

Top 3 Activities in Last 5 Years	
Running or jogging	37%
Hiking	35%
Bicycling	35%

Top 3 Things That Took Away from Outdoor Rec.	
Mosquitoes and other pests	23%
Poor behavior of other people	21%
Health problems	20%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	45%
Help from sales associates	45%
Customer reviews	40%

Learned Fishing Techniques Through Online Videos	
Yes	6%
No	90%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	3%
No	94%

## WHITE RESIDENTS

Interest in Fishing in Next 5 Years	
Very interested	38%
Somewhat interested	18%
A little interested	15%
Not at all interested	29%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	80%
To relax	72%
To be with family	71%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	43%
For the scenery	36%
To be with friends	36%

Top 3 Things That Took Away from Fishing (among active anglers)	
Mosquitoes and other pests	24%
Getting time off work or family obligations	21%
Seeing litter	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	38%
Water quality issues	20%
Health problems	20%

Top 3 Social Media Used	
Facebook	66%
Instagram	26%
YouTube	20%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	65%
Somewhat likely	14%
A little likely	9%
Not at all likely	11%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	57%
Online	34%
Don't know / no preference	8%

Learned Fishing Techniques Through Online Videos	
Yes	14%
No	85%

Top 3 Activities in Last 5 Years	
Hiking	59%
Bicycling	53%
Camping	52%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	55%
To be out in nature or outdoors	44%
Being able to disconnect from technology	44%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	55%
To relax	52%
If there was a place close by	40%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	39%
Getting time off from work or family obligations	34%
Do not like handling fish	32%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Getting time off from work or family obligations	24%
Health problems	23%
Mosquitoes and other pests	22%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	43%
Ease of using the website	36%
Customer reviews	35%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	35%
Phone text with link to state website	19%
App on phone	28%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	20%
Somewhat likely	15%
A little likely	9%
Not at all likely	55%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	20%
No	79%

**AFRICAN-AMERICAN RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	35%
Somewhat interested	16%
A little interested	11%
Not at all interested	36%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	81%
To be with friends	69%
To relax	57%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	53%
For the scenery	37%
Rent all the fishing gear that you needed at the place	32%

Top 3 Things That Took Away from Fishing (among active anglers)	
Finding places that are not crowded	29%
Nobody to go with	29%
Seeing litter	27%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	67%
Mosquitoes and other pests	27%
Cost of travel or equipment	15%

Top 3 Social Media Used	
Facebook	62%
Instagram	44%
YouTube	34%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	55%
Somewhat likely	8%
A little likely	13%
Not at all likely	23%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	66%
Online	17%
Don't know / no preference	17%

Learned Fishing Techniques Through Online Videos	
Yes	27%
No	73%

Top 3 Activities in Last 5 Years	
Running or jogging	54%
Bicycling	47%
Recreational fishing	30%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with friends	66%
For the scenery	61%
To be out in nature or outdoors	54%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
Being able to disconnect from technology	46%
To be with family	45%
To relax	40%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Boat-related problems	79%
Poor behavior of other people	66%
Do not feel comfortable with other people who are fishing	39%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	33%
Not being confident in your skill level	23%
Getting access to places to do outdoor recreation	23%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	59%
Customer reviews	59%
Internet other than customer reviews	46%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	37%
Phone text with link to state website	16%
App on phone	26%
Auto renewal with credit card on file	16%

Likelihood of Using Free All-in-One Fishing App	
Very likely	30%
Somewhat likely	10%
A little likely	11%
Not at all likely	48%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	13%
No	86%

## ASIAN-AMERICAN RESIDENTS

Interest in Fishing in Next 5 Years	
Very interested	18%
Somewhat interested	49%
A little interested	11%
Not at all interested	22%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	90%
To relax	81%
Part of a general outdoor outing	70%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	67%
To relax	64%
If it were offered as part of your next vacation	53%

Top 3 Things That Took Away from Fishing (among active anglers)	
Fish advisories	57%
Mosquitoes and other pests	45%
Nobody to go with	42%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Poor behavior of other people	62%
Loss of interest	60%
Mosquitoes and other pests	53%

Top 3 Social Media Used	
Facebook	60%
YouTube	45%
Instagram	40%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	35%
Somewhat likely	26%
A little likely	14%
Not at all likely	18%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	26%
Online	71%
Don't know / no preference	3%

Learned Fishing Techniques Through Online Videos	
Yes	25%
No	69%

Top 3 Activities in Last 5 Years	
Running or jogging	69%
Hiking	66%
Bicycling	55%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	27%
To teach someone else to fish	19%
To be with family	15%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	81%
To relax	67%
To be with friends	63%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Finding places that were not crowded	76%
Security of your parked vehicle	27%
Parking to get to the fishing spots	14%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	42%
Nobody to go with	35%
Poor behavior of other people	34%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	73%
Ease of using the website	54%
Internet other than customer reviews	45%

Likelihood of Renewing License Through... (among active, sporadic, and lapsed anglers)	
Email with link to state website	29%
Phone text with link to state website	9%
App on phone	17%
Auto renewal with credit card on file	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	50%
Somewhat likely	18%
A little likely	10%
Not at all likely	21%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	19%
No	81%

**LATINO RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	41%
Somewhat interested	17%
A little interested	14%
Not at all interested	27%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	79%
To be with family	75%
To be with friends	74%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	56%
Being able to disconnect from technology	33%
To be out in nature or outdoors	27%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	32%
Fish advisories	29%
Water quality issues	24%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Water quality issues	43%
Loss of interest	37%
Did not like handling fish	29%

Top 3 Social Media Used	
Facebook	59%
Instagram	46%
YouTube	35%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	65%
Somewhat likely	10%
A little likely	11%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	74%
Online	21%
Don't know / no preference	5%

Learned Fishing Techniques Through Online Videos	
Yes	19%
No	81%

Top 3 Activities in Last 5 Years	
Running or jogging	56%
Bicycling	54%
Hiking	50%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
Being able to disconnect from technology	96%
To be with family	94%
If it were part of your vacation	93%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be with family	67%
For the solitude	59%
For the scenery	57%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	96%
Seeing litter	90%
Security of your parked vehicle	89%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	39%
Getting time off from work or family obligations	35%
Health problems	27%

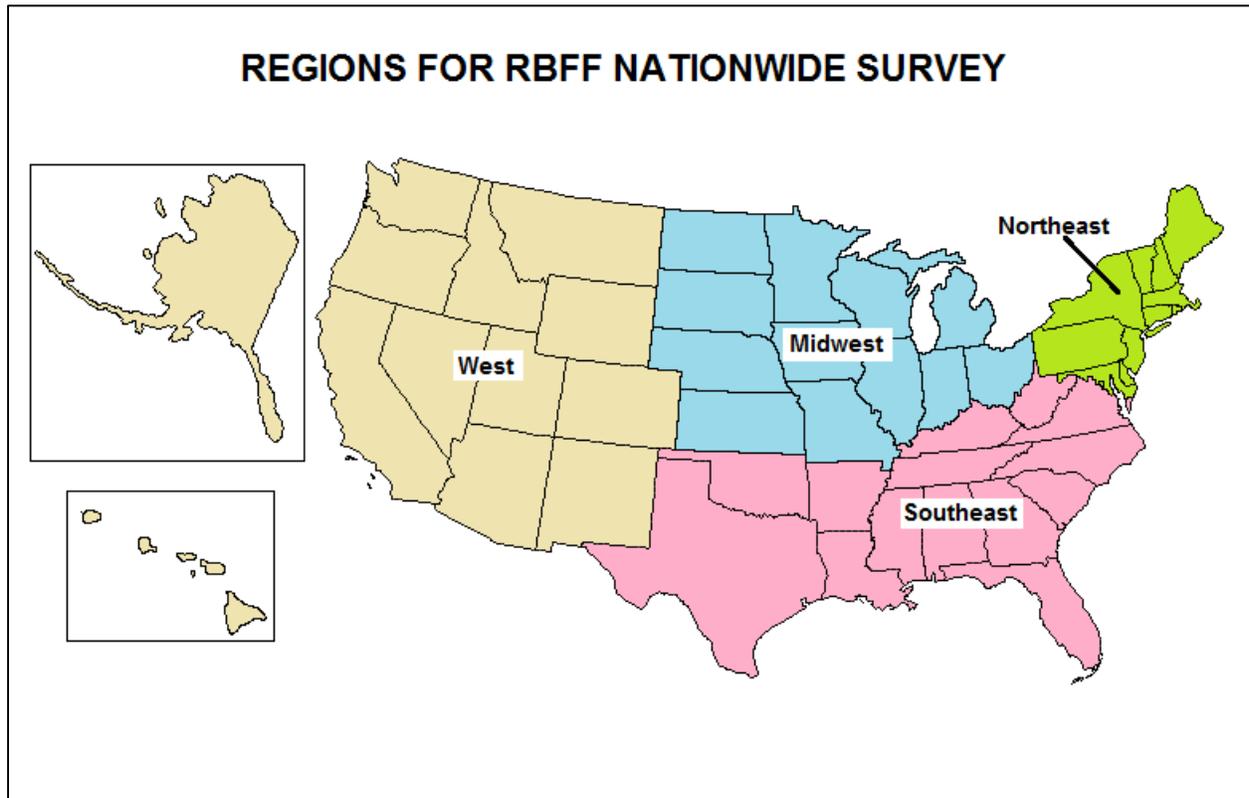
Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	58%
Ease of using the website	43%
Internet other than customer reviews	33%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	37%
Phone text with link to state website	41%
App on phone	50%
Auto renewal with credit card on file	8%

Likelihood of Using Free All-in-One Fishing App	
Very likely	28%
Somewhat likely	25%
A little likely	16%
Not at all likely	31%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	27%
No	72%

The following four target market summary pages are based on RBFF regions. These are shown in Figure 5.1.



**Figure 5.1. RBFF Regions Used in the Study**

**NORTHEAST RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	29%
Somewhat interested	20%
A little interested	12%
Not at all interested	39%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	77%
To be with family	72%
To relax	58%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	39%
To be with family	38%
To be with friends	35%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	21%
Lack of fish or not catching fish	20%
Seeing litter	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	44%
Fish advisories	19%
Did not like handling fish	17%

Top 3 Social Media Used	
Facebook	62%
Instagram	37%
YouTube	30%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	43%
Somewhat likely	19%
A little likely	15%
Not at all likely	21%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	49%
Online	43%
Don't know / no preference	8%

Learned Fishing Techniques Through Online Videos	
Yes	11%
No	85%

Top 3 Activities in Last 5 Years	
Bicycling	50%
Hiking	49%
Running or jogging	45%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
If it were part of your vacation	41%
If somebody asked you to go	38%
To be out in nature or outdoors	36%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	77%
To be with friends	53%
Being able to disconnect from technology	44%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	31%
Getting access to the water	28%
Nobody to go with	24%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Not being confident in your skill level	32%
Getting access to places to do outdoor recreation	29%
Poor behavior of other people	25%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Customer reviews	45%
Internet other than customer reviews	40%
Ease of using the website	38%

Likelihood of Renewing License Through... (among active, sporadic, and lapsed anglers)	
Email with link to state website	44%
Phone text with link to state website	19%
App on phone	25%
Auto renewal with credit card on file	12%

Likelihood of Using Free All-in-One Fishing App	
Very likely	15%
Somewhat likely	10%
A little likely	6%
Not at all likely	67%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	20%
No	76%

## SOUTHEAST RESIDENTS

Interest in Fishing in Next 5 Years	
Very interested	44%
Somewhat interested	15%
A little interested	15%
Not at all interested	26%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	76%
To relax	73%
To be out in nature or outdoors	72%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
For the scenery	57%
To be with family	42%
To be with friends	39%

Top 3 Things That Took Away from Fishing (among active anglers)	
Water quality issues	33%
Mosquitoes and other pests	29%
Fish advisories	26%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Water quality issues	53%
Loss of interest	43%
Getting time off work or family obligations	23%

Top 3 Social Media Used	
Facebook	65%
Instagram	25%
Twitter	20%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	72%
Somewhat likely	12%
A little likely	5%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	65%
Online	26%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	17%
No	81%

Top 3 Activities in Last 5 Years	
Recreational fishing	46%
Bicycling	45%
Hiking	43%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	70%
Being able to disconnect from technology	47%
For the solitude	43%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	27%
To be with friends	24%
Being able to disconnect from technology	24%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	51%
Security of your parked vehicle	50%
Do not like handling fish	43%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Health problems	26%
Mosquitoes and other pests	23%
Poor behavior of other people	19%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	40%
Customer reviews	37%
Ease of using the website	36%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	38%
Phone text with link to state website	23%
App on phone	33%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	22%
Somewhat likely	18%
A little likely	9%
Not at all likely	50%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	20%
No	78%

**MIDWEST RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	34%
Somewhat interested	20%
A little interested	14%
Not at all interested	31%

Top 3 Reasons for Fishing (among active anglers)	
To relax	73%
To be out in nature or outdoors	72%
To be with family	66%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	54%
To be with friends	36%
For the scenery	35%

Top 3 Things That Took Away from Fishing (among active anglers)	
Finding places that are not crowded	25%
Getting time off work or family obligations	22%
Mosquitoes and other pests	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	38%
Water quality issues	22%
Mosquitoes and other pests	20%

Top 3 Social Media Used	
Facebook	65%
Instagram	26%
YouTube	24%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	59%
Somewhat likely	14%
A little likely	12%
Not at all likely	14%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	57%
Online	32%
Don't know / no preference	11%

Learned Fishing Techniques Through Online Videos	
Yes	15%
No	82%

Top 3 Activities in Last 5 Years	
Hiking	53%
Bicycling	52%
Camping	47%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	68%
If somebody asked you to go	56%
If it was part of a general outdoor outing	45%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	51%
To be with friends	45%
For the scenery	45%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	31%
Water quality issues	30%
Getting time off from work or family obligations	28%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	30%
Health problems	26%
Poor behavior of other people	26%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	47%
Ease of using the website	38%
Customer reviews	35%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	30%
Phone text with link to state website	15%
App on phone	29%
Auto renewal with credit card on file	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	25%
Somewhat likely	14%
A little likely	13%
Not at all likely	48%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	20%
No	77%

## WEST RESIDENTS

Interest in Fishing in Next 5 Years	
Very interested	33%
Somewhat interested	19%
A little interested	13%
Not at all interested	34%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	83%
To be with family	67%
To relax	64%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	45%
To be out in nature or outdoors	34%
For the scenery	30%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	32%
Seeing litter	27%
Finding places that are not crowded	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	36%
Did not like handling fish	22%
Not being confident in your skill level	19%

Top 3 Social Media Used	
Facebook	56%
Instagram	28%
YouTube	20%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	74%
Somewhat likely	11%
A little likely	6%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	62%
Online	31%
Don't know / no preference	7%

Learned Fishing Techniques Through Online Videos	
Yes	18%
No	77%

Top 3 Activities in Last 5 Years	
Hiking	71%
Camping	63%
Bicycling	62%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	43%
If somebody asked you to go	40%
If it was part of a general outdoor outing	38%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	82%
To be with family	59%
To be out in nature or outdoors	56%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	44%
Nobody to go with	34%
Do not like handling fish	28%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	34%
Getting time off from work or family obligations	30%
Mosquitoes and other pests	20%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	54%
Ease of using the website	40%
Internet other than customer reviews	33%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	25%
Phone text with link to state website	25%
App on phone	17%
Auto renewal with credit card on file	12%

Likelihood of Using Free All-in-One Fishing App	
Very likely	24%
Somewhat likely	16%
A little likely	11%
Not at all likely	47%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	18%
No	78%

**MALES**

Interest in Fishing in Next 5 Years	
Very interested	48%
Somewhat interested	18%
A little interested	11%
Not at all interested	23%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	76%
To relax	70%
To be with family	68%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	50%
For the scenery	36%
To be with friends	34%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	31%
Seeing litter	23%
Water quality issues	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	40%
Water quality issues	26%
Getting time off work or family obligations	21%

Top 3 Social Media Used	
Facebook	52%
Instagram	21%
YouTube	18%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	73%
Somewhat likely	11%
A little likely	6%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	61%
Online	30%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	24%
No	73%

Top 3 Activities in Last 5 Years	
Hiking	55%
Bicycling	54%
Recreational fishing	51%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	64%
To be with friends	46%
To be with family	46%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	57%
To relax	55%
To be out in nature or outdoors	52%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	28%
Nobody to go with	24%
Poor behavior of other people	18%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	33%
Nobody to go with	30%
Health issues	24%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	42%
Ease of using the website	35%
Customer reviews	34%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	27%
Phone text with link to state website	21%
App on phone	26%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	25%
Somewhat likely	19%
A little likely	7%
Not at all likely	47%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	31%
No	66%

## FEMALES

Interest in Fishing in Next 5 Years	
Very interested	25%
Somewhat interested	18%
A little interested	17%
Not at all interested	39%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	75%
To be out in nature or outdoors	75%
To relax	67%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	39%
To be out in nature or outdoors	37%
For the scenery	33%

Top 3 Things That Took Away from Fishing (among active anglers)	
Mosquitoes and other pests	27%
Fish advisories	23%
Poor behavior of other people	19%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	41%
Fish advisories	22%
Mosquitoes and other pests	22%

Top 3 Social Media Used	
Facebook	71%
Instagram	34%
YouTube	27%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	52%
Somewhat likely	16%
A little likely	12%
Not at all likely	17%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	59%
Online	33%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	8%
No	89%

Top 3 Activities in Last 5 Years	
Hiking	52%
Bicycling	49%
Camping	42%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	59%
Being able to disconnect from technology	47%
If it were part of your vacation	42%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	43%
To be with family	41%
For the scenery	40%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	53%
Do not like handling fish	47%
Seeing litter	39%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	24%
Poor behavior of other people	22%
Health problems	19%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	48%
Help from sales associates	42%
Ease of using the website	40%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	45%
Phone text with link to state website	21%
App on phone	29%
Auto renewal with credit card on file	11%

Likelihood of Using Free All-in-One Fishing App	
Very likely	18%
Somewhat likely	11%
A little likely	12%
Not at all likely	58%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	9%
No	88%

**18- TO 34-YEAR-OLDS**

Interest in Fishing in Next 5 Years	
Very interested	37%
Somewhat interested	27%
A little interested	17%
Not at all interested	19%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	72%
To relax	70%
To be with friends	68%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
For the scenery	52%
To be with family	49%
To be with friends	48%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	41%
Seeing litter	29%
Mosquitoes and other pests	29%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	46%
Water quality issues	38%
Cost of travel or equipment	26%

Top 3 Social Media Used	
Facebook	75%
Instagram	63%
YouTube	45%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	57%
Somewhat likely	20%
A little likely	12%
Not at all likely	10%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	52%
Online	42%
Don't know / no preference	6%

Learned Fishing Techniques Through Online Videos	
Yes	26%
No	72%

Top 3 Activities in Last 5 Years	
Running or jogging	72%
Hiking	62%
Bicycling	58%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	67%
To be with friends	64%
For the scenery	62%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	72%
Being able to disconnect from technology	55%
To be with family	55%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Seeing litter	46%
Getting time off from work or family obligations	34%
Mosquitoes and other pests	26%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Getting time off from work or family obligations	40%
Finding places that are not crowded	38%
Nobody to go with	33%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	63%
Customer reviews	49%
Ease of using the website	42%

Likelihood of Renewing License Through... (among active, sporadic, and lapsed anglers)	
Email with link to state website	33%
Phone text with link to state website	26%
App on phone	30%
Auto renewal with credit card on file	16%

Likelihood of Using Free All-in-One Fishing App	
Very likely	35%
Somewhat likely	25%
A little likely	10%
Not at all likely	29%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	26%
No	74%

**35- TO 54-YEAR-OLDS**

Interest in Fishing in Next 5 Years	
Very interested	44%
Somewhat interested	14%
A little interested	15%
Not at all interested	27%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	81%
To be out in nature or outdoors	77%
To relax	71%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	51%
To be out in nature or outdoors	37%
Being able to disconnect from technology	28%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	30%
Fish advisories	22%
Scheduling time with fishing companions	22%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	46%
Did not like handling fish	33%
Not being confident in your skill level	21%

Top 3 Social Media Used	
Facebook	72%
Instagram	25%
Twitter	19%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	73%
Somewhat likely	10%
A little likely	7%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	63%
Online	31%
Don't know / no preference	7%

Learned Fishing Techniques Through Online Videos	
Yes	17%
No	83%

Top 3 Activities in Last 5 Years	
Bicycling	63%
Hiking	59%
Camping	54%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	63%
Being able to disconnect from technology	54%
If it were part of your vacation	42%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	69%
To be out in nature or outdoors	61%
For the scenery	60%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Do not like handling fish	55%
Security of your parked vehicle	52%
Getting time off from work or family obligations	42%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	32%
Getting time off from work or family obligations	22%
Poor behavior of other people	18%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	44%
Recommendations from friends or family	42%
Internet other than customer reviews	34%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	42%
Phone text with link to state website	22%
App on phone	38%
Auto renewal with credit card on file	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	28%
Somewhat likely	16%
A little likely	14%
Not at all likely	40%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	19%
No	81%

**55-YEAR-OLDS AND OLDER**

Interest in Fishing in Next 5 Years	
Very interested	31%
Somewhat interested	15%
A little interested	9%
Not at all interested	44%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	77%
To be with family	67%
To relax	65%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	40%
For the scenery	39%
To be out in nature or outdoors	36%

Top 3 Things That Took Away from Fishing (among active anglers)	
Seeing litter	30%
Finding places that are not crowded	25%
Water quality issues	23%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	36%
Health problems	23%
Mosquitoes and other pests	22%

Top 3 Social Media Used	
Facebook	49%
YouTube	12%
Instagram	9%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	61%
Somewhat likely	12%
A little likely	6%
Not at all likely	18%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	63%
Online	26%
Don't know / no preference	11%

Learned Fishing Techniques Through Online Videos	
Yes	8%
No	91%

Top 3 Activities in Last 5 Years	
Hiking	44%
Bicycling	37%
Camping	36%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	58%
If somebody asked you to go	44%
If it was part of a general outdoor outing	36%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be with family	35%
To relax	34%
To be with friends	29%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	51%
Nobody to go with	39%
Mosquitoes and other pests	26%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	34%
Health problems	31%
Poor behavior of other people	24%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	32%
Help from sales associates	31%
Customer reviews	29%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	25%
Phone text with link to state website	12%
App on phone	11%
Auto renewal with credit card on file	8%

Likelihood of Using Free All-in-One Fishing App	
Very likely	8%
Somewhat likely	7%
A little likely	6%
Not at all likely	78%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	18%
No	81%

## LARGE CITY / URBAN AREA RESIDENTS

Interest in Fishing in Next 5 Years	
Very interested	31%
Somewhat interested	21%
A little interested	15%
Not at all interested	32%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	76%
To relax	71%
To be with family	58%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	37%
To be with family	34%
To get away from family	23%

Top 3 Things That Took Away from Fishing (among active anglers)	
Water quality issues	32%
Fish advisories	27%
Finding places that are not crowded	25%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	56%
Water quality issues	33%
Poor behavior of other people	31%

Top 3 Social Media Used	
Facebook	66%
Instagram	32%
YouTube	27%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	62%
Somewhat likely	9%
A little likely	13%
Not at all likely	13%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	55%
Online	33%
Don't know / no preference	12%

Learned Fishing Techniques Through Online Videos	
Yes	22%
No	77%

Top 3 Activities in Last 5 Years	
Bicycling	58%
Hiking	54%
Running or jogging	50%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
Being able to disconnect from technology	74%
To be with family	71%
If it was part of a general outdoor outing	59%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the solitude	56%
To be out in nature or outdoors	56%
To be with family	53%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Security of your parked vehicle	58%
Health problems	51%
Getting time off from work or family obligations	49%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	29%
Poor behavior of other people	26%
Getting time off from work or family obligations	18%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	47%
Internet other than customer reviews	39%
Help from sales associates	39%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	34%
Phone text with link to state website	14%
App on phone	33%
Auto renewal with credit card on file	16%

Likelihood of Using Free All-in-One Fishing App	
Very likely	21%
Somewhat likely	19%
A little likely	11%
Not at all likely	49%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	21%
No	79%

**SUBURBAN AREA RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	37%
Somewhat interested	20%
A little interested	13%
Not at all interested	30%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	68%
To be with family	66%
To be with friends	57%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with friends	57%
For the scenery	54%
To be out in nature or outdoors	50%

Top 3 Things That Took Away from Fishing (among active anglers)	
Scheduling time with fishing companions	29%
Finding places that are not crowded	25%
Lack of fish or not catching fish	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	38%
Fish advisories	21%
Health problems	16%

Top 3 Social Media Used	
Facebook	69%
Instagram	42%
YouTube	29%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	59%
Somewhat likely	13%
A little likely	9%
Not at all likely	18%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	47%
Online	45%
Don't know / no preference	8%

Learned Fishing Techniques Through Online Videos	
Yes	16%
No	84%

Top 3 Activities in Last 5 Years	
Bicycling	56%
Hiking	56%
Running or jogging	53%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
For the solitude	62%
If it were part of your vacation	53%
For the scenery	38%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	48%
To be with friends	42%
To relax	38%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Seeing litter	48%
Mosquitoes and other pests	38%
Parking to get to the fishing spots	29%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Getting time off from work or family obligations	21%
Nobody to go with	19%
Finding places that are not crowded	17%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	43%
Ease of using the website	39%
Customer reviews	38%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	41%
Phone text with link to state website	24%
App on phone	40%
Auto renewal with credit card on file	13%

Likelihood of Using Free All-in-One Fishing App	
Very likely	23%
Somewhat likely	18%
A little likely	11%
Not at all likely	48%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	16%
No	83%

**SMALL CITY / TOWN RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	36%
Somewhat interested	15%
A little interested	15%
Not at all interested	35%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	83%
To relax	71%
To be with family	71%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	54%
To be out in nature or outdoors	36%
To be with friends	34%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off work or family obligations	31%
Seeing litter	30%
Water quality issues	27%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	38%
Getting time off work or family obligations	24%
Cost of travel or equipment	23%

Top 3 Social Media Used	
Facebook	53%
YouTube	22%
Instagram	20%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	61%
Somewhat likely	18%
A little likely	8%
Not at all likely	11%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	69%
Online	22%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	16%
No	83%

Top 3 Activities in Last 5 Years	
Hiking	53%
Bicycling	49%
Camping	45%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To relax	63%
To be out in nature or outdoors	56%
To be with family	39%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	70%
To be with family	52%
Being able to disconnect from technology	51%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	40%
Water quality issues	30%
Fish advisories	26%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	43%
Getting access to places to do outdoor recreation	26%
Health problems	25%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	43%
Customer reviews	41%
Ease of using the website	37%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	21%
Phone text with link to state website	23%
App on phone	15%
Auto renewal with credit card on file	4%

Likelihood of Using Free All-in-One Fishing App	
Very likely	25%
Somewhat likely	14%
A little likely	7%
Not at all likely	52%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	22%
No	78%

**RURAL AREA RESIDENTS**

Interest in Fishing in Next 5 Years	
Very interested	43%
Somewhat interested	17%
A little interested	12%
Not at all interested	28%

Top 3 Activities in Last 5 Years	
Hiking	53%
Recreational fishing	52%
Camping	50%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	78%
To be out in nature or outdoors	74%
To relax	72%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	61%
If somebody asked me to go	56%
To be with family	49%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
For the scenery	54%
To be with family	32%
To be with friends	29%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	50%
If there was a place close by	42%
To be with family	38%

Top 3 Things That Took Away from Fishing (among active anglers)	
Mosquitoes and other pests	23%
Getting time off work or family obligations	19%
Seeing litter	17%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Mosquitoes and other pests	35%
Finding places that are not crowded	32%
Health problems	31%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	32%
Water quality issues	30%
Mosquitoes and other pests	22%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Health problems	51%
Mosquitoes and other pests	34%
Loss of interest	31%

Top 3 Social Media Used	
Facebook	67%
Instagram	23%
YouTube	15%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	46%
Ease of using the website	37%
Customer reviews	32%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	72%
Somewhat likely	12%
A little likely	7%
Not at all likely	8%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	40%
Phone text with link to state website	21%
App on phone	24%
Auto renewal with credit card on file	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	63%
Online	31%
Don't know / no preference	7%

Likelihood of Using Free All-in-One Fishing App	
Very likely	18%
Somewhat likely	11%
A little likely	12%
Not at all likely	58%

Learned Fishing Techniques Through Online Videos	
Yes	10%
No	89%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	21%
No	79%

## HAS CHILDREN IN HOUSEHOLD

Interest in Fishing in Next 5 Years	
Very interested	49%
Somewhat interested	13%
A little interested	15%
Not at all interested	23%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	82%
To be out in nature or outdoors	80%
To relax	74%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	43%
To be with family	33%
For the scenery	24%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	31%
Mosquitoes and other pests	22%
Scheduling time with fishing companions	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	45%
Fish advisories	25%
Cost of travel or equipment.	24%

Top 3 Social Media Used	
Facebook	74%
Instagram	38%
YouTube	32%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	73%
Somewhat likely	10%
A little likely	7%
Not at all likely	9%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	62%
Online	32%
Don't know / no preference	6%

Learned Fishing Techniques Through Online Videos	
Yes	22%
No	76%

Top 3 Activities in Last 5 Years	
Hiking	61%
Bicycling	61%
Camping	60%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
Being able to disconnect from technology	85%
To be with family	85%
For the solitude	57%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be with family	63%
To relax	62%
To be out in nature or outdoors	51%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Seeing litter	76%
Do not like handling fish	55%
Getting time off from work or family obligations	53%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Getting time off from work or family obligations	33%
Poor behavior of other people	29%
Getting access to places to do outdoor recreation	24%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	43%
Ease of using the website	41%
Customer reviews	39%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	24%
Phone text with link to state website	28%
App on phone	37%
Auto renewal with credit card on file	12%

Likelihood of Using Free All-in-One Fishing App	
Very likely	36%
Somewhat likely	18%
A little likely	13%
Not at all likely	31%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	26%
No	72%

**PARTICIPATED IN HIKING**

Interest in Fishing in Next 5 Years	
Very interested	43%
Somewhat interested	20%
A little interested	11%
Not at all interested	24%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	82%
To relax	70%
To be with family	69%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	45%
To be out in nature or outdoors	42%
To be with friends	40%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	25%
Water quality issues	21%
Mosquitoes and other pests	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	40%
Did not like handling fish	24%
Fish advisories	17%

Top 3 Social Media Used	
Facebook	68%
Instagram	35%
YouTube	26%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	71%
Somewhat likely	11%
A little likely	8%
Not at all likely	8%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	61%
Online	33%
Don't know / no preference	63%

Learned Fishing Techniques Through Online Videos	
Yes	19%
No	78%

Top 3 Activities in Last 5 Years	
Bicycling	71%
Camping	68%
Running or jogging	59%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	61%
To be with family	52%
If somebody asked you to go	45%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	87%
To be out in nature or outdoors	71%
For the solitude	62%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	32%
Water quality issues	25%
Do not like handling fish	23%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	30%
Getting time off from work or family obligations	20%
Mosquitoes and other pests	19%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	50%
Ease of using the website	41%
Customer reviews	36%

Likelihood of Renewing License Through... (among active, sporadic, and lapsed anglers)	
Email with link to state website	35%
Phone text with link to state website	24%
App on phone	32%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	29%
Somewhat likely	15%
A little likely	11%
Not at all likely	45%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	23%
No	74%

## PARTICIPATED IN BICYCLING

Interest in Fishing in Next 5 Years	
Very interested	43%
Somewhat interested	22%
A little interested	13%
Not at all interested	22%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	83%
To relax	72%
To be with family	72%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	51%
To be out in nature or outdoors	40%
To be with friends	40%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	28%
Seeing litter	24%
Water quality issues	21%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	41%
Water quality issues	25%
Did not like handling fish	22%

Top 3 Social Media Used	
Facebook	71%
Instagram	34%
YouTube	26%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	69%
Somewhat likely	13%
A little likely	8%
Not at all likely	8%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	60%
Online	32%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	22%
No	79%

Top 3 Activities in Last 5 Years	
Hiking	74%
Running or jogging	64%
Camping	63%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	60%
To be with family	53%
To relax	42%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	80%
If there was a place close by	67%
To be out in nature or outdoors	63%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	32%
Do not like handling fish	27%
Water quality issues	23%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	30%
Poor behavior of other people	24%
Getting time off from work or family obligations	23%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	49%
Ease of using the website	45%
Internet other than customer reviews	35%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	33%
Phone text with link to state website	23%
App on phone	31%
Auto renewal with credit card on file	11%

Likelihood of Using Free All-in-One Fishing App	
Very likely	28%
Somewhat likely	19%
A little likely	42%
Not at all likely	41%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	25%
No	73%

**PARTICIPATED IN CAMPING**

Interest in Fishing in Next 5 Years	
Very interested	51%
Somewhat interested	20%
A little interested	11%
Not at all interested	18%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	83%
To be with family	71%
To relax	69%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be out in nature or outdoors	60%
To be with family	51%
To be with friends	42%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	26%
Seeing litter	25%
Mosquitoes and other pests	22%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	34%
Did not like handling fish	23%
Not being confident in your skill level	21%

Top 3 Social Media Used	
Facebook	71%
Instagram	33%
YouTube	25%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	73%
Somewhat likely	11%
A little likely	8%
Not at all likely	7%

Prefer to Buy Fishing License... (Q161) (among active, sporadic, and lapsed anglers)	
In store	60%
Online	34%
Don't know / no preference	6%

Learned Fishing Techniques Through Online Videos	
Yes	22%
No	75%

Top 3 Activities in Last 5 Years	
Hiking	77%
Bicycling	70%
Recreational fishing	63%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	75%
To be with family	65%
If somebody asked you to go	54%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	83%
To be with family	71%
If there was a place close by	70%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	47%
Water quality issues	32%
Nobody to go with	26%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Nobody to go with	21%
Mosquitoes and other pests	20%
Finding places that are not crowded	19%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	48%
Ease of using the website	40%
Customer reviews	36%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	33%
Phone text with link to state website	21%
App on phone	31%
Auto renewal with credit card on file	11%

Likelihood of Using Free All-in-One Fishing App	
Very likely	31%
Somewhat likely	19%
A little likely	12%
Not at all likely	37%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	28%
No	69%

## PARTICIPATED IN RUNNING/JOGGING

Interest in Fishing in Next 5 Years	
Very interested	44%
Somewhat interested	20%
A little interested	14%
Not at all interested	21%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	81%
To relax	71%
To be with family	70%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	55%
To be with friends	46%
To be out in nature or outdoors	41%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	30%
Mosquitoes and other pests	21%
Water quality issues	19%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	47%
Water quality issues	23%
Fish advisories	20%

Top 3 Social Media Used	
Facebook	70%
Instagram	45%
YouTube	32%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	70%
Somewhat likely	11%
A little likely	10%
Not at all likely	8%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	55%
Online	39%
Don't know / no preference	6%

Learned Fishing Techniques Through Online Videos	
Yes	23%
No	74%

Top 3 Activities in Last 5 Years	
Bicycling	73%
Hiking	71%
Camping	58%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	59%
To be with family	59%
To relax	53%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
For the scenery	74%
To be with family	65%
If there was a place close by	61%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Getting time off from work or family obligations	33%
The cost of licenses and permits	27%
Do not like handling fish	25%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	38%
Nobody to go with	29%
Poor behavior of other people	24%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	56%
Ease of using the website	48%
Customer reviews	41%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	38%
Phone text with link to state website	24%
App on phone	36%
Auto renewal with credit card on file	13%

Likelihood of Using Free All-in-One Fishing App	
Very likely	31%
Somewhat likely	19%
A little likely	9%
Not at all likely	40%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	24%
No	73%

**PARTICIPATED IN PADDLING/FLOATING**

Interest in Fishing in Next 5 Years	
Very interested	47%
Somewhat interested	20%
A little interested	15%
Not at all interested	18%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	84%
To be with family	70%
To relax	66%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	54%
For the scenery	46%
To be out in nature or outdoors	46%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	25%
Water quality issues	21%
Mosquitoes and other pests	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest.	45%
Mosquitoes and other pests	22%
Did not like handling fish	20%

Top 3 Social Media Used	
Facebook	71%
Instagram	37%
YouTube	27%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	71%
Somewhat likely	13%
A little likely	7%
Not at all likely	8%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	60%
Online	34%
Don't know / no preference	3%

Learned Fishing Techniques Through Online Videos	
Yes	22%
No	76%

Top 3 Activities in Last 5 Years	
Hiking	78%
Bicycling	75%
Camping	74%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	61%
To be out in nature or outdoors	50%
To relax	45%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	74%
For the scenery	72%
If there was a place close by	66%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Do not like handling fish	36%
Loss of interest	33%
Getting time off from work or family obligations	25%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Nobody to go with	44%
Getting time off from work or family obligations	43%
Finding places that are not crowded	39%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	47%
Recommendations from friends or family	47%
Customer reviews	41%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	37%
Phone text with link to state website	24%
App on phone	33%
Auto renewal with credit card on file	11%

Likelihood of Using Free All-in-One Fishing App	
Very likely	31%
Somewhat likely	18%
A little likely	9%
Not at all likely	41%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	25%
No	73%

## PARTICIPATED IN MOTORIZED BOATING

Interest in Fishing in Next 5 Years	
Very interested	55%
Somewhat interested	19%
A little interested	10%
Not at all interested	16%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	84%
To be with family	80%
To relax	71%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
For the scenery	39%
To be with friends	38%
To be with family	32%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	25%
Seeing litter	23%
Mosquitoes and other pests	22%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	50%
Did not like handling fish	43%
Fish advisories	26%

Top 3 Social Media Used	
Facebook	69%
Instagram	37%
YouTube	25%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	77%
Somewhat likely	10%
A little likely	6%
Not at all likely	6%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	58%
Online	32%
Don't know / no preference	10%

Learned Fishing Techniques Through Online Videos	
Yes	24%
No	74%

Top 3 Activities in Last 5 Years	
Hiking	70%
Bicycling	68%
Camping	68%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be out in nature or outdoors	52%
To relax	49%
To be with family	48%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	94%
For the scenery	70%
Being able to disconnect from technology	63%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Do not like handling fish	34%
Security of your parked vehicle	29%
Fish advisories	28%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pest	33%
Nobody to go with	29%
Getting access to places to do outdoor recreation	26%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	49%
Ease of using the website	42%
Customer reviews	33%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	36%
Phone text with link to state website	24%
App on phone	30%
Auto renewal with credit card on file	12%

Likelihood of Using Free All-in-One Fishing App	
Very likely	36%
Somewhat likely	18%
A little likely	8%
Not at all likely	38%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	27%
No	70%

**PARTICIPATED IN ANY TYPE OF BOATING**

(Note that this encompasses paddling, motorboating, and any other type of boating.)

Interest in Fishing in Next 5 Years	
Very interested	48%
Somewhat interested	19%
A little interested	14%
Not at all interested	18%

Top 3 Activities in Last 5 Years	
Hiking	71%
Bicycling	68%
Camping	67%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	83%
To be with family	74%
To relax	69%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
To be with family	51%
To be out in nature or outdoors	49%
If somebody asked you to go	44%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	46%
For the scenery	45%
To be with friends	44%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To relax	74%
For the scenery	72%
If there was a place close by	56%

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	23%
Seeing litter	22%
Mosquitoes and other pests	20%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Do not like handling fish	25%
Getting time off from work or family obligations	24%
Loss of interest	24%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	51%
Fish advisories	22%
Did not like handling fish	22%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	35%
Nobody to go with	35%
Getting time off from work or family obligations	30%

Top 3 Social Media Used	
Facebook	68%
Instagram	34%
YouTube	26%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	44%
Ease of using the website	43%
Customer reviews	37%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	71%
Somewhat likely	12%
A little likely	7%
Not at all likely	8%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	34%
Phone text with link to state website	22%
App on phone	29%
Auto renewal with credit card on file	11%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	59%
Online	32%
Don't know / no preference	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	31%
Somewhat likely	18%
A little likely	9%
Not at all likely	42%

Learned Fishing Techniques Through Online Videos	
Yes	21%
No	76%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	25%
No	72%

## VERY OR SOMEWHAT INTERESTED IN FISHING, DID NOT GO PAST 10 YEARS

Interest in Fishing in Next 5 Years	
Very interested	36%
Somewhat interested	64%
A little interested	0%
Not at all interested	0%

Top 3 Reasons for Fishing (among active anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with friends	68%
To be with family	65%
For the scenery	56%

Top 3 Things That Took Away from Fishing (among active anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Water quality issues	38%
Loss of interest	23%
Mosquitoes and other pests	19%

Top 3 Social Media Used	
Facebook	58%
YouTube	39%
Instagram	36%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	22%
Somewhat likely	16%
A little likely	26%
Not at all likely	30%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	59%
Online	23%
Don't know / no preference	18%

Learned Fishing Techniques Through Online Videos	
Yes	16%
No	81%

Top 3 Activities in Last 5 Years	
Bicycling	66%
Running or jogging	61%
Hiking	50%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be out in nature or outdoors	81%
For the solitude	78%
To be with family	69%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Finding places that are not crowded	37%
Nobody to go with	28%
Getting time off from work or family obligations	20%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	62%
Recommendations from friends or family	60%
Help from sales associates	54%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	24%
Phone text with link to state website	16%
App on phone	22%
Auto renewal with credit card on file	17%

Likelihood of Using Free All-in-One Fishing App	
Very likely	17%
Somewhat likely	28%
A little likely	10%
Not at all likely	43%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	18%
No	79%

**TYPICALLY GOES FISHING WITH OTHERS**

Interest in Fishing in Next 5 Years	
Very interested	55%
Somewhat interested	25%
A little interested	11%
Not at all interested	9%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	76%
To be with family	75%
To relax	64%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Took Away from Fishing (among active anglers)	
Scheduling time with fishing companions	21%
Seeing litter	21%
Water quality issues	18%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Social Media Used	
Facebook	71%
Instagram	34%
YouTube	27%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	67%
Somewhat likely	14%
A little likely	10%
Not at all likely	8%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	59%
Online	32%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	23%
No	75%

Top 3 Activities in Last 5 Years	
Recreational fishing	72%
Camping	65%
Hiking	61%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)		
	N/A	N/A
	N/A	N/A
	N/A	N/A

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	50%
Ease of using the website	41%
Customer reviews	38%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	37%
Phone text with link to state website	21%
App on phone	29%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	33%
Somewhat likely	17%
A little likely	11%
Not at all likely	38%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	25%
No	73%

## SOMETIMES FISHES ALONE

Interest in Fishing in Next 5 Years	
Very interested	78%
Somewhat interested	12%
A little interested	9%
Not at all interested	1%

Top 3 Reasons for Fishing (among active anglers)	
To relax	84%
To be out in nature or outdoors	83%
To be with family	67%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	35%
Mosquitoes and other pests	25%
Finding places that are not crowded	24%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Social Media Used	
Facebook	60%
Does not use social media	30%
Instagram	20%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	75%
Somewhat likely	12%
A little likely	5%
Not at all likely	6%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	63%
Online	28%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	31%
No	66%

Top 3 Activities in Last 5 Years	
Recreational fishing	89%
Hiking	69%
Camping	68%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	33%
Customer reviews	29%
Ease of using the website	28%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	30%
Phone text with link to state website	24%
App on phone	21%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	37%
Somewhat likely	23%
A little likely	10%
Not at all likely	30%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	40%
No	58%

**FISHING PARTICIPATION IS DECREASING**

Interest in Fishing in Next 5 Years	
Very interested	50%
Somewhat interested	24%
A little interested	15%
Not at all interested	11%

Top 3 Reasons for Fishing (among active anglers)	
To be with family	72%
To be out in nature or outdoors	68%
To relax	66%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	27%
Water quality issues	25%
Poor behavior of other people	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Social Media Used	
Facebook	69%
Instagram	25%
Does not use social media	23%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	62%
Somewhat likely	16%
A little likely	10%
Not at all likely	11%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	68%
Online	24%
Don't know / no preference	8%

Learned Fishing Techniques Through Online Videos	
Yes	20%
No	77%

Top 3 Activities in Last 5 Years	
Recreational fishing	69%
Camping	60%
Hiking	59%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	48%
Customer reviews	39%
Ease of using the website	37%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	18%
Phone text with link to state website	26%
App on phone	29%
Auto renewal with credit card on file	4%

Likelihood of Using Free All-in-One Fishing App	
Very likely	25%
Somewhat likely	15%
A little likely	12%
Not at all likely	44%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	24%
No	73%

## HAVE BEEN FISHING IN THE PAST 5 YEARS, HAVE NEVER PURCHASED A LICENSE

Interest in Fishing in Next 5 Years	
Very interested	54%
Somewhat interested	23%
A little interested	9%
Not at all interested	15%

Top 3 Reasons for Fishing (among active anglers)	
To relax	69%
To be out in nature or outdoors	65%
To disconnect from technology	60%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Fishing (among active anglers)	
Getting time off from work or family obligations	45%
Finding places that are not crowded	31%
Seeing litter	26%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Social Media Used (Q378 out of everyone)	
Facebook	74%
Instagram	48%
YouTube	46%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	15%
Somewhat likely	31%
A little likely	27%
Not at all likely	20%

Prefer to Buy Fishing License... (Q161) (among active, sporadic, and lapsed anglers)	
In store	42%
Online	39%
Don't know / no preference	20%

Learned Fishing Techniques Through Online Videos	
Yes	27%
No	71%

Top 3 Activities in Last 5 Years	
Camping	74%
Bicycling	67%
Hiking	64%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Ease of using the website	60%
Recommendations from friends or family	47%
Internet other than customer reviews	38%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	28%
Phone text with link to state website	26%
App on phone	31%
Auto renewal with credit card on file	10%

Likelihood of Using Free All-in-One Fishing App	
Very likely	45%
Somewhat likely	8%
A little likely	11%
Not at all likely	36%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	35%
No	62%

**FREQUENTLY OR OCCASIONALLY USE SOCIAL MEDIA**

Interest in Fishing in Next 5 Years	
Very interested	37%
Somewhat interested	19%
A little interested	18%
Not at all interested	25%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	75%
To relax	74%
To be with family	74%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	46%
For the scenery	46%
To be out in nature or outdoors	44%

Top 3 Things That Took Away from Fishing (among active anglers)	
Seeing litter	23%
Finding places that are not crowded	20%
Mosquitoes and other pests	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	46%
Fish advisories	32%
Did not like handling fish	25%

Top 3 Social Media Used	
Facebook	88%
Instagram	42%
YouTube	33%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	58%
Somewhat likely	14%
A little likely	10%
Not at all likely	16%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	50%
Online	41%
Don't know / no preference	9%

Learned Fishing Techniques Through Online Videos	
Yes	17%
No	80%

Top 3 Activities in Last 5 Years	
Hiking	57%
Bicycling	56%
Camping	53%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
Being able to disconnect from technology	65%
To be with family	65%
To teach someone else to fish	45%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be with family	64%
To relax	55%
For the scenery	49%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Health problems	54%
Getting time off from work or family obligations	50%
Mosquitoes and other pests	39%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Mosquitoes and other pests	31%
Poor behavior of other people	27%
Getting time off from work or family obligations	26%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Recommendations from friends or family	48%
Ease of using the website	43%
Customer reviews	39%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	39%
Phone text with link to state website	28%
App on phone	32%
Auto renewal with credit card on file	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	28%
Somewhat likely	21%
A little likely	12%
Not at all likely	38%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	18%
No	80%

## RARELY OR NEVER USE SOCIAL MEDIA

Interest in Fishing in Next 5 Years	
Very interested	35%
Somewhat interested	17%
A little interested	8%
Not at all interested	39%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	78%
To be with family	66%
To be with friends	56%

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
To be with family	29%
For the scenery	26%
To be with friends	23%

Top 3 Things That Took Away from Fishing (among active anglers)	
Scheduling time with fishing companions	30%
Getting time off from work or family obligations	22%
Seeing litter	20%

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
Loss of interest	30%
Getting time off from work or family obligations	24%
Mosquitoes and other pests	20%

Top 3 Social Media Used	
Does not use social media	65%
Facebook	17%
YouTube	5%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	61%
Somewhat likely	18%
A little likely	6%
Not at all likely	14%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	66%
Online	21%
Don't know / no preference	14%

Learned Fishing Techniques Through Online Videos	
Yes	11%
No	86%

Top 3 Activities in Last 5 Years	
Hiking	46%
Recreational fishing	39%
Bicycling	39%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
Being able to disconnect from technology	66%
To be out in nature or outdoors	50%
To be with friends	47%

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
To be out in nature or outdoors	36%
To relax	34%
For the solitude	31%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
Poor behavior of other people	41%
Health problems	40%
Do not feel comfortable with other people who are fishing	27%

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
Health problems	29%
Nobody to go with	21%
Poor behavior of other people	19%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Help from sales associates	28%
Ease of using the website	27%
Customer reviews	26%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	26%
Phone text with link to state website	15%
App on phone	18%
Auto renewal with credit card on file	11%

Likelihood of Using Free All-in-One Fishing App	
Very likely	13%
Somewhat likely	15%
A little likely	8%
Not at all likely	63%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	21%
No	77%

## FISHED IN THE PAST 5 YEARS BUT DID NOT PURCHASE ANY FISHING EQUIPMENT

Interest in Fishing in Next 5 Years	
Very interested	57%
Somewhat interested	23%
A little interested	9%
Not at all interested	12%

Top 3 Activities in Last 5 Years	
Camping	65%
Hiking	65%
Bicycling	57%

Top 3 Reasons for Fishing (among active anglers)	
To be out in nature or outdoors	69%
To relax	67%
To be with family	59%

Top 3 Things That Would Encourage Going Fishing (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Would Encourage Going Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Would Encourage Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Fishing (among active anglers)	
Water quality issues	24%
Getting time off from work or family obligations	24%
Scheduling time with fishing companions	21%

Top 3 Reasons for Not Fishing in Past 5 Years (among sporadic anglers)	
	N/A
	N/A
	N/A

Top 3 Reasons for No Longer Fishing (among lapsed anglers)	
	N/A
	N/A
	N/A

Top 3 Things That Took Away from Outdoor Rec. (among non-anglers)	
	N/A
	N/A
	N/A

Top 3 Social Media Used	
Facebook	62%
Instagram	28%
Does not use social media	24%

Top 3 Purchase Factors for Fishing or Outdoor Recreation Equipment	
Customer reviews	45%
Recommendations from friends or family	37%
Ease of using the website	35%

Likelihood of Buying Fishing License Next 5 Years (among active, sporadic, and lapsed anglers)	
Very likely	63%
Somewhat likely	17%
A little likely	9%
Not at all likely	10%

Likelihood of Renewing License Through (among active, sporadic, and lapsed anglers)	
Email with link to state website	28%
Phone text with link to state website	22%
App on phone	21%
Auto renewal with credit card on file	11%

Prefer to Buy Fishing License (among active, sporadic, and lapsed anglers)	
In store	64%
Online	27%
Don't know / no preference	9%

Likelihood of Using Free All-in-One Fishing App	
Very likely	24%
Somewhat likely	16%
A little likely	12%
Not at all likely	48%

Learned Fishing Techniques Through Online Videos	
Yes	21%
No	77%

Did Other Self-Teaching Methods to Learn to Fish	
Yes	26%
No	71%

## 6. RECOMMENDATIONS FROM THE RESEARCH

This chapter takes all of the recommendations from the previous chapters and organizes them and presents them by theme. While the previous chapters were, for the most part, organized by the data collection method (e.g., focus groups, survey), this chapter is organized by theme, with all of the recommendations relating to that theme presented together, regardless of the source of the data.

### DEMOGRAPHIC TRENDS AND IMPLICATIONS

There are seven major demographic and societal trends currently taking place that will affect the future of fishing in the United States. Each of these will have an important impact on societal interest and support for fishing as well as the recruitment, retention, and reactivation of anglers.

1. America's population is increasing dramatically: by 2045 the population of the U.S. will have increased by more than 40% since 2000.
2. America is becoming more urbanized.
3. The American general population is becoming older: a few years after 2050 there will be more individuals over 65 than under 18.
4. The American general population is becoming more diverse: the Hispanic population is expected to more than double by 2060 while today's "minorities" will be a majority (almost 60%) of the U.S. population.
5. The number of foreign-born individuals is increasing: at the beginning of the 1960s, 1 in 20 people living in the U.S. were foreign-born. Today, approximately 1 in 8 are foreign-born. By 2050 approximately 1 in 5 will be foreign-born.
6. Americans' wildlife values are changing. The American population is moving away from more traditional or utilitarian values to more mutualistic values. People who hold mutualistic values believe fish and wildlife are part of our social network and that we should live in harmony with them.
7. Important angler cohorts are aging out of buying fishing licenses, and substantial decreases in fishing license buyers are expected to begin as early as 2022.

These trends have some important implications for fishing, which are detailed in the following sections of the report. Some of the important implications from the above demographic trends include the following:

- **Agencies must continue to support and encourage the expansion of urban fishing programs. Urban fishing programs work. The Iowa Department of Natural Resources' urban fishing program has been a major success in recruiting anglers in Iowa and is but one example of the importance of these programs (Responsive Management, 2019a). Urban fishing programs are vital, as they bring the fishing experience directly to growing populations of Americans, enhance access to fishing opportunities to minorities living in urban areas, and enhance state fish and wildlife agencies' relevancy by expanding programs and services to previously under-represented audiences. Urban programs will necessarily be different than fishing programs for traditional audiences. Research is encouraged to better understand specifically what works and what does not work in fostering fishing participation among urban residents. Research in this area will be an important investment for the future of fishing in a changing America.**
- **Agencies, NGOs, and industry groups must continue using models and images of minorities. Fostering Latino and black/African-American spokespersons and**

**influencers for fishing will be time and resources well spent in planning for the future and again making state fish and wildlife agencies more relevant to a changing America.**

- **The fishing community must begin planning for a drop in traditional license purchasers as key cohorts begin to age out of fishing. The era of taking rural white males as a given constituency for fishing license sales is over, as this previously taken-for-granted group for participation and license sales gets older and declines as a percentage of the overall demographic make-up of America. Efforts to retain this group well after they no longer need to purchase a license as well as encouraging this group to become avid mentors to others in order to pass on the tradition has become a necessity, not a luxury. While new programs for new non-traditional audiences are critical, the base angler of the past 50 years should not be taken for granted, and new ways to continue having this group engaged are critical. This base angler group and their needs must be an integral part of R3 programs.**
- **In the past, social constraints (work and family obligations, age- and health-related issues, etc.) have always been more of an impediment to fishing than resource-related constraints. However, with increased urbanization of the country, access issues will be exacerbated and may result in resource constraints becoming as important as social constraints—in effect, a twofold impact of impediments to fishing. Access to fishing locations must become one of the most important pieces of information provided to anglers. Access should be an important centerpiece of information and education efforts, and any communications programs designed to recruit, retain, and reactivate anglers must include detailed information on access. In addition to enhancing information on fishing access, a renewed commitment by the fishing community must be made to keeping access points and fishing locations clean and litter free. Anglers and those expressing an interest in going fishing are highly cognizant and sensitive to trashed out fishing access locales.**
- **Americans are becoming less utilitarian and more mutualistic. In the future, it will be more difficult to promote fishing for utilitarian reasons. Instead, it will be more important to emphasize the conservation, naturalistic, and social benefits of fishing. Additionally, the fishing community may increasingly be obligated to defend the humaneness of fishing. While public approval of fishing today remains high, America's changing values may impact the current public perception of fishing.**

## **CLIMATE CHANGE**

- **The fishing community will need to adapt to changes in fisheries locations, timing of fish lifecycles, and other effects of climate change on fisheries. In particular, access to fisheries will change as the fisheries themselves change locations that they inhabit.**

## **THE IMPORTANCE OF THE RECREATIONAL BOATING AND FISHING FOUNDATION**

Hunting and fishing both broadly declined over the latter part of the 20<sup>th</sup> century. However, while hunting participation continues to fall, fishing participation has seen a healthy increase of late. Further, awareness of fishing opportunities has increased among the American population. While it would be difficult to establish a direct causal link between the increase in fishing participation in the U.S. and the work of RBFF, there is certainly reason to note the connection. In fact, a

recent study by Southwick Associates (2019) tied increases in fishing participation in various states to R3 efforts linked to RBFF.

By all quantifiable measures, RBFF's efforts over the past decade have been a success. In the 1999 report, *The Future of Fishing in the United States: Assessment of Needs to Increase Sport Fishing Participation* (Responsive Management, 1999), numerous strategies and recommendations were put forth based on extensive research. Based on that research and additional research from the academic community and RBFF, as well as a strategic plan developed for the Sportfishing and Boating Partnership Council, the fishing community has reaped the rewards of increased awareness among the American public of fishing opportunities and of fishing as an activity worth pursuing. These benefits include an overall increase in fishing participation beginning in 2006 and documented by the *National Survey*.

Additionally, a major finding from this study, which included focus groups with agency R3 professionals, was the importance of RBFF in assisting states with their R3 efforts. Further, RBFF was lauded for providing valuable research and broadscale marketing and communications guidance to states and for the professionalism of RBFF staff in assisting states with R3 programs. Finally, this research study documented that Latinos, compared to blacks/African-Americans and Asian-Americans, are significantly more likely to have participated in fishing over the past 5 years. This finding is especially noteworthy in light of RBFF's recent *Vamos A Pescar™* campaign, which specifically targets Latinos for fishing participation. Again, while the study did not establish a direct cause-and-effect link between the campaign and fishing participation among Latinos, the correlation is noteworthy nonetheless. With this success noted, RBFF and the fishing community are now confronted with new challenges outlined in this report, the main challenges being the changing demographic and social landscape in the U.S. Overall the results of this study suggest that RBFF should continue on its current successful trajectory but with continuous improvement as suggested in this report.

## **TARGET OUTDOOR RECREATIONISTS**

Interest in fishing varies among Americans. Crosstabulations of the survey data show that important target markets include those who participate in other outdoor recreation, particularly boaters (including those who use motorized boats, canoes, kayaks, paddleboards, and other nonmotorized watercraft), campers, runners/joggers, bicyclists, and hikers. Outdoor recreationists are an important target market, as these individuals are already outdoors and have a proven interest in nature-based activities. They are also more easily targeted than wide-ranging segments of the population such as "females" or "suburban residents."

## **OTHER IMPORTANT TARGET MARKETS**

Other markets that show high levels of interest in fishing include males, rural residents, residents of the southeast, and Latinos.

## **FISHING WITHOUT A LICENSE**

The research for this study indicates that a substantial number of Americans who fish do not buy a license. While not everyone who fishes is required to buy a license (for example, those who fish on private ponds or private property in certain states), the study results suggest that there are people who *should* be buying licenses but do not. This finding has numerous implications. First is the substantial loss of revenue to state fish and wildlife agencies as a result of these lost license sales and the accompanying loss of tax revenue that is allocated based on states' license sales.

The second implication is the lost connection between the angler and the state fish and wildlife agency. Additionally, it might be reasonable to expect that, if a segment of the angling population is choosing to forgo the purchase of a required license, other laws that impact the resource may also be routinely broken. Finally, conservation law enforcement personnel have indicated that, besides being uninformed, some people who fish without a license do so because they feel that they will not be caught. There is some indication that law enforcement personnel feel that issuing citations is not as high a priority as it once was because they think that courts are unlikely to take the violation seriously, according to personal communications the researchers have had at National Association of Conservation Law Enforcement Officers' events. This suggests a need for increased education among general population residents on the importance of purchasing a license and increased awareness throughout the court system of the purpose and significance of fish and wildlife laws.

Fishing without a license appears to be most pervasive among Latinos; blacks/African-Americans; residents of large cities/urban areas; those 18 to 34 years old; residents of the Northeast; females; and those with children under 18 years old. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

Clearly, new and enhanced communications programs are necessary to increase awareness of the license requirements as well as the importance of purchasing a license for conservation purposes. The purchase of a fishing license needs to be re-framed not as simply another government fee or regulation but an act of conservation and environmental responsibility. Finally, additional research needs to be undertaken to better understand why so many people fish without a license, as well as the most effective communications, enforcement, and regulatory strategies to address this detrimental behavior.

## **CAMPAIGNS AND REMINDERS**

Email campaigns and renewal notices via email are important and will continue to be effective ways to retain and reactivate anglers. It appears that most anglers welcome these emails. However, replicating this method via apps and texts should be carefully considered, as many anglers feel these methods are too intrusive. In the survey, anglers were particularly averse to auto-renewal services attached to their credit card (although it should still be an option offered).

## **PURCHASING PREFERENCES**

While online fishing license purchases will become increasingly common (because newer anglers are a little more likely to prefer online purchasing, compared to more established anglers), it is important to recognize that, today, anglers still prefer to purchase their licenses in stores by a 2 to 1 margin. The research indicates that many anglers prefer to buy a license in a store because they are there anyway purchasing other fishing products; other important reasons for this preference include the fact that many anglers prefer to have a hard copy of the license, and that many desire the assistance of a store employee of whom they can ask questions. A further underlying reason is simply that many anglers have always purchased their fishing license in a store and have come to view the experience as a sort of time-honored tradition. Electronic purchases are appealing to agencies because of the marketing opportunities they offer. While many agency and store employees might prefer that anglers purchase their licenses online (for convenience, streamlining of the process, etc.), it must be recognized that stores remain the preferred location of license purchases for many anglers.

## AGENCY ATTITUDE TOWARD R3 AND A SHARED AGENCY VISION

- **To the extent possible, RBFF should assist agencies as necessary to develop a shared angler R3 vision from the top down and across divisions.**

The focus groups of professionals discussed that, in some agencies, the relative lack of focus on angler R3 is the result of the absence of a shared vision or formal plan regarding angler R3. RBFF should assist states to the extent possible to ensure that R3 staff have the full support of agency leadership, especially by formalizing R3 goals through the creation of a comprehensive R3 plan.

- **To the extent possible, RBFF should communicate to agencies in general and agency leadership in particular the importance of separating angler R3 from hunter R3.**

The focus groups of professionals suggest that some agencies still conceptualize of hunter R3 and angler R3 as being part of the same overall initiative—while they obviously share the same broad goals of recruitment, retention, and reactivation, these programs will be most successful if they are kept separate and distinct from one another (this extends to the hiring of dedicated *angler* R3 coordinators, as opposed to *general* R3 coordinators). Additionally, a number of R3 professionals in the focus groups suggested that, because hunting has experienced a more precipitous decline in participation than has fishing, many agencies perceive hunter R3 programs to be a higher priority than angler R3 programs. With this in mind, RBFF should encourage states to view angler R3 with the same importance and urgency as hunter R3.

- **To the extent possible, agencies should hire dedicated angler R3 coordinators—it appears that in some agencies, R3 programming and implementation are delegated to staff who are busy with other non-R3 duties.**

In the focus groups of professionals, it was commonly suggested that the most successful angler R3 programs are the ones supported by dedicated R3 coordinators and staff who specialize in fishing. R3 programs that are managed by staff who juggle competing duties and responsibilities will be less likely to succeed.

## AGENCY R3 PROGRAM EVALUATION

- **RBFF should encourage agencies to evaluate and, if necessary, discontinue programs that are not working.**

While some agency staff may be reluctant to discontinue programs that required substantial time and effort to develop, programs whose effectiveness has not been reliably documented should be eliminated to make room for new, more promising programs based on research, as discussed in the focus groups of professionals. Also note that the consistency of program evaluations appears to vary widely by state: some agencies simply make program evaluations a higher priority than do other agencies; in other cases, evaluations are hindered by inadequate access to the necessary resources (staff, survey tools, funding, contact information for license holders or program participants, etc.). RBFF should continue to encourage states to prioritize program evaluations, especially by providing R3 staff with the resources needed to conduct these evaluations.

- **RBFF should encourage agencies to review relevant data before developing new programs.**

In doing so, RBFF should remind agencies of the importance of developing programs based on data and empirical evidence, best practices, and lessons learned—agencies must avoid simply changing the names of existing programs to “rebrand” them as R3 programs.

- **RBFF should consider taking a more active role in R3 program evaluations. The development of an R3 scorecard by RBFF could be useful, which would help agencies evaluate the resources they are devoting to R3.**

There is likely a role for RBFF to expand its assistance to agencies in terms of angler R3 program evaluations—similar to how the Wildlife Management Institute conducts independent assessments and evaluations of agency programs and work areas, RBFF may be able to more actively assist agencies to inventory, evaluate, and improve their angler R3 programs. Such assistance could make use of the ORAM or other metrics, benchmark tools, and program criteria. This was discussed in the focus groups of professionals.

- **RBFF should explore the feasibility of creating an independent team to evaluate angler R3 programs in terms of their effectiveness and return on investment.**

The findings of such evaluations should not be binding but should function as beneficial guidance—agencies would be well served by an independent review that could reliably determine which programs should be discontinued because of their lack of documented effectiveness. Such a service could help provide the “push” needed to determine the future of programs whose outcomes and impacts are questionable.

## **PARTICIPATION IN OUTDOOR ACTIVITIES, INCLUDING CROSSOVER PARTICIPATION**

- **Target boaters and campers with *retention* and *reactivation* outreach, as these groups are the most likely to also go fishing. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The two activities with the greatest crossover with fishing are motorized boating (66% of motorized boaters go fishing) and camping (63% of campers go fishing). (Crossover refers to participants of one activity who also go fishing.)

- **Target hikers, bicyclers, and runners/joggers with *recruitment* outreach; these are relatively large groups that show some inclination to go fishing. Camping also has a fairly large non-angling component to target with recruitment. (See Chapter 5, which includes one-page summary sheets of the characteristics of those who do each activity.)**

The opposite of crossover discussed above consists of those who do the given activity but do *not* fish—to whom *recruitment* efforts should be directed. While it would seem that motorboaters would be the easiest to recruit (because this group has the highest percentage who also fish), the size of the target market for motorboating is not relatively large: only 12% of the overall U.S. population go motorboating but do *not* fish.

- **If one target market has priority over the others for R3, it would be those who go camping. Campers are the group with the greatest sheer numbers—it was the most popular activity overall—combined with a high propensity to go fishing—it had the second highest crossover participation with fishing.**

The largest target market for recruitment combined with the greatest propensity to fish consists of campers: 53% of residents overall went camping in the previous 5 years, and 63% of all campers went fishing—targets for *retention*. Note that 17% of U.S. residents go camping *but do not fish*, and this represents a fairly large group (about 1 in 6 adult U.S. residents) for *recruitment*, particularly because it is a good chance that at least one of their fellow campers goes fishing.

### **INTEREST IN FISHING AND CHARACTERISTICS OF FISHING PARTICIPANTS**

- **R3 efforts toward those *very* interested in fishing would include the following groups: boaters, both motorboaters and paddlers; those with children in their household; males; those who engage in any of the other non-boating outdoor activities in the survey, but particularly camping; those in the middle age category (35-54 years); rural residents; those in the lower educational level; and Southeast region residents. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

About a third of U.S. residents express the highest interest in the scale, with 36% being *very* interested in fishing. Demographic analyses of the data found the associations discussed above.

- **The above looked at all those interested in fishing, including those who had gone and those who had not gone fishing in the past 5 years. This recommendation now focuses only at those who were very interested *but who did not go*. For R3 efforts towards those very interested in fishing but who have not gone in the past 5 years (i.e., they have latent demand), target the following: Latinos; blacks/African-Americans; young people; those living in a suburban area; those with children in the household; and residents of the Northeast region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **Retention efforts toward active anglers would be targeted to those with the following characteristics: participation in boating of any kind, but particularly motorboating; participation in camping; having children in the household; being in the middle age group; and living in a rural area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of active anglers.)**
- **Retention and reactivation efforts should be directed at sporadic anglers, who are associated with being in the younger age group; living in a suburban area; living in the Midwest region; being female; being ethnically white; and being in the upper income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of sporadic anglers.)**

- **Reactivation efforts (and recruitment efforts as well for those who are long-time lapsed) should be directed toward lapsed anglers, who are associated with the following characteristics: living in the Northeast or West regions; being without children in the household; being in the older age category; living in a small city or town; being ethnically Latino; and having at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) (See Chapter 5, which includes a one-page summary sheet of the characteristics of lapsed anglers; it also includes a summary sheet of non-anglers, although this latter group would be a hard market for recruiting.)**

- **Most R3 should be directed toward freshwater fishing, as that predominates over saltwater fishing. However, in efforts to promote saltwater fishing, be cognizant that higher income anglers and urban anglers are more associated with saltwater fishing.**

The survey shows that 86% of anglers go freshwater fishing, while 38% go saltwater fishing. Anglers in the higher income bracket are more likely to go saltwater fishing than are those in the lower income bracket. In looking at where people live, anglers from rural areas are more likely to fish in freshwater than are their counterparts. Meanwhile, urban anglers are more likely to fish in saltwater than are their counterparts.

- **R3 efforts towards boaters should focus on motorboaters. However, paddlers—canoers and kayakers—should be given important consideration as an emerging market because participation in non-motorized boating is an increasingly popular outdoor recreation activity. The former group (motorboaters) are more likely to fish, although both groups are associated with fishing participation. (See Chapter 5, which includes one-page summary sheets of the characteristics of motorboaters, as well as paddlers and those who do any type of boating.)**

In the survey, 59% of U.S. residents go fishing from a boat at least some of the time. Among those anglers who use a boat to fish, 91% use motorized boats some of the time for fishing, and 38% use boats that are paddled some of the time (29% do both).

- **Promote fishing as a social activity more than a solo activity, as most fishing excursions are done with companions. Those who go fishing with others are detailed in Chapter 5, with a summary sheet devoted to those who fish with others.**

The survey shows that 96% of anglers fish with other people at least some of the time, with 66% saying that they fish almost exclusively with other people. Those other companion anglers are predominantly family: 80% of anglers fish with a family member at least some of the time, 55% fish with friends at least some of the time. Note that 18% fish with friends *but not with family*. This group fishing with friends may likely become more important in light of demographic trends that are occurring: with families becoming more widespread geographically, there may be more anglers who do not go through the traditional “family” path to becoming an angler, and more may need to be recruited via friends.

- **Encourage fishing as a social activity for social groups and the like. Fishing coupled with social events, such as youth or church groups, would provide less avid or non-anglers the opportunity to learn about fishing. In many cases, people who would otherwise never go fishing would be exposed to the recreational benefits of fishing.**

- **For the smaller target market of those who sometimes fish alone, see Chapter 5, which has a summary sheet of those who sometimes go fishing alone.**

Among anglers overall, 33% sometimes fish alone, with 4% indicating that they *always* fish alone.

- **Most fishing excursions are done for the primary purpose of fishing among active anglers. So while retention effort can be devoted to encourage fishing as part of other activities, effort should continue to be devoted to encouraging fishing as its own activity, because this aligns with the way fishing is currently most typically done among established anglers.**

Fishing is more often done as its own activity rather than as part of other activities—in other words, more often the primary purpose of the excursion is to go fishing for 64% of anglers (defined as those who fished as an adult and now go at least rarely). However, 26% typically fish as part of other activities.

- **With the above in mind, do not ignore that other target market of people who fish as part of other activities. Such outreach has the potential to get people who have never fished to try fishing when they might not otherwise go fishing, if that was the sole purpose of the trip. Analyses suggest that newer anglers are more likely than are established anglers to go fishing as part of other activities.**

As indicated above, 26% of anglers typically fish as part of other activities. The results of this study in totality indicate that fishing in conjunction with other activities, such as social, youth, or church groups, will become more important as recruitment becomes more of an issue in the future. A crosstabulation of those who started fishing within the past 10 years (i.e., newer anglers) shows that 45% of them did fishing as part of other activities, compared to 24% of those who started fishing more than 10 years previous.

- **Outreach about access locations should be developed with the fact that most anglers do not typically travel more than a half-hour to get to their fishing spot. Access that is much more than an hour from the target market will be of limited utility to most anglers.**

The majority of anglers who go just to fish (53%) typically travel no more than a half-hour to get to their fishing location.

## MOTIVATIONS FOR FISHING

- **Emphasize the aesthetic and social reasons for fishing in retention outreach: to be out in nature and see scenery, to be with family and friends, and to relax. These had the greatest prominence among reasons to fish among active anglers.**

All of the above reasons have 85% or more of active anglers saying that they were *very* or *somewhat* important as reasons to go fishing.

- **Emphasize these same aspects in fishing recruitment and reactivation efforts—nature, scenery, family, and friends—but also encourage anglers to ask friends to go fishing.**

Lapsed anglers were asked about things that would encourage them to go fishing again; five of them are in the top tier, all with a majority of lapsed anglers saying it would *strongly encourage* or *somewhat encourage* them to fish again: for the scenery (63%), to be with family (63%), to be out in nature or outdoors (59%), if somebody asked them to go (56%), and to be with friends (51%).

- **While the social and aesthetic reasons to fish are the most important, there are some who will be attracted by the excitement of fishing, particularly the excitement of catching a fish (and especially the first fish). So this aspect cannot be completely ignored.**

Although some active anglers in the consumer focus groups openly acknowledged the appeal of fishing as peaceful, calming, and relaxing, many participants who expressed hesitancy or lack of interest in participating often complained that fishing is “boring.” To encourage non-anglers to consider fishing, at least a portion of the marketing needs to emphasize the exciting aspects of fishing, such as the thrill of the catch. Of those who have fished, focus group participants’ memories of fishing often featured two common elements: fishing with family and the excitement of their first catch. Emphasis on the excitement may entice those who heretofore had no interest in fishing.

## **CONSTRAINTS TO FISHING PARTICIPATION**

- **Address anglers’ dislikes, which include access problems, litter, and poor water quality, or at the very least attempt to explain any shortcomings and advertise efforts that are attempting to address these dissatisfactions.**

Among active anglers (those who fished in the past 5 years), access, litter, and water quality are important dislikes over which the agency and fishing industry have some control (lack of time and mosquitos/pests were other top items, but they are mostly out of the agency’s or industry’s realm).

- **Regarding litter, programs to keep access areas clean are important; when people see litter at the access areas, it undermines the message that anglers are environmentalists.**
- **The most important reason that sporadic anglers had not fished in the previous 5 years was not having anybody to fish with—any programs that attempt to reconnect active anglers with sporadic anglers would seemingly be effective.**

Among anglers who fished in the past 10 years but not the past 5, the two reasons above led the list. Other issues included water quality and pests (which were dislikes among active anglers previously discussed).

- **Emphasize finding a place to fish in outreach—access is an important problem that needs to be addressed. It is a problem that may be exacerbated by housing developments and urbanization.**

Not knowing where to fish is one of the most common issues that emerged during this study. Even if those who are interested in fishing know they need to get a license and know they need a fishing pole and bait, they may still have no idea where they should go fishing. TakeMeFishing.org is an excellent resource for this information, but many focus group participants had never heard of the website. Marketing this resource specifically for the purpose of connecting beginners with information on where to fish could potentially remove an important obstacle to fishing. Having all states use the free website plug-ins developed by RBFF is key to reducing barriers and making fishing more convenient.

- **Target Latino families with assistance and resources that will remove their perceived obstacles to fishing.**

While there was some modest to moderate interest in fishing among Latino adults in the consumer focus groups, many of the Latino focus group participants were quick to cite reasons they would not fish. There are many reasons that were given for not fishing among Latino adults, with not having time and not having knowledge being among the top reasons. The expense of fishing came up as well. Latino adults who participate in outdoor recreation focus their activities a lot on family and children. Continue targeting Latino families with marketing of programs and opportunities for family and children, as well as marketing that emphasizes how easy it is to fish. Marketing to Latino families should seek to remove the perceived barriers, including lack of time and knowledge. Programs targeting Latinos have shown success but need to be continued.

## LICENSE PURCHASING PREFERENCES

- **About 1 in 7 active anglers have never purchased a fishing license—a group that needs to be the focus of outreach on the need to purchase a license, as well as the good things that are done with the license fees collected. Target these groups that have a higher propensity to *not* purchase a license: Latino anglers; black/African-American anglers; urban anglers; young anglers; anglers from the Northeast region; female anglers; and anglers with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Among active anglers, 15% indicated that they have never purchased a fishing license. A one-page summary sheet of those who fished in the past 5 years but have never purchased a license is shown in Chapter 5.

- **Among fishing license purchasers, about 1 in 6 purchased their most recent license online. Target these groups with new technologies, particularly for purchasing or renewing a license: those in the higher education bracket; young people; those from the Northeast region; and those in the higher income category. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Overall, 17% of license purchasers bought their last license online.

- **As convenience is a central consideration of many prospective anglers, agencies should encourage online and mobile fishing license purchases to the extent possible—this includes electronic licenses accessible via smartphone.**

In addition to the enhanced ability for agencies to capture email addresses online and through apps, online/app license sales were thought to be more convenient and more efficacious in encouraging fishing participation in general (especially by allowing quick or impromptu license purchases). It is possible that RBFF may be able to provide advice or assistance to agencies whose online licensing systems require improvements or refinements.

- **About two-thirds of fishing license purchasers made their last license purchase at a bait store or sporting goods store (even among newer anglers—those who started within the previous 10 years—a bait store is the most common place of last purchase). These people are a target market, and these in-store purchasers are associated with being Latino; from the West region; in the lower income category; in the middle age bracket;**

**female; in the lower income category; from a small city or town; and without children in the household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**

Overall, 69% of license purchasers bought their last license in a bait store or sporting goods store.

- **To encourage online license purchasing, emphasize the speed and ease of purchasing. These are the top reasons for preferring online fishing license purchasing.**

Those who prefer online purchasing give high ratings to the speed and ease of the purchase as reasons for preferring online (with 79% saying its speed is *very* important and 74% saying its ease is *very* important).

- **Of the four possible renewal options examined in the survey, the most popular would be an email reminder that includes a link to the license purchase webpage. This produced the highest likelihood of encouraging a license purchase.**

The most popular renewal method asked about was an email reminder that includes a link to the license purchase webpage. In the middle tier were a phone app that allows purchase of a license, and a phone text reminder that includes a link to the purchase webpage. There was much less interest in an auto renewal service connected to a credit card, although this may be the most efficient and effective (in that it is guaranteed) renewal method and should always be an option.

- **Target females; those living in the Northwest region; those in the higher income category; those in the middle age group; and residents of suburban or rural areas for the renewal method of an email reminder that includes a link to the license purchase webpage. They had the strongest association with saying this would make them likely to renew their license. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For reaching those who would be very likely to renew their license through an app on their phone, target the following groups: Latinos; residents of suburban areas; those in the middle age group; those with children in their household; runners/joggers; and those with at least a bachelor's degree. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **To reach those who would be very likely to renew their license through a phone text reminder that includes a link to the license purchase webpage, target the following groups: Latinos; those with children in the household; those in the higher income category; younger people; boaters; and residents of the West region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For reaching those who would be very likely to renew their license through an auto renewal service attached to their credit card, target these groups: residents of large cities/urban areas; younger people; blacks/African-Americans; those having a household income in the higher category; runners/joggers; those having at least a bachelor's degree; and residents of suburban areas. (Note that the characteristics listed**

above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

- **To assist in any renewal efforts, RBFF should continue to guide agencies on how to better capture the email addresses of license purchasers (as well as R3 program participants)—valid email addresses are essential for tracking and long-term follow-up, and not every state is capturing emails to the fullest extent possible.**

RBFF should consider encouraging states to offer incentives to program participants and license purchasers in exchange for valid email addresses. Many people are inclined to provide fake or deliberately misspelled email addresses when prompted to volunteer such information on forms; but a guarantee of coupons, discounts, or fishing reports offered exclusively through email could help states compile larger and more complete databases of email addresses.

- **To assist potential online buyers of licenses who may have trouble determining which license is best for them, agencies should consider setting up a short “questionnaire” online that steers potential buyers into the correct license for them. Anglers would then be more assured that they were getting the appropriate license.**

This study found that a substantial number of people felt that license purchasing was confusing, as some states offer a large number of licenses.

- **Finally regarding licenses, agencies should consider moving to a model in which everyone who goes fishing must possess a license, no matter the age or exemption.**

Mandatory licenses should be required of all. While licenses should remain free for youth and some senior participants, the simple act of obtaining and possessing the license would help reinforce the concept of always having a license to fish. Consider that around a third of Latinos and blacks/African-Americans who fished in the past 5 years did not purchase a license (whether out of lack of information, disregard for the law, or an exemption of some kind)—this recommendation could help bring down these problematic percentages. Finally, at some point, all state fish and wildlife agencies are going to have to confront the fact that free licenses for senior citizens is probably not a sustainable model as the nation’s demographics shift with more individuals in society being older than younger and more people living much longer and continuing to fish well after they might not have when free fishing licenses for seniors was first conceived, which at the time was a demographically sustainable model.

## **HEARING AND SEEING INFORMATION ABOUT FISHING**

- **Know that, other than friends/family/acquaintances, the most common sources of information about recreational fishing are news and entertainment media and magazines and newspapers (including magazine and newspaper websites). Use these sources, when possible, to disseminate information.**

- **Another source to continue to focus on is social media—the next most common source of information about recreational fishing. To the extent possible, RBFF should encourage agencies to fully engage with current and prospective anglers via social media. The social media page also needs to be updated (or posted on) frequently so as to not become stale.**

In the survey, Facebook dominated in social media, although YouTube and Instagram were sources of information about recreational fishing, as well. In the focus groups of professionals, there was discussion that it is essential for agencies to control the social media conversation on official agency channels by maintaining a consistent presence to answer questions, raise awareness of opportunities and resources, and correct misperceptions. Agencies should not shy away from using social media for fear that the negatives may outweigh the positives.

Additionally, in the consumer focus groups, many people described their use of social media to plan recreation and trips. TakeMeFishing.org already has a well-established Facebook page and shares useful resources for the information participants seek most, such as where to fish or what family events are being offered. However, not everyone is aware of the website, nor the Facebook page. Bolstering interaction with those on Facebook who are looking for such information may be an effective means of increasing viewings and sharing information.

There were discussions in the consumer focus groups regarding what agencies could do on their social media platforms. In addition to the informative posts on the TakeMeFishing Facebook page, consider asking questions on social media to start a conversation. For example, “We’ll be fishing on Lake Michigan this weekend. Where will you be?” or “Share a photo from your fishing trip this weekend.” Also consider starting and providing early administration for Facebook groups in specific locations to promote fishing in that area, such as Chicago where many Millennials did not know where to fish or how to access Lake Michigan. Once the group is active and well-established, interaction may not need as much administration from RBFF and may continue independently with local residents sharing information about how and where to fish. Increasing interaction will foster growth and result in increased shares, thereby increasing distribution of information needed to help people start fishing.

- **RBFF should continue to encourage states to use social media to communicate with and market to under-represented audiences.**

Beyond prepared marketing materials such as print advertisements and television spots (which take substantial planning and development in terms of layout and content), social media platforms such as Facebook and Instagram are cost-effective ways for agencies to depict diversity in anglers. Using social media to reinforce the presence of women, youth, and minority groups in fishing will help to curb the stereotype of fishing as an activity for older, white, rural males.

- **Efforts to address negative content about fishing on all of the above sources is important, as about half of people are seeing things, at some times, that are negative about fishing (although, fortunately, content is mostly positive).**

Regardless of the source (with an exception), about half of the people who heard/saw information on the given source indicated in the survey that the information was not wholly positive (although mostly positive). The exception is the information disseminated by retailers and agencies, which seek to spur participation and would presumably not

counterproductively belittle fishing. More research should be conducted to learn exactly what types of negative information are being disseminated.

## **FAMILIARITY WITH STATE AGENCY WEBSITES**

- **The most important types of information on the state agencies' websites are license/permit/tag information, regulations and season dates, and fishing locations. About a quarter of U.S. residents are very or somewhat familiar with their state agency's website, and these are the things they were seeking on the site. Access, in particular, is important given that access is an oft-mentioned problem and has the potential to become more of a problem with increasing urbanization.**

## **OUTREACH IN GENERAL**

- **Agencies should increase their marketing of TakeMeFishing.org and emphasize the valuable information resources it provides for getting started fishing.**

TakeMeFishing.org already addresses so many of the concerns and constraints expressed by participants in the consumer focus groups, such as learning how to fish, finding where to fish, how to obtain a fishing license, and accessing instructional and supportive videos for fishing. A problem is that many focus group participants, even experienced anglers, had never heard or used the website prior to group discussion. After hearing a brief description of the site, many participants expressed support, interest, or enthusiasm for the site. TakeMeFishing.org is a valuable resource for current and potential anglers, it just needs to be brought to their attention. Agencies should consider expanding and further targeting current marketing efforts. The general population needs to know about this resource, as it is uniquely designed to bridge the gap from interest to participation in fishing.

- **A free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and so forth would be a good source for disseminating outreach.**

There was some interest expressed in a free phone app that would provide information on where to fish, what's biting, local events, licenses needed, license purchasing, and other topics: 22% indicated being very likely to use such an app, and another 15% were somewhat likely to use such an app (a sum of 37%).

- **A not insubstantial percentage of residents had watched online videos to learn about fishing (16% had done so). For targeting, those groups most likely to watch online videos are blacks/African-Americans; those 18 to 34 years old; boaters; males; those with children in their household; those who engage in other outdoor recreation in addition to motorized boating; and those living in a large city/urban area. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **About 1 in 5 U.S. residents tried other self-teaching methods (other than online videos). For targeting, know that males and younger people are more likely than their counterparts to do other self-teaching methods.**

Self-teaching methods are more often done by males (31%) than females (9%), and they are more often done by younger people than older people (26% of those 18 to 34 years old, compared to 19% of those 35 to 54 years old and 18% of those 55 years old and older).

- **For recruitment, outreach needs to go beyond the fishing digest/fishing regulations booklet or the agency website, as these are used by the people that the agencies are already reaching. To reach new potential anglers, outreach needs to go beyond agencies' already-served market.**

## **OUTREACH TO UNDER-REPRESENTED GROUPS**

- **RBFF should continue to help states promote fishing to females, Latinos, youth, and urban residents—many states acknowledge these groups as being among the most important demographic segments for outreach and specialized angler R3 programs.**

As discussed in the professional focus groups, RBFF could be especially impactful in helping states select the appropriate imagery and messages with which to target these groups, as well as potential industry and NGO partnerships to support marketing and R3 efforts. As part of this, RBFF should also continue to develop specialized campaigns and initiatives that address the changing demographics of the country (the Vamos A Pescar™ initiative is an important model).

- **Continue to use images of youth, family, social groups, under-represented demographic groups, and targeted groups in marketing.**

Consumer focus group discussions occasionally revealed the perception that fishing is a quiet, solitary activity composed primarily of older, white men. While fishing R3 efforts have clearly incorporated a larger array of imagery that encompasses many different ages, demographics, and situations, the research indicates that R3 marketing efforts should continue to do so. Images of youth, family, and friends depict much of the outdoor recreation participation experiences of focus group participants. Incorporating under-represented demographic groups and some of the targeted groups, such as Millennials and Latino families, will continue to make the marketing more personal and applicable for those audiences.

## **MENTORING AND BEING MENTORED**

- **Anglers are engaging in mentoring, and those most likely to mentor are rural residents; older residents; males; boaters; campers; residents of the Southeast region; residents of small cities/towns; and those with children in their household. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.) Target these audiences with outreach and programs that encourage and assist mentoring.**

Active and sporadic anglers were asked the question: 65% said that they had taught someone to fish. Most commonly, those whom the mentors had taught were their sons (57% of those who taught others) or daughters (48%).

- **The concept and image of mentoring should not be just portrayed as an adult teaching a child to fish. While this is the traditional image of mentoring, it does not need to be limited in this way or portrayed only in this way. Adults can teach other adults. Children could even teach adults in some instances. This concept of various mentoring scenarios other than the traditional mentoring scenario should be incorporated into images and communications efforts when discussing the importance of mentoring to the future of fishing in America. This nontraditional mentoring relationship—kids**

**mentoring adults or friends mentoring friends in their own peer group—could be the basis for a national campaign or theme for a campaign.**

About a quarter of mentors indicated teaching a non-family member. This latter type of mentoring may become more important in coming years to recruit people into fishing in a non-traditional way.

- **Provide and emphasize basic information with the assumption that beginners need assistance with every aspect of fishing.**

Focus group participants clearly perceive lack of information and knowledge to be one of the most important obstacles to fishing participation. As mentioned previously, TakeMeFishing.org is an incredibly valuable resource for overcoming this obstacle. However, it is worth emphasizing how little some non-anglers know about fishing, regardless of interest level. For example, confusion arose in one focus group in response to use of the term “angler.” A couple participants did not know that “angler” referred to someone who fishes. Some focus group participants also did not know a fishing license is required to fish recreationally. Quite a few focus group participants in Chicago, which is located on the shore of Lake Michigan, do not know where to go to fish or if one can fish on Lake Michigan at all. Even some focus group participants who had fished as children admitted that they do not have much knowledge as adults regarding licensing or where to fish.

Efforts to inform and motivate cannot take for granted that targeted audiences have knowledge of basic terminology or processes involved in fishing. To reach out to those who have little to no experience in fishing, the assumption should be that beginners need assistance with every aspect of fishing, such as how to obtain a license, where to fish, how to access or travel to a fishing location, and more.

- **Set new participants up for early success in fishing, which provides confidence and motivation to continue learning and participating.**

In the consumer focus groups, discussions included suggestions for fun and easy fishing events for kids, particularly ones that nearly guarantee a catch, as well as memories of first catches that sparked excitement. Given the perceptions that fishing is boring and too difficult, providing opportunities for early success in the form of a catch may provide success and encourage interest that will foster continued participation. As one focus group participant aptly observed, “Success builds confidence.”

## **PURCHASE OF FISHING EQUIPMENT**

- **Outreach for fishing equipment purchase—when targeting those who are already most likely to purchase fishing equipment—should be directed towards those who participate in boating (particularly motorboating); participate in camping; have children in the household; live in a rural area; are in the middle age category; participate in bicycling and hiking; are male; and live in the Midwest region. (Note that the characteristics listed above are not meant to describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)**
- **For attempting to reach those who purchase equipment online, note that the following characteristics are associated with those who purchase new fishing equipment online: participation in motorboating; participation in camping; having children in the household; being male; going paddling or floating; participation in running or jogging; and participation in hiking. (Note that the characteristics listed above are not meant to**

describe a single person; rather, the analysis examined discreet groups defined by the given characteristic.)

- **When trying to influence equipment purchasing, note that those things with the most influence on equipment purchase decisions are recommendations from friends/family, help from sales associates, and customer reviews, in that order.**

The survey looked at the importance of various things in influencing purchase decisions. Recommendations from other people were high on the ranking. A large majority of fishing equipment purchasers said that recommendations from friends/family, help from sales associates, and customer reviews were *very* or *somewhat* important in their purchasing decisions.

### **PARTNERSHIPS WITH NON-GOVERNMENTAL ORGANIZATIONS (NGOs)**

- **To the extent possible, RBFF should help agencies identify new opportunities for NGO/industry partnerships and nurture existing partnerships to leverage resources for R3 programs and initiatives.**

With limited agency budgets for marketing and outreach initiatives, partnerships with tourism and travel bureaus may help promote state fishing opportunities, while partnerships with industry groups or commercial retailers could facilitate enticing discounts on equipment or group events. While there were some mild concerns among a few professional focus group participants about the profit-driven nature of retailers, the general consensus throughout the discussions was that partnerships are highly beneficial to angler R3 efforts.

### **R3 PROFESSIONALS' ATTITUDES TOWARD RBFF AND ITS SERVICES**

- **RBFF should help states make it as easy as possible for people to go fishing—recognize the importance of convenience to Millennials and Generation Z.**

To recruit new anglers and retain casual anglers, agencies should strive to provide (and RBFF should help to encourage) the most convenient possible path to try fishing. Agencies should make the experience of buying a license and looking for a place to fish as straightforward as possible to avoid frustrating those who are new to fishing or new to a state. Making it as easy as possible to find the appropriate license, gear, and local fishing information will encourage people to try fishing over other activities. This was discussed extensively in the focus groups of professionals.

- **RBFF should consider offering a more regionally and geographically diverse selection of stock photos for agency marketing campaigns—the professional focus group discussions suggest that, while R3 professionals value these photos, images are most effective when they are relevant to the geographic surroundings of the recipient.**

Some R3 professionals felt that marketing photos that are not specific to the general landscape of the recipient would fail to resonate and achieve the intended effect. RBFF should strive to provide an array of regionally diverse marketing photos for use by the states.

- **RBFF should consider extending the timeline of its grant cycle for states.**

RBFF's grant program is highly valued; the only recurring criticism relates to the perceived compressed timeline of the grant cycle for project implementation, completion, and reporting. A longer timeline would allow states more flexibility in planning and executing projects. This was discussed extensively in the focus groups of professionals.

➤ **RBFF should maintain its current general approach to working with the states.**

In the focus groups of professionals, RBFF was repeatedly praised for being easy to work with, for providing useful marketing templates and other resources, and for the ability of its staff to build productive working relationships with state R3 coordinators—many participants commended RBFF for taking the time to get to know agency personnel and for working to understand each state’s unique R3 situation (according to one R3 professional, “[With RBFF], it’s like someone gets you, like they’re on your side”).

➤ **Collectively the qualitative and quantitative research conducted for this study indicate that the efforts of RBFF to increase awareness of and participation in fishing in the U.S. is on the correct trajectory. There are some additional efforts as outlined in this report that can be initiated and some programs tweaked to further enhance these efforts, but by all measures RBFF is on the right course. RBFF, however, cannot accomplish its mission alone, and the penultimate recommendation of this study is a call for the state fish and wildlife agencies to increase efforts to implement the products and programs developed by RBFF. This can only be accomplished through reallocation of resources to support effective R3 efforts. In short, increased state involvement in implementation is critical in reaching the collective goals of keeping fishing relevant in a changing America.**

#### **ASSOCIATION OF FISH AND WILDLIFE AGENCIES (AFWA) PRESIDENT’S TASK FORCE ON ANGLER R3**

- **The final recommendation is to use the recommendations contained in this referenced report (AFWA, 2018). Many of the recommendations in that report produced by AFWA’s task force dovetail with the collective recommendations contained in this report, particularly in the bullet immediately above. Indeed, its list of the five most salient recommendations from the report are as follows:**
- 1. Commit to developing an angler R3 plan that identifies desired outcomes and objectives.**
  - 2. Commit to reallocation of sufficient agency resources (staff and funding) to ensure that initiatives to recruit, retain, and reactivate anglers can be successful.**
  - 3. Commit to establishing a full-time Angler R3 Manager.**
  - 4. Commit to Customer Relationship Management (CRM). Develop a complete system/database (electronic or other mechanism) to track and communicate with all agency customers.**
  - 5. Commit to establishing a repository/clearinghouse where state agencies can share angler R3 efforts to include programs that were a success, as well as those that did not achieve the desired results, so that successful R3 efforts can be replicated.**

## **7. METHODOLOGY**

Two major types of research were used to develop this final report: surveys and focus groups. The first type of research is quantitative, while the second is qualitative. Using the two types of research together allows for both breadth of analyses (surveys) as well as depth of analyses (focus groups), providing a full picture of the relevance of fishing to United States residents. The two types of research are detailed below.

### **SURVEYS**

The survey phase of this overall project entailed a general population survey across the United States conducted by telephone as the primary source of survey data. A supplemental survey conducted online was used to allow for regional analyses so that the telephone and online surveys together obtained enough completed questionnaires so that each region had a robust number in the sample. An additional supplemental survey was used to obtain samples of blacks/African-Americans, Latinos, and Asian-Americans for a look at those populations.

#### **Use of Telephones for the Primary Survey**

For the primary survey, telephones were selected as the preferred sampling medium because of the almost universal ownership of telephones among the general population. In this telephone survey, both landlines and cell phones were called in their approximate proportions that they are used in the United States.

#### **Questionnaire Design**

The telephone survey questionnaire was developed cooperatively by the research team of Responsive Management and RBFF, based on the research team's familiarity with fishing, outdoor recreation in general, and natural resources. Responsive Management conducted pre-tests of the questionnaire to ensure proper wording, flow, and logic in the survey.

Based on the primary telephone survey, an online questionnaire that mirrored the telephone questionnaire was developed by Responsive Management for the supplemental surveys. This online survey contained the same questions as the telephone survey and followed the same general skip pattern (i.e., the flow that dictates when follow-up questions are warranted and which questions are asked of which respondents based on when they last fished, if ever, and how much they fish now).

#### **Survey Samples**

The sample for the primary telephone survey was obtained from SSI, a firm that specializes in providing scientifically valid samples for survey research. The overall sample was made up of two separate samples, one of landlines and a second of cell phones, and they were called in their proper proportions to match the proportions of cell and landline telephones in each state. The samples used a probability-based selection process that ensured that each eligible respondent had an approximately equal chance of being selected for the survey.

#### **Telephone Interviewing Facilities**

A central polling site at the Responsive Management office allowed for rigorous quality control over the telephone interviews and data collection. Responsive Management maintains its own in-house telephone interviewing facilities. These facilities are staffed by interviewers with

experience conducting computer-assisted telephone interviews on the subjects of outdoor recreation and natural resources.

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 the primary 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.

### **Telephone Interviewing Dates and Times**

Telephone surveying times are Monday through Friday from noon 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 this primary 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 primary telephone survey was conducted in November and December 2018.

### **Telephone Survey Data Collection and Quality Control**

The software used for data collection in the telephone survey was Questionnaire Programming Language (QPL). The telephone 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 Center Managers and statisticians monitored the data collection, including monitoring of the actual telephone interviews without the interviewers' knowledge, to ensure the integrity of the data. The survey questionnaire itself contained error checkers and computation statements to ensure quality and consistent data. After the telephone surveys were obtained by the interviewers, the Survey Center Managers and/or statisticians checked each completed survey to ensure clarity and completeness. Responsive Management obtained 1,071 completed interviews by telephone in the primary survey.

### **Supplemental Surveys**

Two supplemental surveys (but both using the same online survey questionnaire) were administered. One was administered to a general population sample, stratified by region so that each region had enough sample for data analyses. In any overall results, the regions were weighted so that the overall sample was representative of the United States as a whole.

The second supplemental survey, targeted to specific groups, was conducted to obtain data from blacks/African-Americans, Latinos, and Asian-Americans. The data from this targeted group supplemental survey were not added to the general population data but were kept separate in the analyses of the survey data; however, the results of both the primary survey and supplemental

targeted group surveys were considered in the development of the recommendations and action items contained in this report.

The supplemental surveys were administered using samples from SSI and were administered through SSI's online survey platform. In the regional supplemental survey, 1,782 completed surveys were obtained, and in the targeted group survey, 1,542 completed surveys were obtained (536 of blacks/African-Americans, 503 of Latinos, and 503 of Asian-Americans). For the overall general population data, the telephone surveys and supplemental regional surveys were put together, for a final sample size of 2,853 for the general population survey.

### **Analysis of Survey Data**

The analysis of survey data was performed using IBM SPSS Statistics as well as proprietary software developed by Responsive Management. The general population results were weighted by demographic characteristics, geographic characteristics, and surveying mode so that the general population sample was representative of U.S. residents as a whole.

### **FOCUS GROUPS**

One set of focus groups was conducted among “consumers,” which consists of those from among the general population that met certain criteria for the groups. The second set of focus groups was conducted among “professionals,” which consists of fish and wildlife agency personnel, particularly those involved in R3 programs. Specific information about focus groups in general is provided below, as well as information about the two very different sets of focus groups conducted for this project.

#### **Focus Group Methods in General**

Focus groups entail in-depth, structured discussions with small groups (typically between 6-12 individuals) about their opinions regarding various aspects of the subject under study—in this case fishing and outdoor recreation, as well as regarding methods for recruiting, retaining, and reactivating anglers throughout the country. The use of focus groups is an accepted research technique for the qualitative exploration of attitudes, opinions, perceptions, motivations, constraints, and behaviors. Focus groups provide researchers with understanding and insights of the thought processes of the participants in the group discussions.

Focus groups allow for extensive open-ended responses to questions; probing, follow-up questions; group discussion; and observation of emotional responses to topics—aspects that cannot be measured in quantitative surveys. Qualitative research sacrifices reliability for increased validity. This means that, although these focus group findings could not have been replicated statistically as a survey could have been (high reliability), they provided a more nuanced understanding of the issues surrounding fishing participation and R3 efforts associated with fishing (high validity).

The focus groups were conducted using discussion guides (discussed in more detail further on) that allowed for consistency in the data collection. Each focus group was moderated by one of Responsive Management's trained moderators. The moderators, through the use of the discussion guide, kept the discussions within design parameters without exerting a strong influence on the discussion content. In this sense, the focus groups were non-directive group discussions that exposed the spontaneous attitudes, insights, and perceptions of the focus group participants.

All focus group discussions were recorded for later analysis. To ensure unbiased opinions, it was not revealed to participants in the “consumer” groups that the research was being conducted on behalf of RBFF. In the focus groups of professionals, the participants were aware that the research was being conducted for RBFF.

### **Focus Group Coordination**

The focus groups of consumers were conducted in geographically dispersed locations around the country: Chicago, Houston, Austin, Tampa, Seattle, and Virginia Beach. The Chicago group included only millennial participants; the Houston and Austin groups were composed of Latinos; the Tampa group was composed of Latino adults who were active in outdoor recreation; and the Seattle and Virginia Beach groups included a random selection of adults who were active in outdoor recreation activities.

Responsive Management coordinated with each host facility to ensure that each focus group room was set up appropriately for maximum interaction and that each room had adequate seating. In addition, Responsive Management and the facilities ensured that the recording equipment was properly set up and in working order. Dinner was provided for focus group participants.

There were four focus groups of professionals: one each for the Southeast Association of Fish and Wildlife Agencies region, the Northeast Association of Fish and Wildlife Agencies region, the Midwest Association of Fish and Wildlife Agencies region, and the Western Association of Fish and Wildlife Agencies region. The focus groups included professionals from fish and wildlife agencies from each region, particularly those who work on angling R3 and have insight into the needs of angling R3 programs. These focus groups were conducted via telephone conference but represented geographically dispersed regions around the country. Responsive Management coordinated with RBFF and used an online meeting scheduler to determine times in which the largest number of agency professionals could participate in the focus groups.

### **Focus Group Participant Recruiting for the Consumer Groups**

Focus group participants were recruited by Responsive Management with assistance from the host facilities. Staff from the host facilities contacted randomly selected area residents that fit demographic criteria to give them a brief summary of the focus group topic, to administer a short screener questionnaire to determine the residents’ eligibility for participation, and, if qualified and interested, to schedule the residents for attendance. Responsive Management developed the recruiting screener so that the list of questions asked of each potential respondent defined the criteria for each focus group. Responsive Management carefully reviewed the criteria with the host facilities.

To participate in the focus groups, the residents had to be at least 18 years old and not employed by a marketing, advertising, or communications-related business or any state or federal agency. An effort was made to recruit participants ranging in age from 18 to 60 years old, except when a particular age was the criteria for the group, as in the Chicago, Illinois focus group. Respondents were asked about their participation in outdoor recreation. A respondent’s ability to articulate their opinions was also assessed when selecting participants.

Responsive Management maintained contact with qualified, interested individuals as needed and provided confirmation that included the date, time, and location of the focus group, as well as a

map and directions to the focus group facility. To encourage participation, a monetary incentive was given to participants.

During the recruiting process, the host facilities frequently provided Responsive Management with progress tables for each focus group that included participant names, addresses, contact telephone numbers, and essential participant characteristics. Responsive Management carefully reviewed each status update to ensure that each new recruit met the criteria. Each focus group's target was approximately 8-12 people. Reminder calls and interaction with potential participants prior to the groups helped ensure their attendance, resulting in quality participation. The focus groups were conducted in early 2019.

### **Focus Group Participant Recruiting for the Professional Groups**

Focus group participants for the professional groups were recruited by Responsive Management in coordination with RBFF. To start, RBFF compiled the initial pool of potential participants from which Responsive Management then contacted and recruited individuals to take part in the groups. An initial email that included a detailed overview of the project and a link to an online scheduling tool was sent to potential participants; Responsive Management then determined the dates and times of each group based on the majority preference among individuals in each region. Each group's participation target was approximately 5-7 people. Reminder emails and interaction with potential participants prior to the groups helped ensure their attendance, resulting in a high level of participation. The focus groups were conducted in March and April 2019.

### **Focus Group Discussion Guides**

Each focus group was conducted using a discussion guide that allowed for consistency in the data collection. The discussion guides include questions that elicit expansive responses (rather than simple yes-no questions) about the various topics of interest. The guide includes all of the topics to be covered, with the order of items laid out with some thought on discussion flow. Note, however, that any pertinent discussion, even if not in the order in the discussion guide, is allowed to flow spontaneously. In these situations, the moderator can then go back to cover any topics that were skipped.

### **Analysis of the Focus Groups**

Responsive Management conducted qualitative analyses of the focus groups in three phases. The first phase was the direct observation of the discussions by the moderators and their subsequent notes immediately after the focus groups. The second phase of the analysis consisted of transcriptions of the discussions and review of the recordings and transcriptions by other researchers. The development of findings into the report itself entailed the third phase of the focus group analysis.

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## ABOUT RESPONSIVE MANAGEMENT

Responsive Management is an internationally recognized survey research firm specializing in attitudes toward natural resource and outdoor recreation issues. Our mission is to help natural resource and outdoor recreation agencies, businesses, and organizations better understand and work with their constituents, customers, and the public.

Since 1985, Responsive Management has conducted telephone, mail, and online surveys, as well as multi-modal surveys, on-site intercepts, focus groups, public meetings, personal interviews, needs assessments, program evaluations, marketing and communication plans, and other forms of research measuring public opinions and attitudes. Utilizing our in-house, full-service survey facilities with 75 professional interviewers, we have conducted studies in all 50 states and 15 countries worldwide totaling more than 1,000 projects.

Responsive Management has conducted research for every state fish and wildlife agency and most of the federal resource agencies, including the U.S. Fish and Wildlife Service, the National Park Service, the U.S. Forest Service, the Bureau of Land Management, the U.S. Coast Guard, and the National Marine Fisheries Service.

We have also provided research for many nonprofit and nongovernmental organizations, including the National Wildlife Federation, the National Shooting Sports Foundation, the National Rifle Association, the Archery Trade Association, the Izaak Walton League, the Rocky Mountain Elk Foundation, Ducks Unlimited, SCI, and Dallas Safari Club. Other nonprofit and NGO clients include Trout Unlimited, the Sierra Club, the American Museum of Natural History, the Ocean Conservancy, the National Association of State Boating Law Administrators, and the BoatUS Foundation.

Responsive Management conducts market research and product testing for numerous outdoor recreation manufacturers and industry leaders, such as Winchester Ammunition, Trijicon, Yamaha, and others.

Responsive Management also provides data collection for the nation's top universities, including Auburn University, Clemson University, Colorado State University, Duke University, George Mason University, Michigan State University, Mississippi State University, North Carolina State University, Oregon State University, Penn State University, Rutgers University, Stanford University, Texas Tech, University of California-Davis, University of Florida, University of Montana, University of New Hampshire, University of Southern California, Virginia Tech, West Virginia University, and many more.

Our research has been upheld in U.S. Courts, used in peer-reviewed journals, and presented at major wildlife and natural resource conferences around the world. Responsive Management's research has also been featured in many of the nation's top media, including *Newsweek*, *The Wall Street Journal*, *The New York Times*, CNN, and on the front pages of *The Washington Post* and *USA Today*.

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