



**Market Research to Better Understand the
Directional Relationship Between Recreational
Boating and Fishing Participation**

National Survey Final Report

**Prepared by Market Strategies, Inc. for the Recreational
Boating and Fishing Foundation**

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Revised**

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Attachment A: Final Questionnaire

Attachment B: Data Tables

I. INTRODUCTION

It is imperative that the Recreational Boating and Fishing Foundation (RBFF) try to incorporate the needs of both the boating and fishing constituents into its strategic business planning. This market research project was intended to benefit both recreational boating and fishing. A major goal of the research was to test the RBFF's current assumption that fishing leads to boating and to determine if the contrast is applicable – that is, that boating leads to fishing. With the results from this research project, the RBFF will be able to base its strategies on current, reliable qualitative and quantitative information. This will assist the organization in ensuring that the application of its limited resources is targeted to create the greatest impact for the majority of stakeholders.

This imperative is influenced by a number of factors:

- The original *Water Works Wonders* national advertising campaign was re-branded to *Take Me Fishing* in 2004 because the former brand was under performing and ambiguous. This change has resulted in the unintended consequence that some boating stakeholders believe the RBFF has “abandoned” them.
- RBFF's perception is that its boating constituency is experiencing a distancing and is of the opinion that the RBFF considers boating as secondary to fishing. RBFF's boating constituents are increasingly questioning the notion that a focus on growing fishing participation and avidity will result in greater benefits for boating or stewardship in contrast to approaching fishing from boating or stewardship directions.

As a result, the RBFF implemented a research agenda to better understand the relationship between recreational boating and fishing and the progressions that those relationships take in relation to each other. To carry out this agenda, the RBFF entered into an agreement with Market Strategies, Inc. (MSI) to conduct a three-phase research project. Phases 1 and 2 involved qualitative market research – in-depth interviews with a number of RBFF Board members and focus groups with boaters and anglers, respectively. Phase 3 involved quantitative market

research – a national random digit dialing (RDD) telephone survey. Each phase of the research informed the next by providing insights, new hypotheses, and understanding.

This report describes Phase 3 of the research – the national survey.

II. EXECUTIVE SUMMARY

A. Purpose

The purpose of the third phase of this project was to collect nationally representative data on the directional relationship between recreational boating and fishing participation. The current research was designed to provide insight into several over-arching research questions that include the following:

- What is the size of the market for Boaters Only and Anglers Only?
- What is the likelihood, or interest, of Anglers Only and Boaters Only taking up fishing from a boat?
- What are the benefits and drawbacks associated with the potential to attract Anglers Only to fish from a boat?
- What are the benefits and drawbacks associated with the potential to attract Boaters Only to fish from a boat?
- What are the factors that facilitate the transition from fishing only and boating only to fishing from a boat?
- What is the demographic profile of those Anglers Only and Boaters Only who are most likely to adopt fishing from a boat?
- What is the profile of those who currently fish from a boat?

To address these research questions, the survey collected data on market segment size, early experiences with fishing, current fishing participation, early experiences with boating, current boating participation, boat ownership, the directional relationship between recreational boating

and fishing, stewardship, and demographics. Data from the survey provide a solid benchmark that RBFF can use to inform its strategic decision-making moving forward.

The questionnaire for the national survey built upon the results of the in-depth interviews and focus groups conducted in phases 1 and 2 of this project (findings from the first two phases are described in separate reports). In particular, findings from the focus groups were used to develop questionnaire items for the national survey.

B. Key Findings

- National estimates of market size were 13,732,756 for the Boaters Only market segment, 16,611,939 for the Anglers Only market segment and 25,084,696 for the Anglers + Boaters market segment.
- Interest in taking up fishing from a boat and the likelihood of going fishing from a boat in the next 12 months was greater for respondents in the Anglers Only group than respondents in the Boaters Only group, making the market potential greater for Anglers Only.
- Potential benefits associated with attracting Anglers Only to fish from a boat include high levels of interest in fishing from a boat and high ratings of likelihood of fishing from a boat in the next 12 months. In addition, Anglers + Boaters report higher levels of expenditures on fishing equipment, higher levels of boat ownership and higher ratings of likelihood to purchase a boat in the next 12 months than do Anglers Only.
- Potential drawbacks associated with attracting Anglers Only to fish from a boat included a variety of perceived barriers. The top three cited by Anglers Only were being scared of the water, having other hobbies/interests they enjoy more and thinking fishing from a boat is boring.

- Potential benefits associated with attracting Boaters Only to fish from a boat include moderate levels of interest in fishing from a boat and moderate ratings of likelihood of fishing from a boat in the next 12 months. In addition, Anglers + Boaters report higher levels of expenditures on boating accessories, higher levels of boat ownership and higher ratings of likelihood to purchase a boat in the next 12 months than do Boaters Only.
- Potential drawbacks associated with attracting Boaters Only to fish from a boat included a variety of perceived barriers. The top three cited by Boaters Only were thinking fishing from a boat is boring, not having enough time and having other hobbies/interests they enjoy more.
- A major factor facilitating the transition from fishing only and boating only to fishing from a boat is early experience with both activities, usually in a family context. A large percentage of respondents who identified themselves as Anglers Only or Boaters Only reported that they first became involved in these recreational activities at an early age, were introduced to the activity by a family member, and are now somewhat to extremely interested in going fishing from a boat.
- There was a trend for respondents with higher levels of fishing and boating avidity (as measured by number of times fished or boated) to express higher levels of interest in fishing from a boat, be more likely to fish from a boat in the next 12 months and be more likely to own a boat.
- About one-third of respondents who currently own a boat own multiple boats and have owned other boats in the past.
- The majority of all past boats owned are outboards.
- The mean length of the boat in feet gets shorter as the number of current boats owned increases. The reverse trend is found for past boats owned.

- The majority of all current and past owned boats are made of fiberglass or plastic.
- Participation in both recreational boating and fishing starts at an early age, with participation in fishing starting at a significantly earlier age than boating.
- Family involvement is a key factor to both initial exposure and ongoing participation in recreational boating and fishing.
- Significantly more respondents do not currently own a boat than currently own a boat.
- For a significant majority of boat owners, the time between when they first started researching buying a boat and the time they bought their first boat was less than a year.
- Among boat owners, the most commonly cited reason they do not plan to buy another boat in the future was that their current boat meets all their needs. Other reasons included not being interested in buying another boat and not being able to afford another boat.
- Among respondents who have never bought a boat, the top three reasons they do not plan to buy a boat were the cost of a boat, not wanting to buy a boat and having access to a boat through a friend or family member.
- Significantly more Anglers + Boaters identify with being an angler than with being a boater. Similarly, respondents who participate in both activities spend significantly more time fishing than boating.
- Among Anglers + Boaters, a significantly greater proportion said that their past involvement in fishing influenced their getting involved in boating than said that their past involvement in boating influenced their getting involved in fishing.
- If forced to choose between the two activities, a significantly greater proportion of Anglers + Boaters would pick fishing than would pick boating.

- A significant majority of respondents believe their fishing and/or boating experiences had an important influence on how they look at the environment.

III. MAJOR FINDINGS

This section presents major findings from the national survey. Section III.A presents major findings related to the seven main research questions listed on page 3, Section III.B presents major findings on fishing and boating avidity, Section III.C presents major findings on boat ownership, Section III.D presents major findings on interest in fishing from a boat and Section III.E presents other major findings of interest. In addition to the descriptive findings, statistically significant results by market segment, avidity type and boat ownership are highlighted throughout the section.

Complete data tables for the national survey can be found in Attachment B. The tables include findings for each item in the questionnaire, relevant cross-tabulations with other questions for convenience of comparison, and statistical significance as noted.

A. Major Findings for the Seven Main Research Questions

Research Question 1: What is the size of the market for Boaters Only and Anglers Only?

Survey data were used to estimate the size of the Boaters Only and Anglers Only market segments. For the purposes of this survey these two market segments were defined as follows:

- *Boaters Only*: Boated at least one time in the past 12 months for recreational purposes, but not to fish, and has not fished in the past 12 months.
- *Anglers Only*: Fished at least one time in the past 12 months and has not boated in the past 12 months, either for recreational purposes or to fish.

Based on these definitions, 22.3% of survey respondents screened into the Boaters Only group and 29.6% screened into the Anglers Only group. The remaining 48.1% of respondents screened in as Anglers + Boaters (defined as having fished at least one time in the past 12 months and boated at least one time in the past 12 months, either for recreational purposes or to fish).

Survey data yielded national estimates of market size of 13,732,756 for the Boaters Only market segment, 16,611,939 for the Anglers Only market segment and 25,084,696 for the Anglers + Boaters market segment. These estimates are based on the U.S. adult population aged 18-70 who screened into the survey based on the market segment definitions. The estimates exclude recreational boating that is limited to the use of personal watercraft (e.g., jet skis).

Research Question 2: What is the likelihood, or interest, of Anglers Only and Boaters Only taking up fishing from a boat?

Interest in taking up fishing from a boat was mixed among respondents who participate in one activity but not both (i.e., the Anglers Only and Boaters Only market segments). Across these two groups, 29.2% said they were very interested or extremely interested in going fishing from a boat, 31.9% said they were somewhat interested and 38.9% said they were not very interested or not at all interested.

Interest in taking up fishing from a boat was greater for respondents in the Anglers Only group than respondents in the Boaters Only group. Among Anglers Only, 41.8% said they were very interested or extremely interested in going fishing from a boat compared to 12.5% of Boaters Only.

Not surprisingly, respondent ratings of interest in taking up fishing from a boat were related to their ratings of the likelihood of going fishing from a boat in the future. 78.5% of respondents in the Anglers Only and Boaters Only groups who indicated they were somewhat, very or extremely interested in taking up fishing from a boat said they were somewhat, very or extremely likely to go fishing from a boat in the next 12 months whereas only 21.6% said they were not likely or not at all likely to go fishing from a boat in the next 12 months. Among these same respondents, boat owners were significantly more likely than non-boat owners to say it was very likely or extremely likely that they would go fishing from a boat in the next 12 months.

Similar to the finding on interest, the likelihood of going fishing from a boat in the next 12 months was greater for respondents in the Anglers Only group than respondents in the Boaters

Only group. Among Anglers Only, 44.0% said they were very likely or extremely likely to go fishing from a boat in the next 12 months compared to 21.5% of Boaters Only.

Research Question 3: What are the benefits and drawbacks associated with the potential to attract Anglers Only to fish from a boat?

The benefits associated with attracting Anglers Only to fish from a boat include:

- Interest in fishing from a boat. Among Anglers Only, 29.5% indicated they were very interested in fishing from a boat and 12.3% indicated they were extremely interested in fishing from a boat.
- Likelihood of fishing from a boat in the next 12 months. Among Anglers Only, 26.9% indicated they were very likely to go fishing from a boat within the next 12 months and 17.1% indicated they were extremely likely to go fishing from a boat within the next 12 months.
- Early experience with fishing related to participation in both activities. Among respondents in the Anglers + Boaters group, the majority started as anglers with 51.3% reporting that they first participated in fishing compared to 14.6% who first participated in boating and 34.1% who started participating in both activities at the same time. Among those who started participating in fishing and boating at the same time, 48.7% said they primarily went boating to fish and 51.3% said fishing was one of several activities they did on a boat.
- Expenditures on fishing equipment. 14.1% of respondents in the Anglers + Boaters group reported that they spend over \$500 annually on fishing equipment compared to 4.6% of respondents in the Anglers Only group.
- Boat ownership. 54.3% of respondents in the Anglers + Boaters group currently own a boat compared to 27.0% of respondents in the Anglers Only group.

- Likelihood of purchasing a boat in the next 12 months. 7.9% of respondents in the Anglers + Boaters group who do not currently own a boat are actively shopping/researching boats and plan to purchase one within the next 12 months compared to 1.4% of respondents in the Anglers Only group.

The drawbacks associated with attracting Anglers Only to fish from a boat included a variety of perceived barriers. Respondents in the Anglers Only market segment who said they were not very interested or not at all interested in going fishing from a boat cited the following reasons for their lack of interest:

- Being scared of the water (18.5%)
- Having other hobbies/interests they enjoy more (13.4%)
- Thinking fishing from a boat is boring (10.9%)
- Cost (8.1%)
- Not having enough time (6.8%)
- Not owning a boat or knowing anyone who owns a boat (5.9%)
- Not having easy access to places to fish from a boat (3.2%)
- Having too many work or family obligations (3.9%)
- Not having anyone to fish from a boat with or no one ever asking you to go (3.2%)
- Spouse or significant other doesn't want you to go (1.1%)

Research Question 4: What are the benefits and drawbacks associated with the potential to attract Boaters Only to fish from a boat?

The benefits associated with attracting Boaters Only to fish from a boat include:

- Interest in fishing from a boat. Among Boaters Only, 7.4% indicated they were very interested in fishing from a boat and 5.1% indicated they were extremely interested in fishing from a boat.

- Likelihood of fishing from a boat in the next 12 months. Among Boaters Only, 15.3% indicated they were very likely to go fishing from a boat within the next 12 months and 6.2% indicated they were extremely likely to go fishing from a boat within the next 12 months.
- Expenditures on boating accessories. 19.1% of respondents in the Anglers + Boaters group reported that they spend over \$500 annually on boating accessories compared to 10.9% of respondents in the Boaters Only group.
- Boat ownership. 54.3% of respondents in the Anglers + Boaters group currently own a boat compared to 25.8% of respondents in the Boaters Only group.
- Likelihood of purchasing a boat in the next 12 months. 7.9% of respondents in the Anglers + Boaters group who do not currently own a boat are actively shopping/researching boats and plan to purchase one within the next 12 months compared to 3.9% of respondents in the Boaters Only group.

The drawbacks associated with attracting Boaters Only to fish from a boat included a variety of perceived barriers. Respondents in the Boaters Only market segment who said they were not very interested or not at all interested in going fishing from a boat cited the following reasons for their lack of interest:

- Thinking fishing from a boat is boring (37.0%)
- Not having enough time (16.1%)
- Having other hobbies/interests they enjoy more (13.0%)
- Not liking to touch or bait the fish (4.8%)
- Being scared of the water (3.9%)
- Not liking to fillet fish (3.4%)
- Having too many work or family obligations (2.7%)
- Not having anyone to fish from a boat with or no one ever asking you to go (2.7%)
- Not having easy access to places to fish from a boat (2.5%)

- No one ever taught you or showed you how to fish (1.5%)
- Cost (1.2%)
- You don't have equipment or the right equipment (0.5%)

Research Question 5: What are the factors that facilitate the transition from fishing only and boating only to fishing from a boat?

A major factor facilitating the transition from fishing only and boating only to fishing from a boat is early experience with both activities, usually in a family context. Findings on the importance of early experience that facilitate this transition include:

- A large percentage of respondents who identified themselves as Anglers Only or Boaters Only reported that they first became involved in these recreational activities at an early age. Among Anglers Only the average age of first involvement in fishing was 9.2 years and among Boaters Only the average age of first involvement in boating was 15.2 years.
- A large percentage of respondents who identified themselves as Anglers Only or Boaters Only were introduced to the activity by a family member. Among Anglers Only 87.1% were first introduced to fishing by a family member and among Boaters Only 59.9% were first introduced to boating by a family member.
- A large percentage of respondents who identified themselves as Anglers Only or Boaters Only are now somewhat to extremely interested in going fishing from a boat.

These as well as other major findings on early experiences with fishing and boating are presented in Section III.E under the headings “Early Experiences with Fishing” and “Early Experiences with Boating.”

Other factors that facilitate the transition from fishing only and boating only to fishing from a boat are covered under research objectives 3 and 4 in the discussion of benefits associated with attracting Anglers Only and Boaters Only to fish from a boat. They include interest in fishing

from a boat, likelihood of going fishing from a boat in the next 12 months, boat ownership and likelihood of purchasing a boat in the next 12 months.

Research Question 6: What is the demographic profile of those Anglers Only and Boaters Only who are most likely to adopt fishing from a boat?

Data on the demographic profile of Anglers Only and Boaters Only that are most likely to adopt fishing from a boat include the following:

- 57.7% of Anglers Only compared to 84.2% of Boaters Only who indicated they are very or extremely likely to go fishing from a boat in the next 12 months are employed full-time.
- 28.1% of Anglers Only compared to 55.6% of Boaters Only who indicated that they are very or extremely likely to go fishing from a boat in the next 12 months have graduated from college or have a post-graduate degree.
- 52.9% Anglers Only compared to 50.0% of Boaters Only who indicated they are very or extremely likely to go fishing from a boat in the next 12 months had a total household income in 2005 before taxes of between \$25,000 and \$75,000.
- 89.2% of Anglers Only compared to 94.4% of Boaters Only who indicated they are very or extremely likely to go fishing from a boat in the next 12 months reported that they are Caucasian.

Section III.D of this report presents the demographic profile of those Anglers Only and Boaters Only who are interested in fishing from a boat.

Research Question 7: What is the profile of those who currently fish from a boat?

- Demographic profile. Among respondents in the Anglers + Boaters market segment, the mean age was 41.3 years old. Nearly 7 in 10 (69.2%) are male and over two-thirds (67.8%) are currently married. Seventy-two percent are employed either full-time or part-time and about half (49.8%) reported a total household income in 2005 before taxes of between \$25,000 and \$75,000. A large majority (92.7%) reported their racial or ethnic background as Caucasian.
- Time spent participating in the two activities. Among respondents in the Anglers + Boaters group, 45.1% spend more time fishing, 27.6% spend more time boating, and 27.2% spend the same amount of time fishing and boating.
- Influence of past involvement in fishing on boating. 44.9% of respondents in the Anglers + Boaters group said their past involvement in fishing very much or extremely influenced their getting involved in boating. 23.6% said their past involvement in fishing somewhat influenced their getting involved in boating and 31.6% said their past involvement in fishing not very much or not at all influenced their getting involved in boating. Boat owners were significantly more likely than non-boat owners to report that their past involvement in fishing extremely influenced their getting involved with boating.
- Influence of past involvement in boating on fishing. 30.4% of respondents in the Anglers + Boaters group said their past involvement in boating very much or extremely influenced their getting involved in fishing. 20.9% said their past involvement in boating somewhat influenced their getting involved in fishing and 48.8% said their past involvement in boating not very much or not at all influenced their getting involved in fishing.
- Influence of boat ownership on fishing. 87.5% of those who currently own a boat said they would still fish if they didn't own a boat and 12.5% said they would not fish if they didn't own a boat, whereas 72.2% of those who currently own a boat said they would

own a boat or go boating if they didn't fish and 27.8% said they would not own a boat or go boating if they didn't fish.

B. Major Findings on Fishing and Boating Avidity

Fishing Avidity

Among respondents who have gone fishing in the past 24 months, they reported going an average of 33 times in that time period. These same respondents reported going fishing an average of 16 times in the past 12 months. In the Anglers + Boaters and Anglers Only market segments, boat owners reported going fishing significantly more times than non-boat owners both in the past 24 months and the past 12 months.

Table 1 below shows the relationship between frequency of fishing and interest in fishing from a boat. The trend was that respondents with higher levels of fishing avidity (as measured by mean number of times fished) were more likely to say that they were extremely interested in going fishing from a boat.

Table 1: Relationship Between Frequency of Fishing and Interest in Fishing from a Boat

How interested are you in going fishing from a boat?	Mean Number of Times Fished in Past 24 Months	Mean Number of Times Fished in Past 12 Months
Not at all interested	21	11
Not very interested	20	10
Somewhat interested	11	7
Very interested	13	7
Extremely interested	64	28

Table 2 below shows the relationship between frequency of fishing and the likelihood of going fishing from a boat in the next 12 months. Similar to the findings in Table 1, the trend was that respondents with higher levels of fishing avidity (as measured by mean number of times fished)

were more likely to say that they were extremely likely to go fishing from a boat in the next 12 months.

Table 2: Relationship Between Frequency of Fishing and Likelihood of Going Fishing from a Boat in the Next 12 Months

How likely would you be to go fishing from a boat in the next 12 months?	Mean Number of Times Fished in Past 24 Months	Mean Number of Times Fished in Past 12 Months
Not at all likely	15	9
Not very likely	8	5
Somewhat likely	8	4
Very likely	23	14
Extremely likely	55	23

Tables 3-6 show the relationship between frequency of fishing and various types (current and past) of boat ownership. The trend was that respondents with higher levels of fishing avidity (as measured by mean number of times fished) were more likely to own a boat.

Table 3: Relationship Between Frequency of Fishing and Current Boat Ownership

Current Boat Ownership	Mean Number of Times Fished in the Past 24 Months	Mean Number of Times Fished in the Past 12 Months
Own Boat	54	27
Do Not Own Boat	17	8

Table 4: Relationship Between Frequency of Fishing and Ever Owning Any Kind of Boat (Not a Current Boat Owner)

Ever Owned Any Kind Of Boat	Mean Number of Times Fished in the Past 24 Months	Mean Number of Times Fished in the Past 12 Months
Owned Boat	25	10
Never Owned Boat	14	8

Table 5: Relationship Between Frequency of Fishing and Ever Owning Any Other Boats (Current Boat Owner)

Ever Owned Any Other Boats	Mean Number of Times Fished in the Past 24 Months	Mean Number of Times Fished in the Past 12 Months
Owned Other Boats	61	32
Never Owned Other Boats	48	22

Table 6: Relationship Between Frequency of Fishing and Interest in Purchasing a Boat

Interest in Purchasing a Boat	Mean Number of Times Fished in the Past 24 Months	Mean Number of Times Fished in the Past 12 Months
Plan to Purchase Within 12 Months	91	49
Seriously Considering Purchasing Within 3 Years	75	38
Maybe Someday, But Not Within the Next 3 Years	66	29
Never Planning to Purchase	31	17

Boating Avidity

Among respondents who have gone recreational boating in the past 24 months, they reported going an average of 22 times in that time period.

Table 7 below shows the relationship between frequency of boating and interest in fishing from a boat. Similar to the findings on the relationship between frequency of fishing and interest in fishing from a boat, the trend was that respondents with higher levels of boating avidity (as measured by mean number of times boated) were more likely to say that they were very or extremely interested in going fishing from a boat.

Table 7: Relationship Between Frequency of Boating and Interest in Fishing from a Boat

How interested are you in going fishing from a boat?	Mean Number of Times Boated in Past 24 Months
Not at all interested	10
Not very interested	4
Somewhat interested	10
Very interested	36
Extremely interested	23

Table 8 below shows the relationship between frequency of boating and the likelihood of going fishing from a boat in the next 12 months. Similar to the findings in Table 2 for fishing avidity, the trend was that respondents with higher levels of boating avidity (as measured by mean number of times boated) were more likely to say that they were somewhat, very or extremely likely to go fishing from a boat in the next 12 months.

Table 8: Relationship Between Frequency of Boating and Likelihood of Going Fishing from a Boat in the Next 12 Months

How likely would you be to go fishing from a boat in the next 12 months?	Mean Number of Times Boated in Past 24 Months
Not at all likely	6
Not very likely	4
Somewhat likely	19
Very likely	22
Extremely likely	11

Tables 9-12 below show the relationship between frequency of boating and boat ownership. Similar to the findings on the relationship between frequency of fishing and boat ownership, the trend was that respondents with higher levels of boating avidity (as measured by mean number of times boated) were more likely to own a boat.

Table 9: Relationship Between Frequency of Boating and Current Boat Ownership

Current Boat Ownership	Mean Number of Times Boated in Past 24 Months
Own Boat	39
Do Not Own Boat	9

Table 10: Relationship Between Frequency of Boating and Ever Owning Any Kind of Boat (Not a Current Boat Owner)

Ever Owned Any Kind Of Boat	Mean Number of Times Boated in Past 24 Months
Owned Boat	9
Never Owned Boat	9

Table 11: Relationship Between Frequency of Boating and Ever Owning Any Other Boats (Current Boat Owner)

Ever Owned Any Other Boats	Mean Number of Times Boated in Past 24 Months
Owned Other Boats	47
Never Owned Other Boats	32

Table 12: Relationship Between Frequency of Boating and Interest in Purchasing a Boat

Interest in Purchasing a Boat	Mean Number of Times Boated in Past 24 Months
Plan to Purchase Within 12 Months	94
Seriously Considering Purchasing Within 3 Years	47
Maybe Someday, But Not Within the Next 3 Years	34
Never Planning to Purchase	27

C. Major Findings on Boat Ownership

- 39.9% of respondents currently own a boat and 60.1% do not own a boat.
- 45.8% of current boat owners reported that they had previously owned a boat and 54.2% had not previously owned a boat.
- 24.8% of respondents who do not currently own a boat reported that they previously owned a boat and 75.2% had never owned a boat.
- Among respondents in the Anglers + Boaters and Boaters Only market segments who do not currently own a boat, the top three sources of access to a boat were family members (cited by 48.4% of respondents), friends (cited by 42.4% of respondents) and rental boats (cited by 9.6% of respondents).
- Among current boat owners, the average number of boats owned was 1.7.
- Among current boat owners, the top three types of boats owned are outboard (cited by 88.7% of respondents), human powered (cited by 35.4% of respondents) and inboard (cited by 14.3% of respondents).

- Among current boat owners, the most commonly mentioned time period for having purchased their current boat or boats was 1-5 years ago (cited by 68.4% of respondents).
- Among respondents who have ever owned a boat, 60.4% said their first boat was an outboard, 17.7% said their first boat was a human powered boat (such as a kayak, canoe or rowboat), 6.9% said their first boat was an inboard, 4.8% said their first boat was a sailboat, 4.5% said their first boat was a sterndrive (also known as inboard/outboard) and 5.7% said their first boat was some other type of boat.
- Boat owners (current and/or past) purchased their first boat when they were an average age of 26.8 years old.
- 72.6% of boat owners (current and/or past) purchased their first boat used and 27.4% purchased their first boat new.
- The top three reasons cited by boat owners (current and/or past) for purchasing their first boat were to fish (cited by 63.0% of respondents), to cruise or sightsee (cited by 25.0% of respondents) and to water ski or participate in other water sports (cited by 21.2% of respondents).
- 66.5% of boat owners (current and/or past) reported that it took less than 6 months between the time they first started researching buying a boat and the time they bought their first boat. 17.8% said it took between 6 months and a year, 8.3% said it took 1 to 3 years, 3.0% said it took 4 to 5 years, 1.8% said it took 6 to 10 years and 2.6% said it took more than 10 years.
- 51.6% of boat owners (current and/or past) do not plan to buy another boat in the future. 26.1% plan to buy a larger boat, 10.0% plan to buy a different type of boat, 7.7% plan to buy a more expensive boat, 4.1% plan to buy a smaller boat and 0.5% plan to buy a less expensive boat.

- Among current boat owners, 24.0% plan to purchase a boat in the future but not within the next 3 years, 23.6% are seriously considering purchasing a boat within the next 3 years but are not actively shopping for one now, 7.4% are actively shopping/researching boats and planning to purchase one within the next 12 months, and 45.0% are not planning to purchase a boat in the future.
- Among boat owners (current and/or past) who do not plan to buy another boat in the future, the most commonly cited reason was that their current boat meets all their needs (cited by 63.8% of respondents). Other reasons included not being interested in buying another boat (cited by 19.4% of respondents) and not being able to afford another boat (cited by 7.0% of respondents).
- Across all three market segments, 60.2% of respondents who do not currently own a boat said they are not planning to ever purchase a boat. 21.8% said they plan to purchase a boat someday but not within the next 3 years, 13.5% said they are seriously considering purchasing a boat within the next 3 years but are not actively shopping for one now and 4.5% said they are actively shopping/researching boats and plan to purchase one within the next 12 months.
- Among respondents who have never owned a boat, 33.6% said the cost of a boat was the main reason they had never bought a boat. 22.2% said they didn't want to buy a boat, 13.0% said having access to a boat through a friend or family member was the main reason, 8.3% said time was the main reason, 3.7% said they were not sure what kind of boat they wanted to buy, 1.1% cited the cost of fuel as the main reason 18.1% cited some other reason.
- Across all three market segments, 53.0% of respondents estimate that they spend less than \$50 annually on boating accessories, 11.2% spend between \$50 and \$99 annually, 14.6% spend between \$100 and \$249 annually, 8.2% spend between \$250 and \$499 annually, 5.9% spend between \$500 and \$999 annually and 7.0% spend \$1000 or more

annually. Boat owners were significantly more likely than non-boat owners to spend \$500 or more annually.

- Around one-third of respondents who currently own a boat own multiple boats and have owned other boats in the past. 36% of Anglers + Boaters, 26% of Anglers Only, and 34% of Boaters Only respectively, who currently own a boat, also own a second boat.

Table 13 below displays the characteristics of up to four boats that are currently owned and four boats, other than those currently owned, that have been owned in the past. Some notable caveats about this table include the following:

- The question about when the boat was purchased was not asked for past boats owned
- Questions about mean age when boat was purchased, boat condition, and reason for purchasing a boat were only asked for the first past boat purchased.

From Table 13 one can see the following:

- The majority of all past boats owned are outboards. The same trend is found for the first and second current boats owned, but changes to human powered for the third and fourth current boats owned.
- The mean length of the boat in feet gets shorter as the number of current boats owned increases. The reverse trend is found for past boats owned.
- The majority of all current and past owned boats are made of fiberglass or plastic.

Table 13: Characteristics of Current and Past Boats Owned

	Current Boats				Past Boats			
	1 st Boat	2 nd Boat	3 rd Boat	4 th Boat	1 st Boat	2 nd Boat	3 rd Boat	4 th Boat
Type of Boat								
<i>Outboard</i>	63.1%	54.7%	36.7%	30.2%	60.4%	65.8%	69.3%	73.1%
<i>Inboard</i>	10.8%	5.6%	5.4%	5.3%	6.9%	9.5%	6.5%	9.4%
<i>Stern Drive</i>	7.9%	1.5%	0.0%	0.0%	4.5%	7.7%	6.3%	3.9%
<i>Sailboat</i>	2.4%	4.4%	4.7%	7.6%	4.8%	5.0%	3.7%	4.4%
<i>Human Powered</i>	11.7%	30.3%	43.4%	49.3%	17.7%	7.6%	10.4%	5.4%
<i>Other</i>	4.1%	3.4%	9.8%	7.6%	5.7%	4.3%	3.8%	3.9%
Mean Length of Boat	18.9	15.3	14.8	13.9	16.6	17.3	16.4	17.7
Boat Material								
<i>Fiberglass/Plastic</i>	62.5%	45.2%	45.7%	57.9%	56.3%	64.1%	58.3%	44.1%
<i>Aluminum/Metal</i>	34.1%	45.9%	44.1%	20.2%	30.4%	27.9%	32.4%	44.6%
<i>Inflatable</i>	1.2%	1.3%	2.9%	5.6%	0.9%	1.5%	1.1%	1.7%
<i>Wood</i>	1.6%	3.0%	7.3%	7.6%	11.4%	5.7%	8.2%	9.5%
<i>Other Material</i>	0.4%	4.7%	0.0%	8.7%	1.0%	0.8%	0.0%	0.0%
When Boat Was Purchased								
<i>Within Past 6 Months</i>	6.7%	5.0%	5.6%	3.8%				
<i>Within Past Year</i>	8.5%	8.4%	7.0%	11.8%				
<i>1-5 Years Ago</i>	45.0%	36.6%	42.0%	43.1%				
<i>6-10 Years Ago</i>	21.6%	17.5%	18.5%	17.6%				
<i>More Than 10 Years Ago</i>	18.2%	32.4%	26.9%	23.8%				
Type of Human Powered Boat								
<i>Kayak</i>	35.6%	32.0%	26.0%	35.3%	9.3%	43.3%	10.8%	28.4%
<i>Canoe</i>	43.0%	46.5%	56.7%	39.5%	47.5%	40.6%	42.5%	20.5%
<i>Row Boat</i>	17.5%	18.9%	10.7%	7.4%	31.0%	16.0%	36.0%	51.1%
<i>Other</i>	3.9%	2.5%	6.6%	17.7%	12.2%	0.0%	10.8%	0.0%
Portable Motor on Human Powered Boat								
<i>Trolling Motor</i>	22.1%	26.6%	8.4%	15.4%	30.0%	16.7%	34.7%	29.9%
<i>No Trolling Motor</i>	77.9%	73.4%	91.6%	84.6%	70.0%	83.3%	65.3%	70.1%
Mean Age When Boat Purchased					26.8			

Table 13: Characteristics of Current and Past Boats Owned (continued)

	Current Boats				Past Boats			
	1 st Boat	2 nd Boat	3 rd Boat	4 th Boat	1 st Boat	2 nd Boat	3 rd Boat	4 th Boat
Boat Condition								
<i>New</i>					27.4%			
<i>Used</i>					72.6%			
Primary Use of Boat								
<i>Cruise/Sightsee</i>					25.0%			
<i>Fish</i>					63.0%			
<i>Sail</i>					6.8%			
<i>Water Ski</i>					21.2%			
<i>Paddle Sports</i>					8.2%			
<i>Other</i>					7.5%			

Table 14 below shows the demographic characteristics by the three market segments for those who currently own a second boat.

Table 14: Demographic Characteristics of Current Owners of a Second Boat

	Anglers + Boaters	Anglers Only	Boaters Only
Gender			
<i>Male</i>	70%	68%	61%
<i>Female</i>	30%	22%	39%
Marital Status			
<i>Now Married</i>	72%	90%	50%
<i>Divorced</i>	1%		22%
<i>Never Married</i>	25%	10%	28%
<i>Widowed/Separated</i>	2%		
Employment Status			
<i>Employed Full Time</i>	59%	48%	64%

**Table 14: Demographic Characteristics of Current Owners of a Second Boat
(continued)**

	Anglers + Boaters	Anglers Only	Boaters Only
<i>Employed Part Time</i>	5%	5%	5%
<i>Retired</i>	26%	19%	9%
<i>Homemaker</i>	4%	14%	9%
<i>Unemployed</i>	4%	9%	8%
<i>Student</i>	2%	5%	5%
Total Household Income			
< \$25,000	6%	9%	
\$25,000 - \$49,999	17%	17%	16%
\$50,000 - \$74,999	13%	17%	10%
\$75,000 - \$99,999	16%	9%	32%
\$100,000 - \$149,999	16%	9%	
\$150,000 - \$199,999	4%	4%	11%
\$200,000+	2%	9%	16%
<i>Refused</i>	18%	22%	5%
<i>DK</i>	8%	4%	10%
Highest Level of Education			
<i>Some High School</i>	1%	4%	5%
<i>Graduated High School</i>	27%	33%	10%
<i>Vocational School</i>	9%	4%	9%
<i>Some College</i>	23%	28%	33%
<i>Graduated College</i>	23%	23%	14%
<i>Post Graduate Degree</i>	17%	8%	29%

D. Major Findings on Interest in Fishing from a Boat

This section presents the demographic profile of those Anglers Only and Boaters Only who are interested in fishing from a boat. Table 15 below displays the characteristics of these two market segments based on their interest. The survey participants that responded “somewhat interested, very interested, or extremely interested” in going fishing from a boat are shown in the “Interest” columns. Those that reported “not at all interested or not very interested” are displayed in the “Not Interested” columns.

We have conducted significance testing at the 95% confidence interval to determine if the apparent difference between two results is significant or due merely to chance. This testing was done across all four columns of data in Table 15. The presence of an alphabetic character in a cell indicates the number in that cell is significantly different than the number in the cell(s) indicated by the alphabetic character.

Some highlights from Table 15 include:

- Anglers Only, whether interested or not in fishing from a boat, are predominately male while the Boaters Only are female.
- There is a larger percentage of divorced Boaters Only who are interested in fishing from a boat than those Anglers Only not interested in fishing from a boat.
- There is a higher percentage of black Anglers Only who are not interested in fishing from a boat than the black Boaters Only who are not interested in fishing from a boat.
- A higher percentage of homemakers in both the Anglers Only and Boaters Only market segments are not interested in fishing from a boat.

**Table 15: Demographic Profile of the Anglers Only and Boaters Only Market Segments
Who Are/Are Not Interested in Going Fishing from a Boat**

	A	B	C	D
	Anglers Only Interested	Anglers Only Not Interested	Boaters Only Interested	Boaters Only Not Interested
Number	224	72	93	130
Average Age	43.2	43.9	41.7	43.4
Gender				
Male	69.5% c d	58.3% c d	39.8%	30.8%
Female	30.5%	41.7%	60.2% b a	69.2% a b
Marital Status				
Married	67.0%	62.0%	58.1%	71.3% c
Widowed	3.1%	2.8%	2.2%	2.3%
Divorced	8.9%	5.6%	15.1% b d	6.2%
Separated	0.9%	1.4%	2.2%	1.6%
Never married	19.6%	25.4%	22.6%	17.1%
DK/REF	0.4%	2.8%	0.0%	1.6%
Race				
White	88.1%	80.6%	94.5% a b	93.9% b
Black	5.0%	10.6% c d	1.7%	2.6%
American Indian	1.3%	2.6%	0.7%	0.8%
Asian	0.8%	1.1%	0.0%	0.9%
Native Hawaiian	0.0%	1.1%	0.0%	0.5%
Hispanic	3.2%	3.8%	1.2%	0.0%
Other	1.6%	2.4%	1.8%	2.0%
Employment				
Full Time	62.1% b	40.3%	71% b	58.5% b
Part Time	9.8%	6.9%	8.6%	9.2%
Homemaker	5.8%	15.3% a c	8.6%	13.1% a
Retired	12.1%	20.8% c	6.5%	13.1%
Student	3.1%	1.4%	1.1%	1.5%
Unemployed	6.7% d	11.1% d	3.2%	2.3%
DK/Ref	0.4%	4.2%	1.1%	2.3%
Education				
Grade school or less	0.9%	4.2%	0.0%	1.5%
Some high school	4.9%	6.9%	0.0%	1.5%
High School Grad	27.4% d	34.7% c d	20.4%	17.7%
Tech School	3.6%	4.2%	7.5%	3.1%
Some College	35% b c d	20.8%	12.5%	21.5%

**Table 15: Demographic Profile of the Anglers Only and Boaters Only Market Segments
Who Are/Are Not Interested in Going Fishing from a Boat (continued)**

College Grad	20.2%	18.1%	30.1%	34.6% a b
Post Grad Degree	7.2%	8.3%	18.3% a	17.7% a b
DK/Ref	1.8%	7.0%	2.2%	3.8%
Income				
Less than 25K	15.7% c d	26.8% c d	3.2%	3.8%
25-50K	23.3%	26.8%	29.0% d	16.0%
50-75K	22.0%	15.5%	17.2%	23.7%
75-100K	5.4%	11.3%	16.1% a	14.5% a
100-150K	7.6%	2.8%	9.7%	9.2% b
150-200K	1.3%	1.4%	2.2%	4.6%
200K or more	1.8%	0.0%	3.2%	6.9% a
DK/Ref	22.8%	15.5%	19.4%	21.4%
Household				
Avg # People in HH	3.2 b d	2.7	3.4 b d	2.8
Avg # of Kids in HH	1.1	1.0	1.2	1.0

Significance testing done at 95% confidence interval

E. Other Major Findings

This subsection presents other major findings from the national survey. These include findings on early experiences with fishing, early experiences with boating, current fishing participation, current boating participation, the directional relationship between recreational fishing and boating, attitudes and behaviors related to environmental stewardship and overall respondent demographic characteristics.

Early Experiences with Fishing

Among respondents in the Anglers + Boaters and Anglers Only market segments:

- The average age of first involvement in fishing was 8.7 years.

- 87.9% were first introduced to fishing by a family member, 8.8% were first introduced by a friend and the remaining 3.3% were first introduced by a neighbor, co-worker, community or school program, or first tried fishing on their own.
- 60.0% first went fishing from the shore or bank, 21.2% first went fishing from a pier or dock, 15.2% first went fishing from a boat and 3.7% first went fishing some other place.

Among respondents in the Boaters Only market segment:

- 84.9% went fishing as a child and 15.1% did not go fishing as a child.
- Of those who went fishing as a child, the average age of first involvement was 7.1 years.
- Of those who went fishing as a child, 90.4% were first introduced to fishing by a family member, 6.9% were first introduced by a friend and the remaining 2.7% were introduced by a neighbor, community or school program, or first tried fishing on their own.

Early Experiences with Boating

- Respondents in the Anglers + Boaters and Boaters Only market segments and respondents in the Anglers Only market segment who went boating as a child first became involved in boating at an average age of 12.7 years.
- 71.9% of respondents in the Anglers + Boaters and Boaters Only market segments and respondents in the Anglers Only market segment who went boating as a child were first introduced to boating by a family member, 22.4% were first introduced by a friend and the remaining 5.7% were first introduced by a neighbor, co-worker, community or school program, or first tried boating on their own.
- Among respondents in the Anglers Only market segment, 59.0% went boating as a child and 41.0% did not go boating as a child.

- Among respondents in the Boaters Only market segment, 44.6% said that when they first went boating their primary activity was to fish, 26.6% said their primary activity was to cruise or sightsee, 21.8% said their primary activity was to do water sports, 3.8% said their primary activity was to sail and 3.2% said their primary activity was something else.

Current Fishing Participation

- 92.3% of all respondents have gone fishing as an adult and 7.7% have not gone fishing as an adult. While all respondents in the Anglers + Boaters and Anglers Only market segments satisfied this criterion as part of the screening, only 65.3% of respondents in the Boaters Only market segment have gone fishing as an adult.
- Of those respondents who have gone fishing as an adult, 86.4% have gone fishing at least one time in the past 24 months and 13.6% have not. While all respondents in the Anglers + Boaters and the Anglers Only market segments satisfied this criterion as part of the screening, only 14.0% of respondents in the Boaters Only market segment have gone fishing in the past 24 months.
- Of those respondents who have not fished in the past 24 months, 50.8% said they were somewhat, very or extremely likely to consider going fishing in the next 12 months and 49.2% said they were not likely or not at all likely to consider going fishing in the next 12 months.
- 63.0% of respondents in the Anglers + Boaters and Anglers Only market segments reported that they currently fish the most with family members. 25.8% reported that they currently fish the most with friends and the remaining 11.2% reported that they currently fish the most with neighbors, co-workers, by themselves, or with some one else.
- 65.4% of respondents in the Anglers + Boaters and Anglers Only market segments described their fishing experiences as freshwater only, 25.3% described them as both saltwater and freshwater and 9.4% described them as saltwater only. Among these same

respondents, non-boat owners were significantly more likely than boat owners to describe their fishing experiences as saltwater only.

- 46.6% of respondents in the Anglers + Boaters and Anglers Only market segments have taken a trip or vacation that involved fishing in the past 24 months whereas 53.4% have not.
- 83.6% of respondents who have taken a trip or vacation that involved fishing in the past 24 months reported that fishing was planned as part of the trip/vacation and 16.4% reported that they just ended up fishing while on the trip/vacation.
- 62.7% of respondents in the Anglers + Boaters and Anglers Only market segments currently own a valid non-commercial fishing license and 37.3% do not. Among these same respondents, boat owners were significantly more likely than non-boat owners to own a fishing license.
- 96.6% of respondents who currently own a valid non-commercial fishing license plan to renew their fishing license next year and 3.4% do not plan to renew it.
- 56.2% of respondents who do not currently own a valid non-commercial fishing license plan to buy a fishing license next year and 43.8% do not plan to buy one next year.
- 87.8% of respondents who plan to renew or buy a fishing license next year said that they purchase a fishing license on an annual basis, 6.1% purchase a license for shorter time periods (e.g., 1-day, 3-day), 4.2% purchase a license only when they go on vacation or a special trip and 1.9% have never purchased a fishing license. Among these same respondents, boat owners were significantly more likely than non-boat owners to purchase a fishing license on an annual basis.
- 94.6% of respondents in the Anglers + Boaters and Anglers Only market segments own fishing equipment and 5.4% do not own any fishing equipment. Among these same

respondents, boat owners were significantly more likely than non-boat owners to own fishing equipment.

- 52.6% of respondents who own fishing equipment estimate that they spend less than \$100 annually on fishing equipment, 26.8% spend between \$100 and \$249 annually, 10.3% spend between \$250 and \$499 annually, 3.8% spend between \$500 and \$999 annually and 6.6% spend \$1000 or more annually. Among these same respondents, boat owners were significantly more likely than non-boat owners to spend \$1000 or more annually.

Current Boating Participation

- 71.8% of respondents have gone recreational boating in the past 24 months and 28.2% have not. While all respondents in the Anglers + Boaters and the Boaters Only market segments satisfied this criterion as part of the screening, only 4.6% of respondents in the Anglers Only market segment have gone recreational boating in the past 24 months.
- 59.0% of respondents who have gone recreational boating in the past 24 months reported that they went boating for the purpose of fishing at least one time in the past 12 months and 41.0% reported that they had not. Among these same respondents, 87.6% reported that they went boating for recreational purposes (but not to fish) at least one time in the past 12 months and 12.4% reported that they had not.
- 63.8% of respondents in the Anglers + Boaters and Boaters Only market segments reported that they currently boat the most with family members. 30.5% reported that they currently boat the most with friends and the remaining 5.7% reported that they currently boat the most with neighbors, co-workers, by themselves, or with some one else.
- 63.1% of respondents in the Anglers + Boaters and Boaters Only market segments described their boating experiences as freshwater only, 25.2% described them as both saltwater and freshwater and 11.7% described them as saltwater only.

- Among respondents in the Anglers + Boaters and Boaters Only market segments, the top four activities done on a boat were cruising or sightseeing (cited by 64.3% of respondents), fishing (cited by 57.1% of respondents), water skiing or water sports (cited by 44.9% of respondents) and paddle sports such as kayaking or canoeing (cited by 24.2% of respondents).
- 59.7% of respondents in the Anglers + Boaters and Boaters Only market segments have taken a trip or vacation that involved boating in the past 24 months whereas 40.3% have not.
- 83.6% of respondents who have taken a trip or vacation that involved boating in the past 24 months reported that boating was planned as part of the trip/vacation and 16.4% reported that they just ended up boating while on the trip/vacation.

The Directional Relationship Between Recreational Fishing and Boating

- 45.2% of respondents identify most with being an angler, 20.7% identify most with being a boater, and 34.0% identify most with neither. Boat owners were significantly more likely than non-boat owners to identify most with being a boater whereas non-boat owners were significantly more likely than boat owners to identify most with neither.
- 59.6% of respondents would pick fishing over boating if they could only participate in one activity but not both. 40.4% would pick boating over fishing if they could only participate in one activity but not both.
- Among respondents who participated in both fishing and boating before the age of 18, 60.2% reported that they spent more time fishing as a child compared to 16.8% who reported that they spent more time boating as a child and 23.0% who reported that they spent the same amount of time fishing and boating as a child.

Environmental Stewardship

- 59.7% of respondents believe their fishing and/or boating experiences have a very or extremely important influence on how they look at the environment. 31.4% believe their fishing and/or boating experiences have a somewhat important influence on how they look at the environment and 8.8% believe their fishing and/or boating experiences are not important or not at all important in influencing how they look at the environment.
- 52.5% of respondents agreed or strongly agreed that they were willing to volunteer their time to help the environment. 14.1% disagreed or strongly disagreed and 23.4% neither agreed nor disagreed.
- 63.1% of respondents agreed or strongly agreed that they were willing to pay more for fishing and boating products or services if it improves the environment. 18.3% disagreed or strongly disagreed and 18.6% neither agreed nor disagreed.
- 87.8% of respondents do not belong to a conservation or environmental organization and 12.2% do belong to such an organization.

Overall Respondent Demographic Characteristics

- The mean age of respondents was 42.2 years old. The mean age for the Anglers + Boaters market segment was 41.3 years old and the mean age for the Anglers Only and Boaters Only market segments were 43.4 and 42.7 years old respectively. Overall boat owners were significantly older than non-boat owners with a mean age of 46.0 years compared to a mean age of 39.8 years for non-boat owners.
- 60.8% of respondents were male compared to 39.2% female. A higher proportion of males were seen in the Anglers + Boaters market segment (69.2% male, 30.8% female) and the Anglers Only market segment (66.9% male, 33.1% female). This was not true of

the Boaters Only market segment where 66.3% were female and 34.7% were male. 66.4% of boat owners were male.

- 67.0% of respondents reported being currently married. 20.8% have never been married and 12.2% reported being divorced, widowed or separated. 75.3% of boat owners reported being currently married compared to 61.4% of non-boat owners who reporting being currently married.
- Respondents reported that an average of 3.1 people regularly live in their household.
- Respondents reported that an average of 1.1 children under the age of 18 live in their household. Boat owners (0.9 children) reported slightly fewer children under the age of 18 than non-boat owners (1.1 children).
- 61.9% of respondents reported being employed full-time. 13.5% reported being retired. 18.8% of boat owners were retired compared to 10.1% of non-boat owners.
- 26.3% of respondents graduated college and 11.9% have an advanced degree. 25.8% have some college and 26.0% have a high school diploma. 40.6% of the Anglers Only market segment has less than some college whereas 37.6% of the Anglers + Boaters market segment have less than some college and only 26.5% of the Boaters Only market segment have less than some college.
- 40.9% of respondents reported that their 2005 total household income between \$50,000 and \$100,000. 40.4% reported that it was less than \$50,000 and 18.9% reported that it was more than \$100,000. 53.9% of the Anglers Only market segment reported that their 2005 total household income was less than \$50,000 compared to 36.0% of the Anglers + Boaters market segment and 31.6% of the Boaters Only market segment. Boat owners reported higher 2005 total household income than non-boat owners. 44.9% of non-boat owners reported 2005 total household income less than \$50,000 and 16.6% reported 2005 total household income of greater than \$100,000. 33.1% of boat owners reported 2005

total household income less than \$50,000 and 22.5% reported 2005 total household income greater than \$100,000.

- 91.1% of respondents reported their race as Caucasian.

IV. IMPLICATIONS AND RECOMMENDATIONS

The implications and recommendations offered below represent the initial emergent themes from the key findings and detailed topical area analyses of the research database. Additional impacts and conclusions may emerge as other researchers from the RBFF, its Board of Directors, and other stakeholders delve deeper into the data.

- Fishing and boating are best understood as an aspect of family life given the fact that most anglers and boaters are introduced to the recreational activity within the context of the family.
- Households with children are an important target market for fishing and boating promotional efforts because participants in these recreational activities are introduced to them at an early age.
- The survey results clearly establish that different market segments have varying interests in going fishing or boating or fishing from a boat. For example, there may be greater opportunity to attract anglers only to fishing from a boat than to attract boaters only to fishing from a boat. Future research and marketing efforts that utilize this information will be more successful.
- Recreational boating is closely tied to fishing. The majority of current and/or past boat owners purchased their first boat for the primary reason to fish.
- The cost of boating is an issue for all market segments and avidity types as it relates to the transition from non-ownership to boat ownership.
- The research conducted for this study indicates that the directional relationship between boating and fishing begins first with fishing and then boating comes later as a means of getting better access to fish or as another way to enjoy the water.

- There is no common standard definition of market segment and avidity types across recognized surveys that measure these characteristics. Because of the different goals and missions of the organizations that produce these measures, it may be difficult to agree on standard definitions. However, RBFF should work toward the development of a common definition.
- Further research is needed on the Hispanic, black, and female angler and boater markets. The Hispanic population is the fastest growing minority population in the United States. The correlations of these three minority populations in relationship to recreational boating and fishing may be very different as compared to whites. Although the research conducted for this study contains data for these minority groups, the sample sizes are too small to place much reliability on the resulting estimates.
- Further research is needed on the transitional process of moving from fishing to boating and its contrast, moving from boating to fishing. Although the current research obtained information about the directional relationship in general, more details are needed to better understand the various stages of the transition and the factors that affect and influence these stages.

V. METHODOLOGY

A. Sampling Methodology

This survey used a random-digit-dialing (RDD) sampling methodology. A RDD approach was chosen for three reasons. First, the random selection process ensures that the resulting sample is a probability sample. A probability sample allows the researcher to make valid inferences about the entire population. Second, RDD surveys reach both listed and unlisted numbers. Third, RDD surveys can be done quickly, and this was important for this project.

MSI used a list-assisted RDD sample design approach because it is the most efficient RDD method available. Rather than selecting a sample of telephone numbers purely at random, the list-assisted approach uses information about which 100-blocks (how telephone numbers are grouped) will likely contain residential numbers as a basis for selecting a sample of telephone numbers. MSI generated the RDD sample for this survey through an on-going arrangement with Genesys Sampling Systems.

B. Instrument Development

As stated earlier, the questionnaire for the national survey built upon the results of the in-depth interviews and focus groups conducted in phases 1 and 2 of this project. MSI worked closely with the RBFF to develop the questionnaire and to ensure that the key research questions for each of three market segments (Anglers + Boaters, Anglers Only and Boaters Only) were addressed. Major content areas in the questionnaire included fishing experiences (childhood and adult), fishing avidity, boating experiences (childhood and adult), boat ownership, the adoption process through which people move from participating in one activity to participating in both, barriers to fishing from a boat and demographics. Attachment A contains a copy of the final questionnaire.

C. Instrument Programming and Testing

MSI programmed the final approved version of the questionnaire for computer-assisted telephone interviewing (CATI). Following programming, the instrument was thoroughly tested for accuracy, adherence to design specifications, and operational integrity. Multiple staff reviewed the instrument before fielding to make sure that the question text, answer codes and question order appeared correctly on the CATI screen, that the skip logic worked appropriately, and that relevant interviewer notes and probes were included. Any problems with question wording or skip logic were corrected and re-tested.

D. Interviewer Training

To ensure that the data collected were of the highest quality, MSI telephone interviewers underwent extensive training to ensure full understanding of the study objectives and survey instrument. MSI professional staff conducted an in-depth project briefing with interviewing staff prior to their working on the project. Interviewers were trained on survey goals and objectives, handling respondent questions about the survey, screening for eligibility, termination points and qualifiers for participation, reading of the survey instrument, understanding skip patterns and probing and clarifying techniques necessary for specific questions on the questionnaire. Training was conducted via lecture and role-playing.

E. Pretest

Prior to launching the main data collection, MSI conducted a pretest with 60 respondents. The objectives of the pretest were to:

- Determine whether the questions could be easily understood
- Evaluate whether additional or specifying questions were needed or whether some questions should be eliminated

- Test the adequacy of question wording and interviewer instructions/probes
- Ensure that appropriate response choices were included
- Test instrument performance and skip patterns in a live interviewing setting
- Assess likely incidence for each of the three market segments

Based on the pretest, minor changes were made to questionnaire wording and skip patterns. These changes were programmed and carefully tested prior to full-scale implementation.

F. Data Collection

Data were collected in two phases. The first phase involved a screening operation based on age (adults ages 18-70) and level of participation in recreational fishing and boating to determine eligibility for a detailed interview. Those that screened out were eliminated from the survey process. The screening criteria grouped respondents into one of three mutually exclusive market segments for the purposes of the detailed survey to follow. As described in Section III, the three market segments were defined as follows:

- *Anglers Only*: Fished at least one time in the past 12 months and has not boated in the past 24 months, either for recreational purposes or to fish.
- *Boaters Only*: Boated at least one time in the past 12 months for recreational purposes, but not to fish, and has not fished in the past 24 months.
- *Anglers + Boaters*: Fished at least one time in the past 12 months and has boated at least one time in the past 12 months, either for recreational purposes or to fish.

In the second phase, MSI attempted to complete a detailed interview with all eligible respondents who qualified for the survey. If the respondent was unable to complete an interview at that time, we made an appointment for a call back.

Initial interviews were monitored for consistency and adherence to interviewing procedures. Interviewers who had problems were provided with additional training, coaching and practice. After the initial interviewing period, a telephone supervisor and/or MSI project staff monitored fifteen percent of all interviews. RBFF personnel also monitored several interviews.

G. Weighting

The survey data were weighted using screening data from the Fish and Wildlife Service's (FWS) 2006 Fish/Hunt Survey conducted by the U.S. Census Bureau. The weighting process involved the following steps:

- Obtained a file from the Census Bureau of the weighted number of anglers by various demographic characteristics. Due to the large sample size of the FWS survey and its rigorous methodology, these data provide a good estimate for the number of anglers.
- Using the Census Bureau's angler estimate and the distribution of interviewed cases by market segment in the survey, we constructed an estimator for the Boaters Only segment.
- Constructed estimates of the size of the Anglers Only, Boaters Only, and Anglers + Boaters market segments.