



*Socioeconomic
Characteristics of*
**Mississippi
Lifetime
Sportsmen**



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Socioeconomic Characteristics of Mississippi Lifetime Sportsmen

INTRODUCTION

The NOAA Fisheries (2012) interactive fisheries economic impacts tool (IFEIT) estimates the expenditures and economic impacts of the saltwater recreational fishing sector in the U.S. Saltwater recreational fishing created an economic impact of about \$417 million (NOAA Fisheries 2012) or 0.45% of the gross state product of Mississippi in 2009. The marine recreational fishing economic sector provided jobs to 3,188 workers and also provided more than \$105 million in personal income in 2009 (NOAA Fisheries 2012). The economic impacts cover marine recreational fishing expenditures on durable equipment, for-hire trips, private boat trips, and shore trips. The economic impacts were estimated from a fishing trips and durable expenditures survey of licensed Mississippi saltwater anglers. In order to enhance the estimation of the saltwater recreational fishing impacts, frequent updates of the marine saltwater recreational fishermen registry are needed by the state and federal regulatory agencies managing the marine resources. These updates consist of the sportsmen's contact information, saltwater recreational fishing participation, and socioeconomic characteristics.

The regulations governing saltwater recreational fishing in the state of Mississippi are best described by the following Law Enforcement section of the MDWFP (2012b):

“Each resident of the State of Mississippi ages sixteen to sixty-four, fishing in the fresh or marine waters of Mississippi, including lakes and reservoirs but NOT to include privately

owned ponds and streams, shall be required to buy a fishing license. A saltwater license is required south of U. S. Highway 90 and a freshwater or saltwater license is valid between I-10 and U. S. Highway 90. Saltwater license is not valid north of I-10. Any person sixty-five or older, or any person otherwise exempted from obtaining a fishing license, must have documentation with him/her at all times while fishing as described in Exemptions. [Mississippi Code 49-7-9].”

The purchase of Mississippi lifetime sportsman licenses (MLSL) allows holders to hunt and/or fish during a legal season and to take any game or fish, except waterfowl, without the purchase of additional licenses or permits unless required by law (MDWFP 2012a). The MLSL allows fishermen to take fish, crabs, oysters, shrimp, and any other saltwater fish authorized to be taken under recreational permit. Due to the nature of the MLSL, these sportsmen are not covered by the annual licensing process for saltwater recreational fishing in the state of Mississippi. As such, those Mississippi lifetime sportsmen who fish in the state saltwater are not included in the total population of the state saltwater recreational fishermen.

An online and mailed survey was conducted to verify the contact information and determine the saltwater fishing preferences of holders of the MLSL. The specific objectives of this survey were as follows: (1) to determine the past saltwater fishing preferences of the holders of the Mississippi lifetime sportsman license,

and (2) to determine the future saltwater fishing preferences of the holders of the Mississippi lifetime sportsman license.

The results of this survey provide contact information and saltwater fishing preferences of the holders of the MLSL. The information on fishing preferences is limited to whether they went saltwater fishing and to where they went saltwater fishing in Mississippi waters. The saltwater fishing preferences of the holders of the MLSL are reported by state of residence, license name and year license was purchased. In addition, this bulletin compares the socioeconomic characteristics of the holders of the MLSL who responded to the survey

and those who went saltwater fishing in Mississippi waters.

The socioeconomic and saltwater fishing information about the holders of the MLSL can be added to the registry databases on the marine recreational fishing licenses issued by the state. The lifetime sportsmen's participation in this survey will allow the state's saltwater anglers to remain exempt from federal recreational fishing license requirements, as per memorandum of agreement between the NOAA Fisheries and the Mississippi Department of Marine Resources (Federal Register 2012).

METHODS

Recent investigations provided theoretical guidance in the determination of the factors affecting recreational fishing behavior among saltwater fishermen. Bockstael, McDonnel, and Strand (1989) discussed the strengths and weaknesses of the random utility model (RUM) to estimate sportfishing behavior using preliminary data in Florida. Greene, Moss, and Spreen (1997) estimated the probability that an individual visits a recreational fishing site as a function of travel costs to all sites, demographic variables of the individual and characteristics of site in Tampa Bay, Florida.

Large-scale, multimodal and mail surveys were conducted among saltwater recreational fishermen. Crosson (2010) conducted a multimodal socioeconomic survey of 608 anglers to provide information on how North Carolina coastal anglers are impacted by changes in harvest rules. A mail survey of 2,000 anglers was conducted to provide fisheries managers with information on Texas resident senior anglers' current characteristics, general fishing habits, attitudes, motivations, participations, expenditures, and opinions on a variety of management issues (Tseng and Ditton 2008). Anderson and Ditton (2004) conducted a mail survey of 10,000 anglers to provide fishery managers information on Texas anglers' fishing practices, experiences, attitudes, and opinions on a variety of concerns.

Understanding the Mississippi lifetime sportsmen preferences for saltwater fishing will enhance the estimation of the overall economic contribution of the economic sector to the economy of the state of Mississippi and the Gulf of Mexico region. Mississippi lifetime sportsmen's decisions to go or not to go salt-

water fishing are hypothesized to be a function of their expected level of satisfaction subject to their personal characteristics and properties of the licenses bought. The lifetime sportsman's decision where to go saltwater fishing is also assumed to be a function of travel costs to all coastal sites, personal characteristics and budget constraints, properties of the sportsman license bought, and characteristics of all coastal sites. A forthcoming paper will attempt to determine the influences of the sportsman's characteristics and properties of the sportsman license to the sportsman's decision to go or not to go saltwater fishing, as well as the impacts of the travel costs, personal characteristics and budget constraints, properties of the sportsman license bought, and characteristics of coastal sites to the sportsman's decision of where to go saltwater fishing.

Understanding the decisions of Mississippi lifetime sportsmen in participating in both mail and online surveys will improve the participation in future surveys among similar survey audiences. An additional paper will identify factors that influenced the sportsman's decision to participate or not participate in the mail or online survey, determine whether there are differences in their responses to mail or online surveys, and determine the marginal impacts of the different methods used to seek their participation in the survey.

Data Collection

As of September 1, 2010, there were 14,706 holders of the MLSL listed in the official database provided by the Mississippi Department of Fisheries, Wildlife, and Parks (MDFWP). All the licensed lifetime sports-

men were contacted by mail and by email to seek their participation in the survey, as shown in Appendix A. The lifetime sportsmen had the option of completing the mailed survey or completing the survey online. The lifetime sportsmen's past saltwater fishing preferences were determined by asking whether they went saltwater fishing in 2009 and 2010, as shown in Appendix B, question number 1 and 2. Future saltwater fishing preferences were determined by asking respondents to indicate whether they went or planned to go saltwater fishing in 2011 and 2012, as shown in Appendix B, questions number 3 and 4. Following is a detailed list of activities conducted to collect the data about the Mississippi lifetime sportsmen:

- Began updating mailing addresses and/or telephone numbers of 14,706 sportsmen on May 24, 2011.
 - Developed and completed the commercial printing of 14,706 postcards on May 31, 2011. Mailed postcards to verify mailing addresses of 14,706 sportsmen on June 6, 2011. A total of 2,525 postcards were returned due to problems associated with their mailing addresses. The faulty mailing addresses were updated using available online databases.
 - Estimated mileage and driving time from sportsman residence to all three coastal sites selected as reference points starting on June 15, 2011. The coastal counties of Mississippi listed are Hancock County, Harrison County, and Jackson County.
 - Created online version of the survey using Survey Monkey. Emailed sportsmen with listed email addresses links to the online survey on June 27, 2011. A total of 2,650 emails were sent to sportsmen with email addresses, of which 408 emails were returned by the recipients' servers.
 - Prepared first mail survey of all sportsmen with good addresses and mailed out on July 28, 2011. The first mail out of the recruitment letter and survey totaled 12,391 sportsmen, of which 380 were returned due to faulty addresses.
 - Prepared second mail survey, mailed out October 21, 2011. A total of 9,977 recruitment letters and surveys were mailed with the second mailing, of which 264 were returned due to faulty addresses.
 - Emailed 1,045 sportsmen with listed email addresses and who had not yet participated in the survey starting in March 2012.
 - Closed online and mail surveys in April 2012. A total of 4,744 sportsmen completed the survey, of whom 945 sportsmen responded online.
- Sent thank-you postcards to sportsmen who participated in the survey and thank-you emails to sportsmen with email addresses in June 2012.

Data Analysis

The total population and the saltwater fishing preferences of licensed sportsmen who participated in the survey were cross-tabulated with three known characteristics provided in the database: (1) state of residence, (2) license type, and (3) license year using SPSS (version 19.0 for Windows; SPSS, Chicago). The population and participation by sportsmen were measured by the number and percentages of those who bought the sportsman license and participated in the survey, respectively. The saltwater fishing preferences were measured by the number and percentages of those who went saltwater fishing in 2009 and 2010 and went or planned to go saltwater fishing in 2011 and 2012.

Cross-tabulating the population and saltwater fishing preferences with the state of residence provided a spatial distribution of where the lifetime sportsmen were located. The current holders of the MSL are now residing in 45 states. The frequency and percent distributions of all the Mississippi lifetime sportsmen and those who participated in the survey by state of residence are shown in Figures 1–2 and Appendix C. Similarly, the spatial distribution of the Mississippi lifetime sportsmen residing in the state of Mississippi, those who participated in the survey and participation rates by county of residence are shown in Figures 3–4.

Cross-tabulating the population and saltwater fishing preferences with the license type exhibited the whole range of the lifetime sportsmen licenses bought by the sportsmen. The detailed distribution of the Mississippi lifetime sportsmen by license type is shown in Appendix D. There are three basic types of Mississippi lifetime sportsmen licenses (MDWFP 2012c): (1) R1 or lifetime sportsman age 13 and over (\$1,000), (2) R2 or lifetime sportsman birth through 12 (\$500), (3) and N2 or nonresident Mississippi native lifetime (\$1,500).

However, the holders of the MSL bought 14 different types of sportsmen licenses from 1989 to 2011. The R1 license for lifetime sportsmen age 13 and over includes lifetime resident fishing gold, R4; lifetime resident sportsman age 13+, R1; lifetime resident sportsman gold, R1; and lifetime sportsman age 13+. The R2 license for lifetime sportsmen age birth through 12 includes lifetime resident age 2-12, R6; lifetime resident fishing age 13 and under, R5; lifetime resident

sportsman age 2-12, R2; lifetime resident sportsman under 2, R3; lifetime resident under 2, R7; and lifetime sportsman age 0-12. The N2 “nonresident Mississippi native lifetime” license includes lifetime nonresident Mississippi native son, N1; lifetime nonresident Mississippi native son, N2; lifetime nonresident Mississippi native son, N0; and nonresident lifetime Mississippi native son.

Cross-tabulating the population and saltwater fishing preferences with the license year demonstrated the temporal distribution of when the lifetime sportsmen purchased licenses. The total number of MLSL sold since 1989 reached 14,706 licenses as of September

2010. The detailed distribution of the Mississippi lifetime sportsmen by license year is shown in Appendix E.

Some relevant socioeconomic characteristics of the lifetime sportsmen included birth year, employment status, annual personal income from all sources before taxes, race or ethnicity, and last grade or year of school completed (Appendix B). The descriptive characteristics of the lifetime sportsmen are measured in terms of frequency and percent distribution by specific socioeconomic characteristic included in the survey. These characteristics will be used to determine the significant factors influencing the saltwater recreational fishing choices made by the lifetime sportsmen who participated in the survey.

SPATIAL AND TEMPORAL DISTRIBUTION OF SPORTSMEN

Distribution by State of Residence

By tabulating the current residence, the spatial distribution of the total population of licensed lifetime sportsmen by state of residence was developed. Figure 1 and Appendix C show the spatial distribution of all the Mississippi lifetime sportsmen licensed from 1989

to 2011 by state of residence. The majority of the MLSL holders reside in Mississippi and the surrounding states of Louisiana, Tennessee, Alabama, and Texas (Table 1). Following is a state-by-state summary of the numbers of licenses sold from 1989 to 2011:

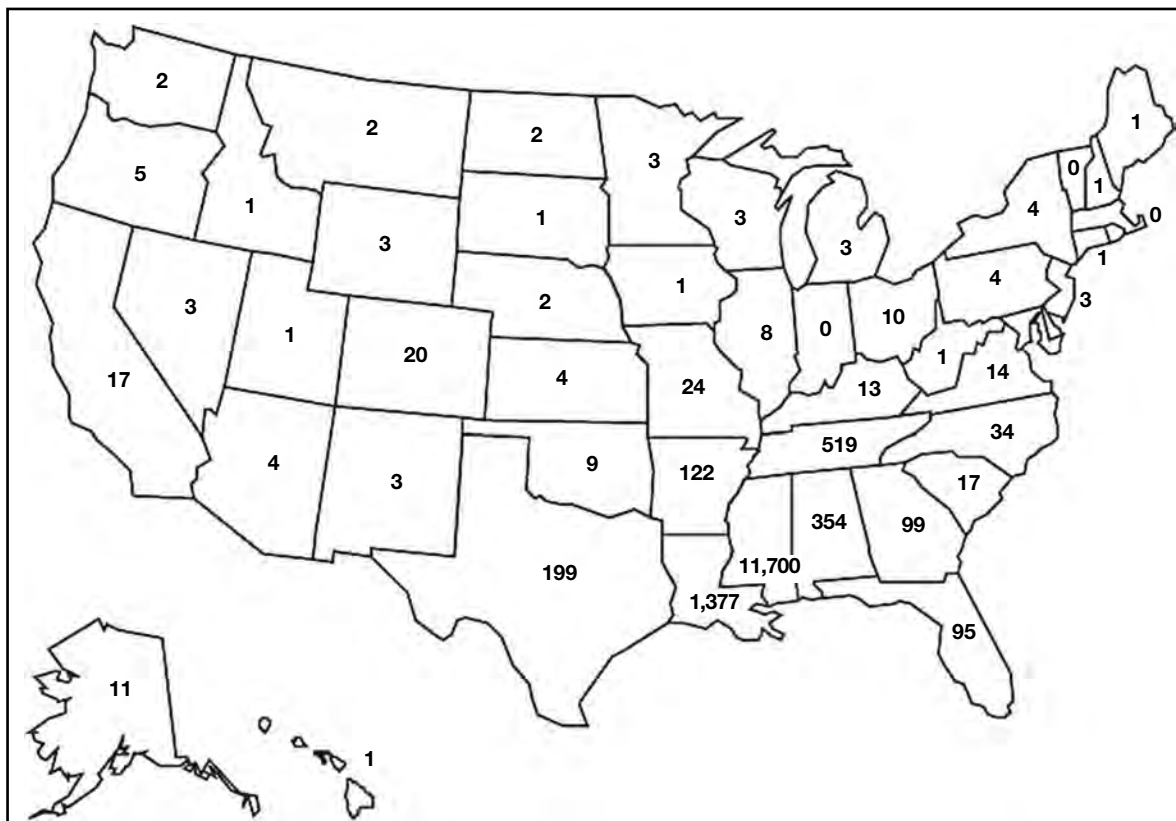


Figure 1. Map showing the spatial distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 by state of residence.

Table 1. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 and number and percent who participated in the survey.

State	Number licensed	Percent licensed	Number participating	Percent participating	Participation rate
Mississippi	11,700	79.6	3,432	72.3	29.3
Louisiana	1,377	9.4	598	12.6	43.4
Tennessee	519	3.5	233	4.9	44.9
Alabama	354	2.4	157	3.3	44.4
Texas	199	1.4	77	1.6	38.7
Other states	557	3.8	247	5.2	44.3
All states	14,706	100.0	4,744	100.0	32.3

- Mississippi, 11,700, or 79.6% of the total licenses;
- Louisiana, 1,377, 9.4% of the total;
- Tennessee, 519, 3.5% of the total;
- Alabama, 354, 2.4% of the total;
- Texas, 199, 1.4% of the total; and
- Other states, 557, 3.8% of the total.

A total of 4,744 licensed sportsmen representing about 32.3% of the total number of MLSL holders participated in the mail or online survey conducted from June 2011 to April 2012 (Table 1, Figure 2). The majority of the lifetime sportsmen who participated in the

survey resided in the state of Mississippi and surrounding states of Louisiana, Tennessee, Alabama, and Texas. Following is a state-by-state summary of survey participants:

- Mississippi, 3,432, or 72.3% of the total number of survey participants (Appendix C);
- Louisiana, 598, 12.6% of the total;
- Tennessee, 233, 4.9% of the total;
- Alabama, 157, 3.3% of the total;
- Texas, 77, 1.6% of the total; and
- Other states, 256, 5.2% of the total.



Figure 2. Map showing the spatial distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by state of residence.

Table 2. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who resided in Mississippi and number and percent who participated in the survey by the top 10 counties of residence.

County	Number licensed	Percent licensed	Number participating	Percent participating	Participation rate
Rankin	724	6.2	223	6.5	30.8
Hinds	709	6.1	198	5.8	27.9
Madison	666	5.7	221	6.4	33.2
DeSoto	499	4.3	136	4.0	27.3
Jackson	342	2.9	132	3.9	38.6
Harrison	334	2.9	106	3.1	31.7
Warren	328	2.8	88	2.6	26.8
Adams	326	2.8	89	2.6	27.3
Washington	302	2.6	78	2.3	25.8
Lee	295	2.5	82	2.4	27.8

Distribution by Mississippi County of Residence

By tabulating the population and saltwater fishing preferences by county of residence, the spatial distribution of the licensed lifetime sportsmen residing in the state of Mississippi was established. The counties of Rankin, Hinds, and Madison have the most lifetime sportsmen in the state. The top 10 Mississippi counties where lifetime sportsmen reside, number of survey participants, and participation rates are shown in Table 2. The detailed spatial distribution of the licensed Mississippi lifetime sportsmen residing in the state is shown Figure 3. Figures 4–5 show the number and percent of resident Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by county of residence.

Distribution by License Type

The total population of MLSL holders who bought the 14 different types of sportsmen licenses from 1989

to 2011 was tabulated into the three basic types of lifetime sportsmen licenses (Table 3). There were 6,316 older sportsmen who bought the R1 license for lifetime sportsmen age 13 and over; this number was 43% of the total holders of this type of MLSL. There were 6,420 younger sportsmen who bought the R2 license for lifetime sportsman age birth through 12—43.7% of the total. There were 1,969 residents of other states who bought N2 or nonresident Mississippi native lifetime licenses—13.4% of the total.

Distribution by License Year

The annual number of MLSL sold went through two major long-term trends starting with an increasing trend from 189 licenses sold in 1989 to 1,730 licenses sold in 2001. However, the annual number of license sales significantly declined starting in 2002. The annual sales of licenses ranged from 376 to 541 between 2002 and 2010 (Figure 6).

Table 3. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 and number and percent who participated in the survey by license type.

License type	Number licensed	Percent licensed	Number participating	Percent participating	Participation rate
R1 or lifetime sportsman age 13 and over	6,316	43.0	2,095	44.2	33.2
R2 or lifetime sportsman birth through 12	6,420	43.7	1,761	37.1	27.4
N2 or nonresident Mississippi native lifetime	1,969	13.4	887	18.7	45.0
All licenses	14,705	100.0	4,743	100.0	32.3

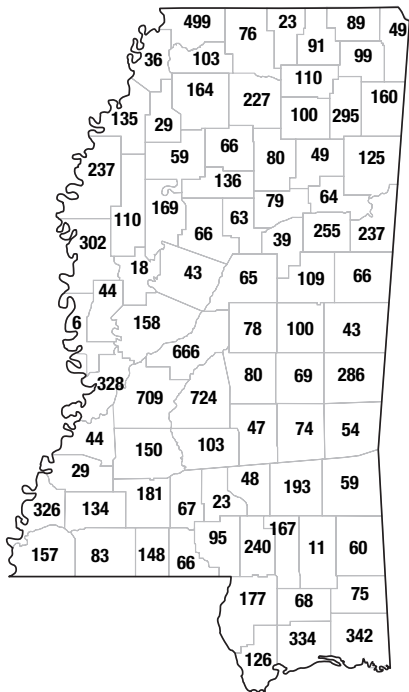


Figure 3. Map showing the spatial distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who were residing in the state of Mississippi by county of residence.

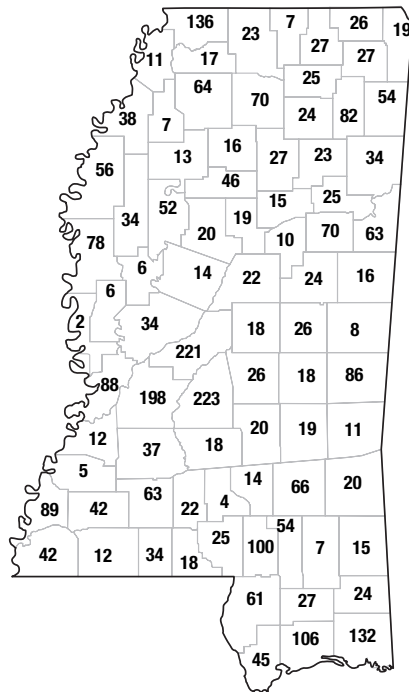


Figure 4. Map showing the spatial distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and were residing in the state of Mississippi by county of residence.

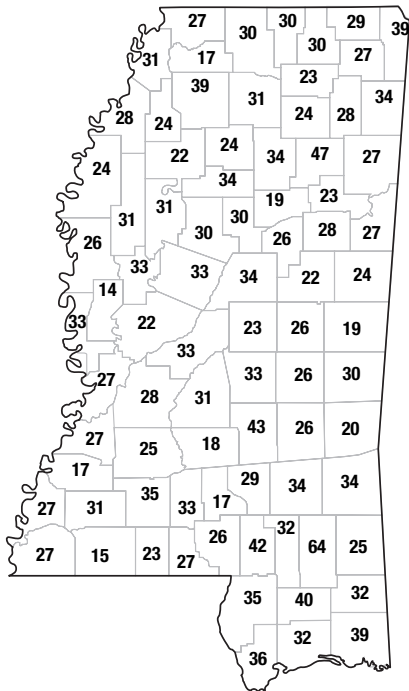


Figure 5. Map showing the percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and were residing in the state of Mississippi by county of residence.

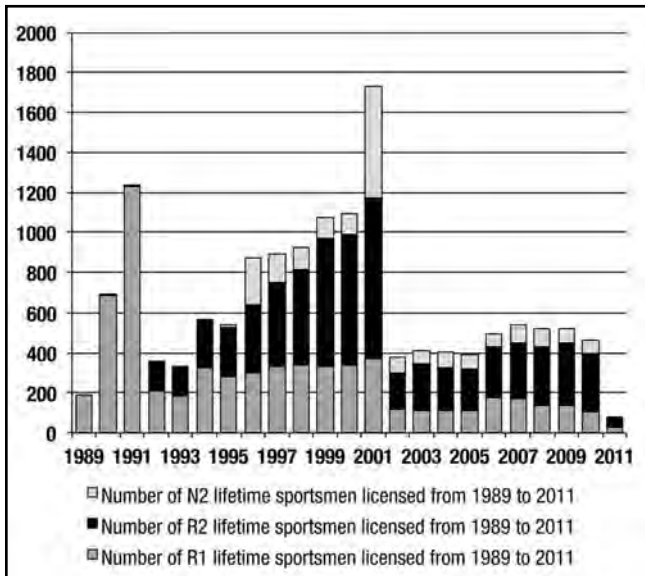


Figure 6. Annual number of Mississippi lifetime sportsmen licenses sold by license type and license year from 1989 to 2011.

CHARACTERISTICS OF PARTICIPATING SPORTSMEN

Distribution by Age Group

The lifetime sportsmen were asked to provide their birth years. Overall, 79.7% of those sportsmen who participated in the survey were between 16 and 64 years old. By state law, “each resident of the State of Mississippi ages 16 to 64, fishing in the fresh or marine waters of Mississippi, including lakes and reservoirs but not to include privately owned ponds and streams shall be required to buy a fishing license.” Among the sportsmen who participated in the survey, the largest group with 18.9% was 30–39 years old. The smallest group (2.6%) was 70 or older. About 21% of the participating sportsmen were 18 and younger. The number and percent distribution of the sportsmen in the other age groups are shown in Table 4.

Distribution by Employment Status

Out of the 4,744 survey participants, 2,231 sportsmen or 47% chose “employed” when asked about their employment status (Table 5). The next highest answer chosen was “student” with 22.9% or 1,087 sportsmen. The response yielding the smallest percentage was “unemployed.”

Distribution by Personal Income

The sportsmen were asked about their annual personal income from all sources before income taxes in 2010. The largest group—29.2% or 1,383 respondents—chose not to answer the question (Table 6). The next two highest responses were from those who earned \$50K–\$75K and \$75K–\$100K per year with 10.4% and 10.8% of the participating sportsmen, respectively. The lowest response was from respondents who reported earning \$10K–\$20K, with 1.9% of the total.

Distribution by Race

The participants also were asked about their race or ethnicity. The overwhelming majority of sportsmen—4,497 or 94.8% of survey participants—were “Caucasian or White” (Table 7). The smallest group was “Hispanic” with only a 0.1% response.

Distribution by Educational Attainment

The lifetime sportsmen were asked about their highest level of formal education. The largest group with 44.3% selected “Four-year college degree or higher” (Table 8). Only 38 respondents (0.8%) selected “Never attended school or kindergarten.”

Table 4. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by age group.

Age group	Number participating	Percent participating
12 years old and below	255	5.4
13-18 years old	738	15.6
21-29 years old	663	14.0
30-39 years old	898	18.9
40-49 years old	681	14.4
50-59 years old	715	15.1
60-69 years old	482	10.2
70 years old and above	121	2.6
No answer	191	4.0
All age groups	4,744	100.0

Table 5. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by employment status.

Employment status	Number participating	Percent participating
Student	1,087	22.9
Retired	380	8.0
Self-employed	739	15.6
Employed	2,231	47.0
Unemployed	75	1.6
No answer	232	4.9
All employment status	4,744	100.0

Table 6. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by income group.

Income group	Number participating	Percent participating
Less than \$10,000	463	9.8
\$10,000 to \$20,000	88	1.9
\$20,000 to \$30,000	250	5.3
\$30,000 to \$40,000	176	3.7
\$40,000 to \$50,000	408	8.6
\$50,000 to \$75,000	493	10.4
\$75,000 to \$100,000	513	10.8
\$100,000 to \$150,000	464	9.8
\$150,000 to \$250,000	229	4.8
More than \$250,000	277	5.8
No answer	1,383	29.2
All income groups	4,744	100.0

Table 7. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by racial background.

Racial background	Number participating	Percent participating
Caucasian or White	4,497	94.8
African American or Black	23	0.5
Hispanic	5	0.1
Asian or Pacific Islander	15	0.3
Native American	19	0.4
Others	19	0.4
No answer	166	3.5
All racial groups	4,744	100.0

Table 8. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by educational attainment.

Educational attainment	Number participating	Percent participating
Never attended school or attended kindergarten	38	0.8
Grades 1 through 8 (Elementary)	413	8.7
Grades 9 through 11 (Some high school)	276	5.8
Grade 12 or GED (High school graduate)	483	10.2
Some college, associate degree, or technical school	1,156	24.4
Four-year college degree or higher	2,101	44.3
No answer	277	5.8
All educational levels	4,744	100.0

SALTWATER FISHING PREFERENCES OF SPORTSMEN

Preferences by State of Residence

The lifetime sportsmen who responded to the survey were asked about their fishing activities in 2009, 2010, 2011, and 2012 (Table 9, Appendix F). Fewer lifetime sportsmen went saltwater fishing in 2010 (20.8%) as compared with 2009 (22.6%). An increasing overall saltwater fishing preference was reported in 2011 (24.7%) and 2012 (27%) as compared with previous years. In all but one of the five states where most Mississippi lifetime sportsmen resided (Louisiana, 13.6%), participating sportsmen reported less saltwater fishing activities in 2010. In 2011, the percent of participating sportsmen who went saltwater fishing in these five states was generally higher than in 2010 and 2009. In 2012, lifetime sportsmen residing in Mississippi had the highest fishing participation (31%).

Fishing Preferences by License Type

The participating lifetime sportsmen were divided into groups based on their license type and their fishing activities in 2009, 2010, 2011, and 2012 (Table 10, Appendix G). Each license type had a decrease in saltwater fishing activities in 2010. Also, after 2010, each license type had an increase in fishing activities. The license type that had the most fishing activity was the R1 or lifetime sportsman age 13 and over in 2012 (29.9%). The N2 or nonresident Mississippi native lifetime license had the lowest activity in all 4 years.

Fishing Preferences by License Year

The year the lifetime sportsmen bought their licenses was compared with their fishing activities in 2009, 2010, 2011, and 2012 (Figure 7, Appendix H).

Table 9. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater recreational fishing by state of residence.

State of residence	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Mississippi	3,432	26.2	24.3	28.8	31.0
Louisiana	598	13.2	13.6	15.3	16.7
Tennessee	233	9.1	6.1	8.7	12.5
Alabama	157	23.6	19.9	23.7	26.3
Texas	77	11.8	7.9	9.2	10.5
All states	4,743	22.6	20.8	24.7	27.0

Table 10. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater recreational fishing by license type.

License type	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
R1 - lifetime sportsman age 13 and over	2,095	24.8	22.3	26.7	29.9
R2 - lifetime sportsman birth through 12	1,761	24.0	22.8	27.0	27.9
N2 - nonresident Mississippi native lifetime	887	14.5	13.4	15.0	18.0
All sportsman licenses	4,743	22.6	20.8	24.7	26.9

Based on the year the sportsmen bought their licenses, 2012 had the most saltwater fishing activity. Fishing activities in 2010 were the lowest for all the years the lifetime sportsman license had been sold. The state and federal waters were closed for some time due to the Deepwater Horizon oil spill in April 2010 (National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling 2011), which could be the explanation for the low participation in saltwater fishing that year.

Distribution by Preferred Coastal County

The lifetime sportsmen who participated in the survey were asked which coastal county was their most preferred fishing site. Responses included “No Answer,” 67.3%; Harrison County, 13.2%; Hancock County, 9.1%; and Jackson County, 8.6% (Table 11). The remaining 1.8% chose a combination of the three counties. Those who did not answer the question were lifetime sportsmen who did not go saltwater fishing during the years covered in the survey.

Table 11. Number and percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey by most preferred coastal county.

Coastal county	Number participating	Percent participating
1 Harrison County	628	13.2
2 Hancock County	432	9.1
3 Jackson County	407	8.6
4 No answer	3,193	67.3
5 All three coastal counties	24	0.5
6 Jackson and Harrison Counties	17	0.4
7 Jackson and Hancock Counties	4	0.1
8 Hancock and Harrison Counties	39	0.8
All coastal counties	4,744	100.0

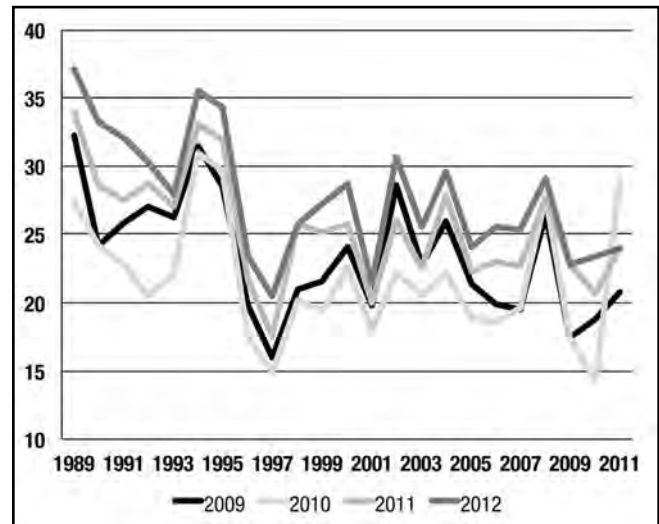


Figure 7. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater recreational fishing by year license was bought.

CHARACTERISTICS OF SALTWATER FISHERMEN

Participation by Age Group

The percent of lifetime sportsmen who participated in the survey and went saltwater recreational fishing was significantly different among the different age groups in all 4 years covered in the survey (Table 12). Sportsmen who were 21 to 29 years old in 2009–2012 reported the highest saltwater fishing participation.

Participation by Employment Status

The percent of lifetime sportsmen who participated in the survey and went saltwater recreational fishing was not significantly different by employment status (Table 13). The lifetime sportsmen were asked to indicate whether they were students, retired, self-employed, employed, or unemployed.

Participation by Personal Income

The percent of lifetime sportsmen who participated in the survey and went saltwater recreational fishing

was significantly different by annual personal income from all sources before taxes (Table 14). The highest saltwater fishing participation was reported by lifetime sportsmen with annual personal income ranging from \$10,000 to \$20,000 and \$30,000 to \$40,000.

Participation by Race

The percent of lifetime sportsmen who participated in the survey and went saltwater recreational fishing was not significantly different by racial background (Table 15). The saltwater sportsmen were asked to indicate their ethnic or racial background.

Participation by Educational Attainment

The percent of lifetime sportsmen who participated in the survey and went saltwater recreational fishing was not significantly different by educational attainment (Table 16). The lifetime sportsmen were asked to specify their highest educational attainment.

Table 12. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater fishing by age group. ¹

Age group	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
12 years old and below	254	18.1	17.7	22.7	25.9
13-18 years old	658	22.0	21.0	23.9	24.8
21-29 years old	738	27.2	26.3	30.7	32.3
30-39 years old	895	24.5	21.1	27.1	30.0
40-49 years old	681	25.0	22.6	23.5	25.9
50-59 years old	713	19.5	18.0	22.7	26.4
60-69 years old	478	19.5	17.3	20.5	23.1
70 years old and above	121	15.7	12.5	16.8	15.8
No answer	181	19.3	20.3	22.0	23.1
All age groups	4,719	22.6	20.8	24.7	27.0

¹Pearson Chi-square significant at 0.001.

Table 13. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater fishing by employment status. ¹

Employment status	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Student	1,083	22.3	21.0	24.4	26.1
Retired	379	17.9	15.3	19.7	20.8
Self-employed	736	23.2	21.2	24.1	27.4
Employed	2,225	23.4	21.4	25.9	28.3
Unemployed	75	21.3	21.3	22.7	26.7
No answer	220	22.7	22.1	25.3	26.6
All employment status	4,718	22.6	20.8	24.7	27.0

¹Pearson Chi-square not significant at 0.05.

Table 14. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater fishing by annual personal income from all sources before taxes in 2010.

Income group	Number participating in survey	Percent who went saltwater fishing in 2009 ¹	Percent who went saltwater fishing in 2010 ¹	Percent who went saltwater fishing in 2011 ¹	Percent who went saltwater fishing in 2012 ²
Less than \$10,000	461	26.0	23.9	26.5	29.3
\$10,000 to \$20,000	88	29.5	23.9	33.0	38.6
\$20,000 to \$30,000	249	25.3	23.7	27.5	27.7
\$30,000 to \$40,000	175	26.9	25.7	32.0	32.6
\$40,000 to \$50,000	408	21.1	19.1	24.6	27.0
\$50,000 to \$75,000	493	22.7	20.3	24.6	28.4
\$75,000 to \$100,000	510	25.5	25.2	27.8	31.6
\$100,000 to \$150,000	463	24.2	20.5	25.4	28.1
\$150,000 to \$250,000	228	23.2	20.1	22.7	24.5
More than \$250,000	276	19.6	16.3	21.0	23.2
No answer	1,368	19.3	18.6	21.8	23.0
All income groups	4,719	22.6	20.8	24.7	27.0

¹Pearson Chi-square significant at 0.025.

²Pearson Chi-square significant at 0.001.

Table 15. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater fishing by racial background.¹

Racial background	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Caucasian or White	4,482	22.8	21.1	25.0	27.1
African American or Black	23	8.7	8.7	8.7	17.4
Hispanic	5	0.0	0.0	0.0	20.0
Asian or Pacific Islander	15	13.3	13.3	13.3	33.3
Native American	19	21.1	26.3	31.6	36.8
Others	19	21.1	10.5	5.3	15.8
No answer	156	21.2	17.8	21.0	23.6
All racial groups	4,719	22.6	20.8	24.7	27.0

¹Pearson Chi-square not significant at 0.05.

Table 16. Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the survey and went saltwater fishing by educational attainment.¹

Educational attainment	Number participating in survey	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Never attended school or attended kindergarten	38	13.2	15.8	23.7	26.3
Grades 1 through 8 (elementary)	410	19.3	19.1	23.0	24.9
Grades 9 through 11 (some high school)	273	21.6	20.4	21.8	24.6
Grade 12 or GED (high school graduate)	479	24.0	23.4	27.2	29.0
Some college, associate degree, or technical school	1,153	24.5	22.0	25.9	28.0
Four-year college degree or higher	2,099	22.8	20.5	25.0	27.6
No answer	267	17.6	17.2	18.3	19.4
All educational levels	4,719	22.6	20.8	24.7	27.0

¹Pearson Chi-square not significant at 0.05.

SUMMARY AND RESEARCH IMPLICATIONS

As of September 1, 2010, there were 14,706 Mississippi lifetime sportsman licensed by the Mississippi Department of Fisheries, Wildlife, and Parks. Most of the lifetime sportsmen resided in Mississippi and surrounding states of Louisiana, Tennessee, Alabama, and Texas. There were 11,700 lifetime sportsmen residing in Mississippi or 79.6% of the total number of licenses sold from 1989 to 2011. The counties of Rankin, Hinds, and Madison have the most lifetime sportsmen in the state of Mississippi.

There were 6,316 older lifetime sportsmen who bought the “lifetime sportsman age 13 and over” license, or 43% of the total number of holders of this type of license. About 43.7% or 6,420 younger lifetime sportsmen bought the “lifetime sportsman age birth through 12.” About 13.4% of the total sportsman licenses were sold as “nonresident Mississippi native lifetime” licenses to 1,969 residents of other states.

All the licensed lifetime sportsmen were contacted by mail and by email to seek their participation in the survey. The lifetime sportsmen had the option of returning the mailed survey or completing the survey online. A total of 4,744 licensed lifetime sportsmen representing about 32.3% of the total number of lifetime sportsman participated in the survey conducted from June 2011 to April 2012. Most of the lifetime sportsmen who participated in

the survey resided in Mississippi and the surrounding states of Louisiana, Tennessee, Alabama, and Texas.

About 79.7% of the Mississippi lifetime sportsmen who participated in the survey were between 16 and 64 years old. By state law, this age group is required to buy a fishing license when fishing in the state waters. Less than two-thirds of the participating lifetime sportsmen reported having gainful employment, less than one-fifth were students, and the rest were retired and unemployed. Three out of 10 participating lifetime sportsmen earned less than \$50,000 per year, while four out of 10 have income above \$50,000, and the rest did not provide any income information. More than nine out of 10 of the lifetime sportsmen who completed the survey were white or Caucasian. More than two-thirds of the participating lifetime sportsmen completed some college or had associate, technical, or 4-year college degrees.

An increasing overall saltwater fishing preference was reported; 2012 had the most participation in saltwater fishing, while 2010 had the lowest. State and federal waters were closed for some time due to the Deepwater Horizon oil spill in April 2010, which could be the explanation for the low participation in saltwater fishing of that year. Preliminary individual cross-tabulation results indicated that the saltwater fishing preferences of lifetime sportsmen were significantly different among the differ-

ent age groups and levels of annual personal income. The lifetime sportsmen preferences for saltwater fishing were not significantly different by employment status, racial background, or educational attainment.

Understanding Mississippi lifetime sportsmen's participation in saltwater recreational fishing will enhance the estimation of the overall economic contribution of the economic sector to the state and the Gulf of Mexico region. The survey results will provide updates on the registry of lifetime sportsmen who went saltwater recreational fishing. A forthcoming bulletin will attempt to determine the joint influences of the sportsmen's characteristics and the properties of the license to decisions to go or not to go saltwater fishing, as well as the impacts of the travel costs, personal characteristics, budget con-

straints, properties of the sportsman license bought, and characteristics of coastal sites on the sportsman's decision on where to go saltwater fishing.

Understanding the decisions of Mississippi lifetime sportsmen on whether to participate in mail and online surveys will improve participation in future surveys among similar audiences. The information on marginal impacts of each of these survey modes will help the researcher maximize the allocation of limited survey budget in future singular or multimodal surveys. An additional paper will identify factors that jointly influenced the sportsman's decision to participate in the mail or online survey, determine the differences in their responses to mail or online surveys, and determine the marginal impacts of the different methods.

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APPENDIX A. RECRUITMENT LETTER

May 31, 2011

SURVEY OF MISSISSIPPI LIFETIME SPORTSMAN LICENSE HOLDERS

The survey of Mississippi Lifetime Sportsman License holders is conducted by the Mississippi State University, Coastal Research and Extension Center and the Mississippi Department of Marine Resources. The overall goal of this survey is to determine the saltwater fishing preferences of holders of the Mississippi Lifetime Sportsman License. The specific objectives of this survey are as follows:

1. To determine the past saltwater fishing preferences of the holders of the Mississippi Lifetime Sportsman License, and
2. To determine the future saltwater fishing preferences of the holders of the Mississippi Lifetime Sportsman License.

As a Lifetime Sportsman License holder, you are allowed to hunt and/or fish during a legal season and to take any game or fish, except waterfowl, without the purchase of additional license or permits unless required by law. The Lifetime Sportsman License allows fishermen to take fish, crabs, oysters, shrimp, and any other saltwater fish authorized to be taken under recreational permit. Due to the nature of the license, lifetime sportsmen are not covered by the annual licensing process for saltwater recreational fishing.

The results of this survey will provide primary information on the past and future saltwater fishing preferences of the holders of the Lifetime Sportsman Licenses. **Your participation in this survey will allow the state's saltwater anglers to remain exempt from federal recreational fishing license requirements.**

We truly appreciate your participation in this survey.

Very respectfully yours,

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APPENDIX B. SURVEY OF MISSISSIPPI LIFETIME SPORTSMEN

Respondent Code:

Introduction:

As a Mississippi Lifetime Sportsman License holder, you are allowed to hunt and/or fish during a legal season and to take any game or fish, except waterfowl, without the purchase of additional license or permits unless required by law. The Mississippi Lifetime Sportsman License allows fishermen to take fish, crabs, oysters, shrimp, and any other saltwater fish authorized to be taken under recreational permit.

Instructions:

If you want to complete this survey online, please go to:

<https://www.surveymonkey.com/s/Lifetimesportsman>.

If you want to complete this survey by telephone, please write your telephone number and an interviewer from the MSU-Survey Research Unit will contact you. _____.

Required Questions:

Let me ask you about your preferences for recreational saltwater fishing in Mississippi waters south of Interstate 10. If you are below 18 years old, please ask your parent or guardian to complete the survey for you.

1. Did you go saltwater fishing in Mississippi in 2009? Please circle one.	1. Yes 2. No
2. Did you go saltwater fishing in Mississippi in 2010? Please circle one.	1. Yes 2. No
3. Did/Will you go saltwater fishing in Mississippi in 2011? Please circle one.	1. Yes 2. No 3. Undecided
4. Will you go saltwater fishing in Mississippi in 2012? Please circle one.	1. Yes 2. No 3. Undecided

If you answered YES to any of Questions 1 to 4, please proceed to Question 5. Otherwise, please proceed to Questions 6 to 10.

5. In which Mississippi coastal county did you go or prefer to go saltwater fishing? Please circle the one where you went or prefer to go the MOST.	1. Harrison County 2. Hancock County 3. Jackson County 4. No answer
---	--



Optional Questions:

Let me ask you about your annual income, employment status, race or ethnicity, education and year of birth. This information will allow us to correlate saltwater fishing preferences to sportsmen socio-economic characteristics. The following questions 6-10 are optional.

6. In what year were you born? Please write the complete year of your birth.	Year: _____
7. How would you describe your current employment status? Please circle one that best describes your employment status.	1. Student 4. Employed 2. Retired 5. Unemployed 3. Self-employed 6. No answer
8. If applicable, which of the following categories best describes your personal income from all sources BEFORE taxes in the year 2010? Please circle one.	1. Less than \$10,000 2. \$10,000 to \$20,000 3. \$20,000 to \$30,000 4. \$30,000 to \$40,000 5. \$40,000 to \$50,000 6. \$50,000 to \$75,000 7. \$75,000 to \$100,000 8. \$100,000 to \$150,000 9. \$150,000 to \$250,000 10. More than \$250,000 11. No answer
9. What is your race or ethnicity? Please circle one.	1. Caucasian or White 2. Black or African American 3. Hispanic 4. Asian or Pacific Islander 5. Native American 6. Other, please specify: _____ 7. No answer
10. What was the last grade or year in school that you completed? Please circle one.	1. Never attended school or only attended kindergarten 2. Grades 1 through 8 (Elementary) 3. Grades 9 through 11 (Some high school) 4. Grade 12 or GED (High school graduate) 5. Some college, Associate degree, or technical school 6. Four-year college degree or higher 7. No answer



End of Survey

Thank you for your participation!

Please mail the completed survey to Mississippi State University, Coastal Research and Extension Center in the enclosed pre-paid envelope.

APPENDIX C

Number and percent distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the mail and online surveys by state of residence.

State of residence	Number licensed	Percent licensed	Number participating in survey	Percent participating in survey	Percent participating by state
Alaska	11	0.1	6	0.1	54.5
Alabama	354	2.4	157	3.3	44.4
Arkansas	122	0.8	67	1.4	54.9
Arizona	4	0.0	1	0.0	25.0
California	17	0.1	5	0.1	29.4
Colorado	20	0.1	5	0.1	25.0
Connecticut	1	0.0	1	0.0	100.0
Florida	95	0.6	37	0.8	38.9
Georgia	99	0.7	37	0.8	37.4
Hawaii	1	0.0	0	0.0	0.0
Iowa	1	0.0	0	0.0	0.0
Idaho	1	0.0	0	0.0	0.0
Illinois	8	0.1	4	0.1	50.0
Kansas	4	0.0	2	0.0	50.0
Kentucky	13	0.1	4	0.1	30.8
Louisiana	1,377	9.4	598	12.6	43.4
Maryland	4	0.0	1	0.0	25.0
Maine	1	0.0	0	0.0	0.0
Michigan	3	0.0	1	0.0	33.3
Minnesota	3	0.0	2	0.0	66.7
Missouri	24	0.2	15	0.3	62.5
Mississippi	11,700	79.6	3,432	72.4	29.3
Montana	2	0.0	1	0.0	50.0
North Carolina	34	0.2	14	0.3	41.2
North Dakota	2	0.0	0	0.0	0.0
Nebraska	2	0.0	0	0.0	0.0
New Hampshire	1	0.0	0	0.0	0.0
New Jersey	3	0.0	1	0.0	33.3
New Mexico	3	0.0	2	0.0	66.7
Nevada	3	0.0	3	0.1	100.0
New York	4	0.0	2	0.0	50.0
Ohio	10	0.1	6	0.1	60.0
Oklahoma	9	0.1	1	0.0	11.1
Oregon	5	0.0	3	0.1	60.0
Pennsylvania	4	0.0	3	0.1	75.0
South Carolina	17	0.1	5	0.1	29.4
South Dakota	1	0.0	1	0.0	100.0
Tennessee	519	3.5	233	4.9	44.9
Texas	199	1.4	77	1.6	38.7
Utah	1	0.0	0	0.0	0.0
Virginia	14	0.1	11	0.2	78.6
Washington	2	0.0	2	0.0	100.0
Wisconsin	3	0.0	1	0.0	33.3
West Virginia	1	0.0	1	0.0	100.0
Wyoming	3	0.0	1	0.0	33.3
All states	14,705	100.0	4,743	100.0	32.3

APPENDIX D

Number and percent distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the mail and online surveys by license type.

License type	Number licensed	Percent licensed	Number participating in survey	Percent participating in survey	Percent participating by license type
Life Non Res MS Native Son N1	1	0.0	1	0.0	100.0
Life Non Res MS Native Son N2	889	6.0	409	8.6	46.0
Life Non Res Sport N0	378	2.6	179	3.8	47.4
NR Lifetime MS Native Son	701	4.8	298	6.3	42.5
Life Res Fish Gold R4	1	0.0	0	0.0	0.0
Life Res Sport Age 13+ R1	5,059	34.4	1,705	35.9	33.7
Life Res Sport Gold R1	37	0.3	16	0.3	43.2
Lifetime Sportsman Age 13+	1,219	8.3	374	7.9	30.7
Life Res Age 2-12 R6	23	0.2	2	0.0	8.7
Life Res Fish Age 13 Under R5	51	0.3	19	0.4	37.3
Life Res Sport Age 2-12 R2	2,125	14.5	593	12.5	27.9
Life Res Sport Under 2 R3	1,855	12.6	486	10.2	26.2
Life Res Under 2 R7	7	0.0	2	0.0	28.6
Lifetime Sportsman Age 0-12	2,359	16.0	659	13.9	27.9
All sportsman licenses	14,705	100.0	4,743	100.0	32.3

APPENDIX E

Number and percent distribution of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the mail and online surveys by year license bought.

License year	Number licensed	Percent licensed	Number participating in survey	Percent participating in survey	Percent participating by license year
1989	189	1.3	62	1.3	32.8
1990	683	4.6	229	4.8	33.5
1991	1,232	8.4	382	8.1	31.0
1992	362	2.5	123	2.6	34.0
1993	330	2.2	124	2.6	37.6
1994	570	3.9	198	4.2	34.7
1995	539	3.7	172	3.6	31.9
1996	874	5.9	332	7.0	38.0
1997	893	6.1	308	6.5	34.5
1998	925	6.3	273	5.8	29.5
1999	1,075	7.3	336	7.1	31.3
2000	1,091	7.4	329	6.9	30.2
2001	1,730	11.8	565	11.9	32.7
2002	376	2.6	127	2.7	33.8
2003	412	2.8	103	2.2	25.0
2004	407	2.8	109	2.3	26.8
2005	393	2.7	113	2.4	28.8
2006	496	3.4	161	3.4	32.5
2007	541	3.7	164	3.5	30.3
2008	524	3.6	148	3.1	28.2
2009	519	3.5	184	3.9	35.5
2010	463	3.1	176	3.7	38.0
2011	81	0.6	25	0.5	30.9
All years	14,705	100.0	4,743	100.0	32.3

APPENDIX F

Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in mail and online surveys and went saltwater recreational fishing by state of residence and year of fishing.

State	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Alaska	0.0	0.0	16.7	16.7
Alabama	23.6	19.9	23.7	26.3
Arkansas	10.6	6.2	9.4	16.9
Arizona	0.0	0.0	0.0	0.0
California	0.0	0.0	0.0	20.0
Colorado	20.0	0.0	0.0	0.0
Connecticut	100.0	0.0	0.0	0.0
Florida	16.2	16.2	16.2	21.6
Georgia	16.2	10.8	13.5	13.5
Illinois	0.0	0.0	0.0	25.0
Kansas	0.0	0.0	0.0	0.0
Kentucky	0.0	0.0	0.0	0.0
Louisiana	13.2	13.6	15.3	16.7
Maryland	0.0	0.0	0.0	0.0
Michigan	0.0	0.0	0.0	0.0
Minnesota	0.0	0.0	0.0	0.0
Missouri	0.0	0.0	0.0	0.0
Mississippi	26.2	24.3	28.8	31.0
Montana	0.0	0.0	0.0	100.0
North Carolina	7.1	21.4	28.6	21.4
New Jersey	100.0	0.0	0.0	100.0
New Mexico	0.0	0.0	0.0	50.0
Nevada	0.0	0.0	0.0	0.0
New York	0.0	0.0	0.0	0.0
Ohio	0.0	0.0	16.7	0.0
Oklahoma	0.0	0.0	0.0	0.0
Oregon	33.3	33.3	33.3	33.3
Pennsylvania	33.3	33.3	33.3	33.3
South Carolina	0.0	0.0	0.0	0.0
South Dakota	100.0	0.0	0.0	0.0
Tennessee	9.1	6.1	8.7	12.5
Texas	11.8	7.9	9.2	10.5
Virginia	9.1	9.1	0.0	0.0
Washington	0.0	0.0	0.0	0.0
Wisconsin	0.0	0.0	0.0	0.0
West Virginia	0.0	0.0	0.0	0.0
Wyoming	0.0	0.0	0.0	0.0
All states	22.6	20.8	24.7	27.0

APPENDIX G

Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the mail and online surveys and went saltwater recreational fishing by license type and year of fishing.

License type	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
Life Non Res MS Native Son N1	100.0	100.0	100.0	100.0
Life Non Res MS Native Son N2	13.8	12.8	13.3	17.7
Life Non Res Sport N0	12.4	13.6	13.0	13.6
NR Lifetime MS Native SON	16.4	13.8	18.2	20.8
Life Res Age 13+ R1	25.2	22.7	27.5	30.8
Life Res Sport Gold R1	6.3	12.5	18.8	18.8
Lifetime Sportsman Age 13+	23.9	20.9	23.5	26.3
Life Res Age 2-12 R6	50.0	0.0	0.0	0.0
Life Res Fish Age 13 Under R5	47.4	36.8	47.4	42.1
Life Res Sport Age 2-12 R2	26.7	26.0	30.8	30.3
Life Res Sport Under 2 R3	20.7	19.0	22.3	24.4
Life Res Under 2 R7	50.0	50.0	50.0	50.0
Lifetime Sportsman Age 0-12	23.2	22.2	26.6	28.0
All licenses	22.6	20.8	24.7	27.0

APPENDIX H

Percent of Mississippi lifetime sportsmen licensed from 1989 to 2011 who participated in the mail and online surveys and went saltwater recreational fishing by license year and year of fishing.

License year	Percent who went saltwater fishing in 2009	Percent who went saltwater fishing in 2010	Percent who went saltwater fishing in 2011	Percent who went saltwater fishing in 2012
1989	32.3	27.4	33.9	37.1
1990	24.2	24.2	28.6	33.2
1991	25.8	22.8	27.5	32.1
1992	27.0	20.5	28.7	30.3
1993	26.2	22.1	27.0	27.9
1994	31.5	31.0	33.0	35.5
1995	28.5	29.7	32.0	34.3
1996	19.8	17.4	21.7	23.4
1997	16.0	14.9	17.5	20.5
1998	21.0	20.2	25.7	25.7
1999	21.6	19.4	25.1	27.2
2000	24.1	22.6	25.7	28.7
2001	19.8	18.0	20.0	21.4
2002	28.6	22.2	26.0	30.7
2003	22.8	20.6	22.5	25.5
2004	25.9	22.2	27.8	29.6
2005	21.4	18.8	22.3	24.1
2006	19.9	18.6	23.0	25.5
2007	19.5	19.6	22.7	25.3
2008	26.4	27.7	27.7	29.1
2009	17.4	17.4	22.8	22.8
2010	18.8	14.3	20.7	23.4
2011	20.8	29.2	24.0	24.0
All years	22.6	20.8	24.7	26.9



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