

The Economic Contribution of Marine Angler Expenditures on Fishing Trips in the United States, 2017

Sabrina J. Lovell, James Hilger, Emily Rollins, Noelle A. Olsen,
and Scott Steinback



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service

NOAA Technical Memorandum NMFS-F/SPO-201
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Suggested citation:

Lovell, Sabrina, James Hilger, Emily Rollins, Noelle A. Olsen, and Scott Steinback. 2020. The Economic Contribution of Marine Angler Expenditures on Fishing Trips in the United States, 2017. U.S. Dep. Commerce, NOAA Tech. Memo. NMFS-F/SPO-201, 80 p.

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<http://spo.nmfs.noaa.gov/tm/>

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PREFACE

Acknowledgements

Successful implementation of the 2016-2017 National Marine Recreational Fishing Expenditure Survey is the result of the participation and support of many individuals and organizations. We wish to acknowledge invaluable assistance, advice, and support from colleagues at the National Marine Fisheries Service's Office of Science and Technology, including Rita Curtis, Lauren Dolinger-Few, John Foster, Lucas Johansen, Emily Markowitz, Jeff Sauri, Scott Sauri, Tom Sminkey, and David Van Voorhees for their support with obtaining the sample frames and collection of angler intercept data, survey design, advice on statistical methods, and their overall support of the project.

We also wish to extend our gratitude to Atlantic States Marine Fisheries Commission; Gulf States Marine Fisheries Commission; Pacific States Marine Fisheries Commission; Alaska Department of Fish and Game; California Department of Fish and Wildlife; Hawaii Division of Aquatic Resources; Oregon Department of Fish and Wildlife; and Washington Department of Fish and Wildlife. We thank the two firms who provided assistance with aspects of survey administration: CIC Research, Inc. and ICF Macro, Inc. We would also like to acknowledge all the field interviewers who recruited anglers to participate in the survey in the field. Finally, we thank all of the recreational anglers who contributed their time and information in order to complete this important research effort.

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ABSTRACT

NOAA Fisheries conducted a nationwide survey of marine recreational anglers from 2016-2017 for the purposes of estimating expenditures related to marine recreational fishing trips. In this report, average trip expenditures are reported for each coastal state. The survey was conducted using in-person interviews, mail, or a mixed web/mail mode. Recreational fishers were asked general questions about their most recent fishing trip and their expenses. Expenditures are reported by mode of fishing (for-hire, private boat, and shore) and by expenditure category at the state level. In general, average expenditures on guide fees accounted for the highest share of expenditures in the for-hire mode; boat fuel accounted for the highest share for private boat mode; and auto fuel was frequently one of the highest expenditures on average for shore mode. The economic contributions of angler expenditures were estimated for each state and for the U.S. At the national level, angler trip expenditures totaled \$10.5 billion, and contributed over 167,000 jobs, \$24 billion in sales, \$14 billion in value added to GDP, and \$7.9 billion in income to the economy.

I. INTRODUCTION

Understanding the social and economic aspects of recreational fisheries is an important component of fisheries management along with biological and conservation elements. NOAA Fisheries fulfills its statutory requirements to assess the economic impacts of its policies, as outlined in the Magnuson-Stevenson Fishery Conservation and Management Act of 1996 (and as reauthorized in 2007), by conducting regional and national economic surveys on marine recreational fishers (hereafter referred to as “anglers” for consistency with other NOAA Fisheries’ survey terminology). During 2016 and 2017, NOAA Fisheries conducted the National Marine Recreational Fishing Expenditure Survey (“NES”).

The objective of the survey was to collect information on expenditures related to marine recreational fishing trips. For the purposes of the survey, marine recreational fishing was defined as fishing for finfish in the open ocean or any body of water that is marine or brackish for sport or pleasure. The survey does not capture expenditures on commercially caught and sold fish, or on recreationally caught shellfish. The NES collected data on expenditures for an angler’s most recent marine recreational fishing trip. Additional objectives include obtaining a profile of the most recent marine recreational fishing trip. The survey was the third in a series of nationwide surveys conducted by NOAA Fisheries to gather marine recreational fishing expenditures across the United States; past surveys were conducted in 2006 and 2011. The estimated average expenditures can be used in future research and analysis to estimate total angler expenditures and the economic contributions of marine recreational fishing to regional and national economies.

Section 2 of this report gives a description of the survey methodology and sampling design. In Section 3, the survey questionnaires, survey protocol and survey response rates are discussed. Section 4 presents the analytical methods used to estimate mean angler expenditures. Section 5 describes the regional-input output models used to estimate economic contributions from angler trip expenditures. Section 6 includes the results for each state and includes tables with the

average expenditures by mode and expenditure category. Appendix A contains representative survey questionnaires and cover letters.

II. SAMPLE FRAMES

The target population for the 2016/2017 NES was marine recreational anglers, 16 years of age and older, who fished in coastal states during 2016 or 2017. As there is no consistent national sample frame of marine anglers across all coastal states, different sampling strategies had to be employed to identify potential marine anglers in the different states. Three different methods of identifying and contacting anglers were used. These included an existing series of creel surveys run by NOAA Fisheries and the states, state fishing license frames, and in Hawaii, the state recreational boating license frame.

NOAA Fisheries' Marine Recreational Information Program (MRIP) is an integrated series of regional surveys coordinated by NMFS in order to provide reliable estimates of marine fishing effort, catch, and participation. The Access Point Angler Intercept Survey (APAIS) is part of the MRIP and is an ongoing intercept creel survey that is currently conducted by both NMFS and its state partners from Maine to Mississippi. The APAIS uses a multi-stage, stratified cluster sampling design that is based on fishing effort at available public access fishing sites within a coastal county. The sample is stratified by state, two-month wave, type of day (weekday or weekend) and fishing mode (for-hire boats, private boats, and shore). The primary sampling unit is a specific site-day combination within a state and wave. For each site-day, interviewers are assigned to a specific site and to a specific mode of fishing. Sampling for private/rental and party/charter modes is conducted after the angler's fishing day has been completed. Sampling for the shore mode may be conducted when at least two-thirds of the fishing for the day has been completed.¹ Sample weights that reflect the complex nature of the survey are available with the APAIS data and should be used in any statistical analysis of the data. In the APAIS, Florida is divided into East Florida, which is considered part of the NMFS' South Atlantic Region, and West Florida, which is considered part of the NMFS' Gulf of Mexico Region. This separation of the state is maintained throughout the survey design and analysis. As was done in 2006 and in 2011, an add-on questionnaire to the APAIS survey was designed to collect expenditures related to the intercepted trip. In prior years, the NES was conducted for one calendar year in every state at the same time. In 2016, however, logistical issues related to changes in the procedures for the APAIS necessitated that the states from Florida to Mississippi were completed in calendar year 2016, and states from Maine to Georgia were completed in calendar year 2017.

In Alaska, California, Louisiana, Oregon, Texas and Washington, state fishing license frames were utilized to contact anglers via a mail and/or online survey depending on the availability of angler email addresses in the license frames. In Hawaii, the absence of a state saltwater fishing license made it a bit more challenging to identify anglers so both a state boating license for recreational boats was used in addition to the National Saltwater Angler Registry that NOAA Fisheries administers for states without saltwater licenses. Since fishing patterns vary seasonally by region, the license based survey was conducted from January 2016 to December 2016 in

¹ For more information on the APAIS and other MRIP surveys, please visit <https://www.fisheries.noaa.gov/recreational-fishing-data/types-recreational-fishing-surveys>.

California, Texas, and Louisiana. To account for the shortened fishing season in Alaska, the survey was conducted from March 2016 to December 2016. In Hawaii, the survey was conducted over a shorter season from July through October 2017 but asked about trips taken in the past 12 months.

In all states besides Hawaii, NOAA Fisheries worked with the states to obtain a list of eligible licenses that were good for at least 1 day of marine fishing between January 1, 2016 and December 31, 2016. The licenses were requested in 2 month waves, so that the sample frame grew cumulatively each wave as more licenses were issued throughout the year. Therefore, a license record that was on the frame in Wave 1 (January/February) was available for selection in all waves, whereas a license record added in Wave 6 (November/December) was only available for selection in the last wave. Records that were selected in a previous wave were removed from the frame in subsequent waves. More details for each state are below.

For Alaska, Louisiana, Oregon, Texas and Washington, a stratified sampling approach was taken to account for residency, distance to the coast, and fishing license type. The first level of stratification was for residents and non-residents. Sample was allocated equally to residents and nonresidents. Within the resident stratum, license records were further stratified by distance from the coast (counties within approximately 150 miles) and license type (such as whether the license was a saltwater only fishing license, combination freshwater/saltwater license, or a combination hunting and fishing license, or some type of lifetime license). The type of eligible fishing licenses varied across states, with some states (like Texas) having a wide variety of license types, and others, relatively few types. Records in the coastal stratum and the fishing license strata were sampled at higher rates relative to the other strata. The sample allocation based on license type was in proportion to license stratum size. Within each stratum, license records with emails were sampled at a higher rate than records with no emails. The license files provided by Alaska also included both anglers who purchased licenses in 2016 as well as anglers holding a “Permanent Identification Card” (or PID card). A PID card is a lifetime license to fish in Alaska offered through the Alaska Fish and Game Department to permanent residents of Alaska, age 60 and over, who apply for it. Washington licenses did not include email addresses, so for Washington, there was no email stratum.

In California, the sample frame was based on the sample frames used for the California Recreational Fisheries Survey (CRFS). Like MRIP, the CRFS is actually a series of surveys. Details of the CRFS methodology are available on the California Department of Fish and Wildlife (CDFG) web site.² Anglers who went fishing in California during 2016 were recruited by one of three methods: 1) as part of the on-going CRFS monthly telephone survey of licensed anglers; 2) through an additional brief telephone NES screening survey of non-resident license holders; and 3) as part of the on-going monthly CRFS angler intercept survey for anglers fishing from man-made and beach/bank modes³. For each of the three recruitment methods, anglers were asked if they were willing to participate in a follow up internet/mail survey on their expenditures. If they agreed, then they were asked for both their mailing address and their email address and were included in the NES sample. The sample frame for the CRFS telephone license survey is

² <https://www.wildlife.ca.gov/Conservation/Marine/CRFS>

³ The CRFS telephone survey was conducted by CIC Research, Inc. for CDFG during 2016. CIC Research, Inc. also conducted the NES survey in California on behalf of NOAA Fisheries.

comprised of all valid license holders for that month. The license types include lifetime, annual and daily. The sample frame for the additional survey consisted of non-resident license holders. In California, because a fishing license covers both freshwater and marine fishing, anglers who were contacted by phone were only eligible for the NES if they indicated that they had taken a marine fishing trip in the prior month. The CRFS intercept survey was used to increase the number of anglers recruited from beach/bank and man-made modes. Anglers in these modes are under-represented in telephone license survey, but more importantly, use of the intercept survey enabled recruitment of man-made mode anglers who do not need a license to fish on California's piers, jetties, and other man-made fishing structures.

In Hawaii, there is no state saltwater fishing license. Anglers fishing in saltwater more than 3 miles from shore are required to register with the National Saltwater Angler Registry. This registry only captures a very small number of anglers and excludes those fishing only in state waters and those only fishing on for-hire vessels. To address these gaps in coverage, three methods were used to identify potential marine fishermen. A sample was drawn from NMFS's National Marine Angler Registry database for all anglers who registered between 2011 and 2017 and indicated that they may fish in Hawaii. Two additional samples were based on state of Hawaii boat registrations. For both 2015 and 2017, boat owners applying for a new or renewal license were asked to check a box to indicate that they used their boat for recreational or non-commercial fishing. The state provided NOAA Fisheries with these two lists which were added to the NSAR sample frame. For-hire vessels in Hawaii are required to report catch and effort data as a condition of their commercial permit. There is no sample frame of anglers on for-hire vessels as a result. Although NOAA Fisheries attempted to collect names and email/ mailing addresses from charter anglers across the islands, only 200 names were collected and 16 surveys returned. The expenditures for the charter mode in Hawaii was therefore not included in any of our results below as the sample was too small to be representative.

III. SURVEY INSTRUMENTS AND PROCEDURES

Intercept Questionnaire

As noted above, for the states where MRIP conducts the APAIS, a one-page economic add-on was added to the existing catch survey questionnaire. Information routinely collected from anglers during the APAIS include state and zip code of primary residence, number of hours fished on the interviewed trip, top two target species, type of fishing gear used, and the number of days fished in the last 2 and 12 months. The creel portion of the survey collects length and weight of all fish species retained by the angler and the species and disposition of all catch not retained by the angler. The economic questionnaire included questions on whether or not anglers were on an overnight trip, the number of nights spent away from the angler's primary residence, the total number of days spent fishing, and the primary purpose of the entire overnight trip (fishing, business, or personal). All anglers were asked to estimate their expenditures for their entire trip (not just for the days spent fishing). These included costs for auto fuel, auto rental, public transportation (airfare, bus, taxi, subway, ferry), lodging, food (from grocery stores and from restaurants), bait, ice, boat fuel, guide fees, tips to crew, fish processing, and gifts or souvenirs. Respondents were also asked to estimate the proportion of their total expenditure that was spent in the state of the fishing trip.

Mail Survey and Questionnaire

For the license frame states, fishermen were sent the survey via an email link to an online version of the survey or by mail. The mail version of the survey was one page (back and front) that included 9 questions on their most recent marine fishing trip. The online version was identical to the print version, but was formatted to be easy to read online with limited numbers of questions per page/screen and that included pop-up boxes to require some key questions to be answered or that pre-filled in certain fields. The trip related questions on the mail survey gathered the same type of information that was obtained in the economic add-on to the APAIS. ICF Macro, Inc. conducted the NES mail data collection for all license frame states, except California and Hawaii which were conducted by CIC Research, Inc.

The sampling protocol followed a modified Dillman method. If an email address was available for a respondent, then the respondent was first sent an email invitation to access a web based version of the survey using a unique user identification code and password. Respondents were asked to complete the web survey within 1 week of receiving the email. Three days later, they received a reminder email. Respondents with complete postal addresses and who did not complete the survey online within one week, were then routed into the postal mail group. Anglers were first sent a cover letter describing the purpose of the survey, a questionnaire booklet, and a business reply envelope. One week later, all anglers were sent a post card that thanked the angler for participating in the survey and included a reminder to return the survey. Three weeks after the first mailing, anglers whose surveys had not yet been received were sent a modified cover letter and another copy of the questionnaire. The first and second cover letters offered the option of completing the survey online and provided the web address to access the survey as well as a unique user name and password.

Survey versions were specific to the state, including framing of state specific questions. In the license frame states, the trip expenditures were anchored to the most recent marine trip taken. All basic trip information collected through the MRIP intercept survey was collected in the license frame surveys in order to have similar data on the most recent trip. For Hawaii, in order to reach both shore and private boat anglers using the same sample frame for Hawaii, the survey was modified slightly to ask respondents to provide information on both their most recent shore trip and most recent private boat trip. The trip expenditure categories were also modified slightly to customize the expenditures by mode of trip, and to ask about the gear used by mode rather than species targeted (as gear type is more indicative of management measures in Hawaii, rather than species type).

IV. METHODS

Survey data for different categories of trip expenditures were used to estimate average (e.g. mean) trip expenditures per angler-day by state and for each of the three modes of fishing (for-hire, private boat, and shore). The exception was Hawaii, which asked only private and shore modes. In prior years, estimates were also provided by resident or non-resident of the state where fishing occurred. Due to difficulties with breaking out angler trip estimates by resident status over the intervening years, the decision was made to provide estimates for both resident and non-

residents combined. All estimates were calculated for an angler-trip, defined as one day of fishing for one angler. On the survey, anglers were asked to estimate total expenditures for the entire trip away from their permanent residence if the trip involved an overnight stay. Data on the number of nights anglers spent away from their permanent or seasonal residence and the number of days spent fishing was collected and used to calculate expenditures per angler-trip. In order to estimate mean trip expenditures per day, total reported expenditures were either divided by the number of days spent fishing (for all direct fishing related expenditures) or the number of nights away (e.g. auto fuel, other transportation, lodging, meals, and gifts).

Anglers were asked to report what they personally spent, including what they spent on others. They were asked not to include expenses that others paid on their behalf. If they did not have expenditures in a given category, but did have some in others, they were asked on the mail survey to record zero rather than leaving the item blank. On the web survey, zeros were automatically filled in for the angler if they entered a non-zero expenditure in at least one other category. On the mail and web survey questionnaire, anglers could check a box that indicated they had no expenditures in any category. Missing values for trip expenditure categories were replaced with zero if an angler reported a non-zero dollar amount for at least one other trip expenditure category. The survey also asked anglers to estimate the percentage of trip expenditures that were spent in the state of the most recent fishing trip. These percentages were multiplied by each trip expenditure category to calculate the final expenditure per respondent spent in the state of the trip. If a percentage was left blank, it was replaced with either 100% in the case of residents, or for non-residents, a statewide average percentage (based on non-resident records only).

Mean trip expenditures were estimated by accounting for both the survey design of the underlying sample and the appropriate sample weights. For the intercept-based sample, the sample weights were based on MRIP weights adjusted for anglers over 16 years of age and for non-response to the economic add-on survey (Foster, 2012). In the APAIS, sampling quotas for a given APAIS stratum (state, mode, wave) are developed according to expected fishing effort for that stratum. Expected fishing effort is based on historical effort estimates for that same stratum. The MRIP sample weights are designed so that each intercept in a particular stratum is weighted based on the estimated total effort in that stratum, and therefore, summing over the sample weights will equal total effort. For the license frame samples, sample weights were calculated based on the sampling strata and sampling design for each license frame state. These base survey weights, either from the intercept or license frame samples, were further adjusted in the process of estimating mean trip expenditures in order to account for item non-response to the full set of trip expenditure questions.

Some anglers answered most of the trip questions but left the trip expenditure questions as a whole missing and did not check the box that indicated they had no expenditures. In these cases, their expenditures were considered missing, and sample weights were adjusted for non-response within their appropriate sampling strata by dividing the base weights by the inverse of the response rate within the same strata. This method assumes that anglers who did not respond had the same expenditure characteristics as those who did respond, within the same survey strata, and that there is random non-response within strata.

Outliers within each expenditure category and survey strata (i.e., state/mode) were removed from the data set. The decision rule for outliers allowed strata with low variances to remain intact while strata with high variances had outliers removed. Initial weighted mean estimates for all expenditures categories were generated using the *Proc Survey means* procedure in SAS (SAS Version 9.3, 2011) and any state-mode combination with a proportion of standard error (PSE) greater than 20% had the upper 1% of its distribution truncated. After removing outliers using this procedure, visual inspection and comparison of the data across categories and states was done to identify any remaining outliers. In a few cases, professional judgement was used to remove outliers in situations where the PSE was under 20% for that expenditure category for a specific state-mode.

To calculate total expenditures by state and mode, the number of trips in each state/mode was multiplied by the corresponding total average expenditure per angler-day. Estimates of the number of trips by state/mode were obtained from the MRIP effort estimates for the states from Maine to Alabama and Hawaii, Louisiana Creel survey, Texas Parks and Wildlife Department, California Department of Fish and Wildlife, and the Pacific States Marine Fisheries Commission, (Alaska, Oregon, and Washington). Note that for Hawaii, no estimates of for-hire trips are available from MRIP, so total expenditures were not calculated. For Texas, no estimates of shore effort was available so total shore expenditures were not calculated.

V. ECONOMIC CONTRIBUTION ANALYSIS

The regional input-output model used in this report generates four different metrics, commonly referred to as impacts or economic contributions, for assessing the contributions to a region's economy from expenditures on marine recreational fishing. The different measures are:

- Output is the gross value of sales by regional businesses affected by an activity. In the rest of the document, the terms “sales impacts” and “output impacts” are used interchangeably.
- Labor income includes personal income (wages and salaries) and proprietors' income (income from self-employment).
- Value-added is the contribution made to the gross domestic product in a region.
- Employment is specified on the basis of full-time and part-time jobs. There is significant part-time and seasonal employment in commercial and recreational fishing and many other industries.

The first three types are measured in terms of dollars, whereas employment impacts are measured in terms of number of jobs. Additionally, the four categories of impacts are not independent and it is important to note that adding them together would result in some double counting of impacts. Throughout this report, the results of the input-output analyses are referred to as “economic contributions” rather than “economic impacts”. The distinction is that contributions relate to the status quo of activity, whereas impacts often are meant to refer to the change in the status quo.

The economic contributions of angler expenditures extend beyond the direct purchases anglers make on fishing trips. The effects of these expenditures can be classified as: (1) direct, (2)

indirect, or (3) induced. Direct effects occur when anglers spend money at retail and service oriented fishing businesses. Indirect effects occur when recreational fishing retail and service sectors purchase business supplies from wholesale trade businesses and manufacturers, and pay operating expenditures. These secondary industries, in turn, purchase additional supplies and this cycle of industry to industry purchasing continues until all indirect effects are derived from outside the region of interest (Steinback, Gentner, and Castle 2004). Payments for goods and services produced outside of the study area (i.e., outside state lines) are excluded because these effects impact businesses located in other regions. Induced effects occur when employees in the direct and indirect sectors make purchases from retailers and service establishments in the normal course of household consumption. The summation of the direct, indirect, and induced multiplier effects represent the total economic contributions or impacts generated from marine sportfishing expenditures to the overall regional economy. The commercially available regional input-output model called IMPLAN (Minnesota IMPLAN Group, Inc., 2018) was used to estimate the economic contributions of marine recreational fishing. The IMPLAN software is a widely used, nationally recognized tool. For this report, IMPLAN Version 3 software was used in combination with IMPLAN 2018 base year data, which provides detailed purchasing information for 536 industrial and retail sectors.

In order to accurately analyze the economic impacts from angler expenditures, it was necessary to match the type of expenditure with a corresponding industry or retail sector in IMPLAN. Angler expenditure categories from the 2016/2017 NES were allocated to IMPLAN sectors based on the sectoring scheme shown in Table 3. Expenditure categories that included more than one IMPLAN sector were not aggregated to avoid the biases associated with aggregating. Instead, the expenditure in the category was distributed to individual IMPLAN sectors based on the proportion of final household demand in each sector in each state. Expenditures on parking and site access fees were allocated across sectors using IMPLAN's *State/Local Government NonEducation Institution Spending Pattern* database. Expenditures on groceries were allocated across sectors using IMPLAN's *PCE by NIPA category for food purchased off premises* database. Note that impact estimates for a specific state measure only the impacts that occurred within that state due to marine recreational fishing expenditures in that state. Impacts that occur across states are captured in the aggregate U.S. model.

To calculate total economic contributions, separate state models and a U.S. model were created in IMPLAN. Total expenditures in each state/mode were then allocated to the correct IMPLAN sector by category and entered into the corresponding state model. For the U.S. level model, total expenditures by category were summed across all states and entered into the U.S. national model as average expenditures at the U.S. model were not calculated.

VI. RESULTS AND DISCUSSION

In the states where the MRIP APAIS survey was conducted, a total of 86,891 anglers were invited to participate in the economic add-on survey (Table 1). In these states, there were 65,684 complete or partially complete add-on surveys (76.0%). Response rates to the add-on ranged from 55% (Massachusetts and North Carolina) to 93% (New York).

A total of 52,245 licensed anglers were contacted via email or postal mail in states where the APAIS was not conducted. In states with the email/mail protocol 9,123 surveys were returned complete or partially complete (17%). California had the highest response rate (34%). States with the lowest response rates included Texas (12%) and Louisiana (11%). A lower response rate was expected in states in these states where a license frame was used as the sample frame, given that licenses were not exclusive to marine fishing.

Across all states and survey modes, the response rate was 54% with 74,807 surveys completed. Response rates were within the ranges of prior surveys done in 2011 and 2006.

The results of the survey are presented in the following pages. For each state, a brief summary of the results is provided. This is followed by two tables for each fishing mode; the first table reports the economic contributions and the second table provides the average (e.g. mean) trip expenditure per angler day by expense category. Example survey forms and letters are provided at the end of the state tables, in Appendix A. In 2011, a non-response follow-up survey was conducted, but based on the results of that survey which showed no systematic bias in non-respondents, a non-response survey was not done in 2016/2017 for the mail and web survey states.

Marine recreational fishing trips in the United States supported over 167, 000 full or part-time jobs, and contributed \$24 billion in sales, \$7.9 billion in income, and \$14 billion in gross domestic product (GDP) to the state's economy (Table 4).

Table 1: Response Rates by State

State	Surveys Initiated	Surveys Completed	Response rate	Mode
Alabama	2,362	1,674	71%	Intercept
Connecticut	3,383	2,913	86%	Intercept
Delaware	3,225	2,676	83%	Intercept
East Florida	7,298	5,854	80%	Intercept
Georgia	1,878	1,713	91%	Intercept
Maine	1,439	962	67%	Intercept
Maryland	5,205	4,704	90%	Intercept
Massachusetts	4,245	2,339	55%	Intercept
Mississippi	2,212	1,661	75%	Intercept
New Hampshire	1,728	1,559	90%	Intercept
New Jersey	3,586	3,046	85%	Intercept
New York	3,640	3,398	93%	Intercept
North Carolina	15,962	8,757	55%	Intercept
Rhode Island	3,459	2,613	76%	Intercept
South Carolina	3,888	3,053	79%	Intercept
Virginia	4,138	2,641	64%	Intercept
West Florida	19,243	16,121	84%	Intercept
Total Intercept	86,891	65,684	76%	-
Alaska	4,411	1,011	23%	Mail/email
California	10,792	3,643	34%	Mail/email
Hawaii	8,213	1,009	12%	Mail/email
Louisiana	9,092	1,007	11%	Mail/email
Oregon	7,199	861	12%	Mail/email
Texas	6,144	708	12%	Mail/email
Washington	6,394	884	14%	Mail/email
Total web/mail	52,245	9,123	17%	-
Total US	139,136	74,807	54%	-

Table 2: Number of Angler Trips, 2017

State	Mode	Total Trips	Percent Adult	Adult Trips
Alabama	For-Hire	93,314	87%	81,183
Alabama	Private Boat	2,540,490	98%	2,489,680
Alabama	Shore	5,859,527	91%	5,332,169
Alaska	For-Hire	250,380	88%	220,334
Alaska	Private Boat	487,735	94%	458,471
Alaska	Shore	73,768	89%	65,654
California	For-Hire	636,000	88%	559,680
California	Private Boat	533,000	94%	501,020
California	Shore	2,373,000	89%	2,111,970
Connecticut	For-Hire	35,712	88%	31,427
Connecticut	Private Boat	1,336,683	97%	1,296,583
Connecticut	Shore	2,564,867	85%	2,180,137
Delaware	For-Hire	14,035	88%	12,350
Delaware	Private Boat	679,843	95%	645,851
Delaware	Shore	1,296,891	92%	1,193,140
East Florida	For-Hire	249,800	88%	219,824
East Florida	Private Boat	11,755,735	92%	10,815,276
East Florida	Shore	28,397,989	91%	25,842,170
Georgia	For-Hire	27,701	67%	18,560
Georgia	Private Boat	1,569,086	92%	1,443,559
Georgia	Shore	3,027,516	78%	2,361,462
Hawaii	Private Boat	260,865	100%	260,865
Hawaii	Shore	1,019,019	100%	1,019,019
Louisiana	For-Hire	178,723	88%	157,276
Louisiana	Private Boat	1,639,814	94%	1,541,425
Louisiana	Shore	489,815	89%	435,935
Maine	For-Hire	15,932	83%	13,224
Maine	Private Boat	649,523	90%	584,571
Maine	Shore	1,082,113	88%	952,259
Maryland	For-Hire	211,101	94%	198,435
Maryland	Private Boat	3,414,605	94%	3,209,729
Maryland	Shore	4,717,129	85%	4,009,559
Massachusetts	For-Hire	224,249	91%	204,067
Massachusetts	Private Boat	3,389,625	96%	3,254,040
Massachusetts	Shore	4,160,993	92%	3,828,113
Mississippi	For-Hire	20,642	95%	19,610
Mississippi	Private Boat	1,605,632	98%	1,573,519
Mississippi	Shore	3,225,480	97%	3,128,715
New Hampshire	For-Hire	51,005	91%	46,415
New Hampshire	Private Boat	429,629	94%	403,851
New Hampshire	Shore	491,746	85%	417,984
New Jersey	For-Hire	215,364	91%	195,981
New Jersey	Private Boat	4,848,351	96%	4,654,417
New Jersey	Shore	7,224,625	92%	6,646,655
New York	For-Hire	258,989	91%	235,680
New York	Private Boat	7,372,066	93%	6,856,022
New York	Shore	9,002,927	87%	7,832,547
North Carolina	For-Hire	149,438	90%	134,494

State	Mode	Total Trips	Percent Adult	Adult Trips
North Carolina	Private Boat	5,044,731	94%	4,742,047
North Carolina	Shore	17,258,107	92%	15,877,459
Oregon	For-Hire	65,000	88%	57,200
Oregon	Private Boat	395,000	94%	371,300
Oregon	Shore	233,000	89%	207,370
Rhode Island	For-Hire	35,337	92%	32,510
Rhode Island	Private Boat	774,416	92%	712,463
Rhode Island	Shore	1,508,013	91%	1,372,292
South Carolina	For-Hire	87,594	81%	70,951
South Carolina	Private Boat	3,136,086	92%	2,885,199
South Carolina	Shore	6,165,228	82%	5,055,487
Texas	For-Hire	191,404	88%	168,435
Texas	Private Boat	952,829	94%	895,659
Texas	Shore	NA	89%	NA
Virginia	For-Hire	43,684	92%	40,189
Virginia	Private Boat	2,547,984	97%	2,471,544
Virginia	Shore	4,157,484	94%	3,908,035
Washington	For-Hire	83,000	88%	73,040
Washington	Private Boat	1,012,000	94%	951,280
Washington	Shore	513,000	89%	456,570
West Florida	For-Hire	772,230	91%	702,729
West Florida	Private Boat	18,025,116	93%	16,763,358
West Florida	Shore	23,042,831	87%	20,047,263

Table 3: IMPLAN Sectoring Scheme

Expenditure Category	IMPLAN 536 Sector(s)	IMPLAN Type
Airfare	408	Industry
Auto Fuel	156	Industry/Margins
Auto Rental	442	Industry
Bait	17	Industry/Margins
Boat Fuel	156	Industry/Margins
Boat Rental	443	Industry
Charter Crew Trips	496	Industry
Charter Fees	496	Industry
Fish Processing	93	Industry
Food – Groceries	Various	Household PCE Vector
Food – Restaurants	501, 502, 503	Industry
Gifts and Souvenirs	405	Industry/Margins
Ice	107	Industry/Margins
Lodging	499, 500	Industry
Parking and Site Access Fee	Various	State/Local Govt NISP
Public Transportation	412	Industry
Tournament Fees	496	Industry

Table 4: Total Economic Impacts Generated in the United States in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$ 1,243,022	24,221	\$2,948,145	\$981,981	\$1,678,969
Private Boat	\$4,199,394	59,362	\$9,654,003	\$3,029,178	\$5,480,283
Shore	\$5,009,745	83,535	\$11,821,369	\$3,924,656	\$6,863,200
Total Trip	\$ 10,452,161	167,118	\$24,423,517	\$7,935,815	\$14,022,452

State Results

Alabama

In Alabama recreational anglers spent an average of \$543.66 per angler day on for-hire trips, \$68.18 on private or rental boat trips, and \$95.79 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$290.58 (s.e. \$40.57) in expenditures, 53% of the mode total; lodging with \$118.25 (s.e. \$20.32) in expenditures, 22% of the mode total; and restaurants with \$40.50 (s.e. \$5.93) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$21.92 (s.e. \$3.04) in expenditures, 32% of the mode total; bait with \$13.20 (s.e. \$1.09) in expenditures, 19% of the mode total; and auto fuel with \$11.91 (s.e. \$1.36) in expenditures, 17% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$38.13 (s.e. \$6.61), 40% of the mode total; restaurants with \$17.98 (s.e. \$2.93), 19% of the mode total; and auto fuel with \$13.48 (s.e. \$1.06), 14% of the mode total.

Marine recreational fishing trips in Alabama supported 9,676 full or part-time jobs, and contributed \$911 million in sales, \$265 million in income, and \$538 million in gross domestic product (GDP) to the state's economy.

Table AL_ 1: Total Economic Impacts Generated in Alabama in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$44,136	770	\$67,011	\$21,017	\$36,848
Private Boat	\$169,746	1,641	\$168,481	\$42,379	\$108,884
Shore	\$510,768	7,265	\$675,278	\$201,765	\$392,089
Total Trip	\$724,651	9,676	\$910,770	\$265,161	\$537,821

Table AL_ 2: Alabama Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$20.50	\$2.56	209
	Auto rental	\$0.44	\$0.32	203
	Transportation - air & public	\$0.14	\$0.09	206
	Lodging	\$118.25	\$20.32	206
	Groceries	\$32	\$4.81	207
	Restaurants	\$40.50	\$5.93	209
	Bait	\$1.12	\$0.65	204
	Ice	\$2.63	\$0.81	208
	Parking	\$0.06	\$0.04	206
	Guide fees	\$290.58	\$40.57	206
	Crew tips	\$33.18	\$7.93	208
	Fish processing	\$0	\$0	209
	Tournament fees	\$0	\$0	210
	Gifts	\$4.26	\$0.96	205
	For-Hire trip total	\$543.66	-	-
Private Boat	Auto fuel	\$11.91	\$1.36	773
	Auto rental	\$0	\$0	761
	Transportation - air & public	\$0	\$0	768
	Lodging	\$2.41	\$0.82	760
	Groceries	\$10.13	\$1.25	773
	Restaurants	\$4.30	\$1.01	769
	Bait	\$13.20	\$1.09	771
	Ice	\$3.89	\$0.44	771
	Parking	\$0.41	\$0.10	769
	Boat fuel	\$21.92	\$3.04	771
	Boat rental	\$0	\$0	761
	Fish processing	\$0	\$0	770
	Tournament fees	\$0	\$0	763
	Gifts	\$0.01	\$0.01	762
	Private Boat trip total	\$68.18	-	-
Shore	Auto fuel	\$13.48	\$1.06	361
	Auto rental	\$0.22	\$0.19	358
	Transportation - air & public	\$0	\$0	357
	Lodging	\$38.13	\$6.61	359
	Groceries	\$13.33	\$1.65	361
	Restaurants	\$17.98	\$2.93	361
	Bait	\$6.90	\$0.99	355
	Ice	\$1.18	\$0.19	357
	Parking	\$2.58	\$0.46	360
	Fish processing	\$0	\$0	356
	Tournament fees	\$0	\$0	357
	Gifts	\$1.99	\$0.75	359
	Shore trip total	\$95.79	-	-

Alaska

In Alaska recreational anglers spent an average of \$950.67 per angler day on for-hire trips, \$270.16 on private or rental boat trips, and \$121.20 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$454.26 (s.e. \$57.95) in expenditures, 48% of the mode total; lodging with \$127.74 (s.e. \$24.77) in expenditures, 13% of the mode total; and transportation - air with \$101.51 (s.e. \$17.25) in expenditures, 11% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$65.65 (s.e. \$6.34) in expenditures, 24% of the mode total; groceries with \$53.15 (s.e. \$6.98) in expenditures, 20% of the mode total; and auto fuel with \$31.90 (s.e. \$3.43) in expenditures, 12% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$32.25 (s.e. \$5.12), 27% of the mode total; groceries with \$21.81 (s.e. \$3.41), 18% of the mode total; and lodging with \$19.58 (s.e. \$4.94), 16% of the mode total.

Marine recreational fishing trips in Alaska supported 4,009 full or part-time jobs, and contributed \$448 million in sales, \$150 million in income, and \$259 million in gross domestic product (GDP) to the state's economy.

Table AK_ 1: Total Economic Impacts Generated in Alaska in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$209,465	3,040	\$301,617	\$104,574	\$169,395
Private Boat	\$123,861	901	\$137,271	\$42,124	\$83,530
Shore	\$7,957	68	\$9,096	\$3,045	\$5,654
Total Trip	\$341,283	4,009	\$447,984	\$149,743	\$258,579

Table AK_ 2: Alaska Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$16.27	\$2.30	339
	Auto rental	\$25.37	\$4.88	339
	Transportation - public	\$1.42	\$0.41	337
	Transportation - air	\$101.51	\$17.25	339
	Lodging	\$127.74	\$24.77	335
	Groceries	\$26.41	\$3.12	336
	Restaurants	\$62.97	\$9.26	339
	Bait	\$0.49	\$0.16	338
	Ice	\$2.09	\$0.88	337
	Parking	\$3.65	\$0.58	338
	Guide fees	\$454.26	\$57.95	337
	Crew tips	\$54.14	\$4.85	336
	Fish processing	\$58.59	\$9.88	337
	Tournament fees	-	-	-
	Gifts	\$15.76	\$3.05	339
	For-Hire trip total	\$950.67	-	-
Private Boat	Auto fuel	\$31.90	\$3.43	406
	Auto rental	\$1.78	\$0.67	400
	Transportation - public	\$2.10	\$1.19	406
	Transportation - air	\$19.57	\$3.20	398
	Lodging	\$28.18	\$8.07	404
	Groceries	\$53.15	\$6.98	406
	Restaurants	\$20.66	\$3.26	407
	Bait	\$14.86	\$2.16	413
	Ice	\$4.67	\$1.18	407
	Parking	\$9.47	\$1.15	400
	Boat fuel	\$65.65	\$6.34	408
	Boat rental	\$2.30	\$0.96	407
	Fish processing	\$12.77	\$3.97	409
	Tournament fees	-	-	-
	Gifts	\$3.10	\$0.64	402
	Private Boat trip total	\$270.16	-	-
Shore	Auto fuel	\$32.25	\$5.12	128
	Auto rental	\$3.61	\$1.80	124
	Transportation - public	\$0.19	\$0.12	128
	Transportation - air	\$9.52	\$2.77	124
	Lodging	\$19.58	\$4.94	127
	Groceries	\$21.81	\$3.41	126
	Restaurants	\$15.57	\$4.67	128
	Bait	\$4.09	\$0.99	125
	Ice	\$3.05	\$0.59	130
	Parking	\$8.96	\$2.10	126
	Fish processing	\$1.13	\$0.54	127
	Tournament fees	-	-	-
	Gifts	\$1.44	\$0.47	127
	Shore trip total	\$121.20	-	-

California

In California recreational anglers spent an average of \$377.97 per angler day on for-hire trips, \$187.34 on private or rental boat trips, and \$86.82 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$202.35 (s.e. \$7.62) in expenditures, 54% of the mode total; crew tips with \$30.69 (s.e. \$1.69) in expenditures, 8% of the mode total; and groceries with \$27.45 (s.e. \$1.58) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$54.39 (s.e. \$3.08) in expenditures, 29% of the mode total; groceries with \$32.77 (s.e. \$1.72) in expenditures, 17% of the mode total; and auto fuel with \$23.54 (s.e. \$1.00) in expenditures, 13% of the mode total. For shore trips, the top three expenditure categories were: groceries with \$18.42 (s.e. \$1.03), 21% of the mode total; auto fuel with \$17.53 (s.e. \$0.77), 20% of the mode total; and lodging with \$16.36 (s.e. \$1.48), 19% of the mode total.

Marine recreational fishing trips in California supported 6,311 full or part-time jobs, and contributed \$795 million in sales, \$290 million in income, and \$498 million in gross domestic product (GDP) to the state's economy.

Table CA_ 1: Total Economic Impacts Generated in California in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$211,542	3,264	\$366,220	\$140,152	\$224,213
Private Boat	\$93,861	895	\$140,953	\$46,545	\$88,474
Shore	\$183,361	2,152	\$287,571	\$102,841	\$185,787
Total Trip	\$488,765	6,311	\$794,744	\$289,538	\$498,474

Table CA_ 2: California Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$22.43	\$1.13	1047
	Auto rental	\$1.86	\$0.31	1038
	Transportation - public	\$1.45	\$0.29	1050
	Transportation - air	\$12.55	\$1.82	1049
	Lodging	\$25.42	\$2.01	1044
	Groceries	\$27.45	\$1.58	1046
	Restaurants	\$26.63	\$1.51	1049
	Bait	\$6.88	\$0.76	1049
	Ice	\$3.94	\$0.24	1050
	Parking	\$5.64	\$0.50	1050
	Guide fees	\$202.35	\$7.62	1049
	Crew tips	\$30.69	\$1.69	1049
	Fish processing	\$5.45	\$0.71	1051
	Tournament fees	-	-	-
	Gifts	\$5.23	\$0.75	1050
	For-Hire trip total	\$377.97	-	-
Private Boat	Auto fuel	\$23.54	\$1	1208
	Auto rental	\$0.29	\$0.09	1199
	Transportation - public	\$0.13	\$0.03	1201
	Transportation - air	\$6.63	\$1.13	1214
	Lodging	\$10.55	\$1.27	1212
	Groceries	\$32.77	\$1.72	1211
	Restaurants	\$21.17	\$1.53	1213
	Bait	\$21.59	\$1.23	1210
	Ice	\$6.16	\$0.32	1210
	Parking	\$6.94	\$0.61	1214
	Boat fuel	\$54.39	\$3.08	1197
	Boat rental	\$1.98	\$0.39	1198
	Fish processing	\$0	\$0	1202
	Tournament fees	-	-	-
	Gifts	\$1.20	\$0.15	1201
	Private Boat trip total	\$187.34	-	-
Shore	Auto fuel	\$17.53	\$0.77	1134
	Auto rental	\$0.18	\$0.06	1124
	Transportation - public	\$0	\$0	1124
	Transportation - air	\$0.61	\$0.18	1123
	Lodging	\$16.36	\$1.48	1133
	Groceries	\$18.42	\$1.03	1136
	Restaurants	\$15.76	\$0.96	1136
	Bait	\$9.01	\$0.44	1134
	Ice	\$1.45	\$0.09	1120
	Parking	\$4.47	\$0.71	1136
	Fish processing	\$0	\$0	1136
	Tournament fees	-	-	-
	Gifts	\$3.03	\$0.49	1136
	Shore trip total	\$86.82	-	-

Connecticut

In Connecticut recreational anglers spent an average of \$130.82 per angler day on for-hire trips, \$40.94 on private or rental boat trips, and \$24.89 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$94.18 (s.e. \$5.24) in expenditures, 72% of the mode total; crew tips with \$12.94 (s.e. \$1.47) in expenditures, 10% of the mode total; and groceries with \$11.68 (s.e. \$1.29) in expenditures, 9% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$15.93 (s.e. \$1.06) in expenditures, 39% of the mode total; auto fuel with \$9.43 (s.e. \$0.73) in expenditures, 23% of the mode total; and bait with \$7.53 (s.e. \$0.47) in expenditures, 18% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$9.97 (s.e. \$1.16), 40% of the mode total; bait with \$7.46 (s.e. \$1.33), 30% of the mode total; and groceries with \$4.06 (s.e. \$0.66), 16% of the mode total.

Marine recreational fishing trips in Connecticut supported 913 full or part-time jobs, and contributed \$106 million in sales, \$45 million in income, and \$82 million in gross domestic product (GDP) to the state's economy.

Table CT_ 1: Total Economic Impacts Generated in Connecticut in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$4,111	55	\$5,980	\$2,351	\$3,870
Private Boat	\$53,082	354	\$44,460	\$18,667	\$33,756
Shore	\$54,264	504	\$55,727	\$24,083	\$44,181
Total Trip	\$111,457	913	\$106,167	\$45,101	\$81,807

Table CT_ 2: Connecticut Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$9.45	\$1.11	645
	Auto rental	\$0	\$0	645
	Transportation - air & public	\$0	\$0	638
	Lodging	\$0.02	\$0.02	632
	Groceries	\$11.68	\$1.29	645
	Restaurants	\$1.61	\$0.30	636
	Bait	\$0.20	\$0.07	627
	Ice	\$0.72	\$0.13	641
	Parking	\$0.02	\$0.02	637
	Guide fees	\$94.18	\$5.24	636
	Crew tips	\$12.94	\$1.47	633
	Fish processing	\$0	\$0	636
	Tournament fees	\$0	\$0	637
	Gifts	\$0	\$0	645
	For-Hire trip total	\$130.82	-	-
Private Boat	Auto fuel	\$9.43	\$0.73	1878
	Auto rental	\$0	\$0	1873
	Transportation - air & public	\$0	\$0	1874
	Lodging	\$0	\$0	1871
	Groceries	\$5.12	\$0.48	1878
	Restaurants	\$2.01	\$0.30	1878
	Bait	\$7.53	\$0.47	1877
	Ice	\$0.89	\$0.12	1877
	Parking	\$0.02	\$0.01	1867
	Boat fuel	\$15.93	\$1.06	1877
	Boat rental	\$0	\$0	1870
	Fish processing	\$0	\$0	1877
	Tournament fees	\$0.01	\$0.01	1866
	Gifts	\$0	\$0	1878
	Private Boat trip total	\$40.94	-	-
Shore	Auto fuel	\$9.97	\$1.16	363
	Auto rental	\$0	\$0	364
	Transportation - air & public	\$0	\$0	363
	Lodging	\$0	\$0	360
	Groceries	\$4.06	\$0.66	359
	Restaurants	\$2.90	\$1.46	358
	Bait	\$7.46	\$1.33	365
	Ice	\$0.23	\$0.13	362
	Parking	\$0.27	\$0.12	360
	Fish processing	\$0	\$0	365
	Tournament fees	\$0	\$0	365
	Gifts	\$0	\$0	363
	Shore trip total	\$24.89	-	-

Delaware

In Delaware recreational anglers spent an average of \$153.47 per angler day on for-hire trips, \$53.22 on private or rental boat trips, and \$42.94 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$100.95 (s.e. \$3.44) in expenditures, 66% of the mode total; crew tips with \$12.57 (s.e. \$2.04) in expenditures, 8% of the mode total; and auto fuel with \$11.97 (s.e. \$1.14) in expenditures, 8% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$14.90 (s.e. \$1.33) in expenditures, 28% of the mode total; auto fuel with \$13.08 (s.e. \$1.06) in expenditures, 25% of the mode total; and bait with \$10.28 (s.e. \$0.71) in expenditures, 19% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$10.94 (s.e. \$1.07), 25% of the mode total; groceries with \$10.20 (s.e. \$1.28), 24% of the mode total; and bait with \$9.60 (s.e. \$0.91), 22% of the mode total.

Marine recreational fishing trips in Delaware supported 849 full or part-time jobs, and contributed \$97 million in sales, \$32 million in income, and \$63 million in gross domestic product (GDP) to the state's economy.

Table DE_ 1: Total Economic Impacts Generated in Delaware in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$1,895	34	\$2,899	\$1,086	\$1,644
Private Boat	\$34,372	278	\$36,390	\$11,181	\$22,543
Shore	\$51,233	537	\$58,059	\$20,031	\$39,223
Total Trip	\$87,501	849	\$97,348	\$32,298	\$63,410

Table DE_ 2: Delaware Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$11.97	\$1.14	397
	Auto rental	\$0	\$0	387
	Transportation - air & public	\$0	\$0	397
	Lodging	\$8.03	\$3.22	390
	Groceries	\$11.47	\$1.10	397
	Restaurants	\$5.31	\$1.80	383
	Bait	\$1.38	\$0.55	396
	Ice	\$1.30	\$0.35	395
	Parking	\$0.15	\$0.06	391
	Guide fees	\$100.95	\$3.44	397
	Crew tips	\$12.57	\$2.04	396
	Fish processing	\$0	\$0	390
	Tournament fees	\$0.03	\$0.03	382
	Gifts	\$0.31	\$0.21	392
	For-Hire trip total	\$153.47	-	-
Private Boat	Auto fuel	\$13.08	\$1.06	1039
	Auto rental	\$0	\$0	1033
	Transportation - air & public	\$0	\$0	1037
	Lodging	\$1.09	\$0.45	1027
	Groceries	\$7.73	\$0.63	1039
	Restaurants	\$1.12	\$0.21	1026
	Bait	\$10.28	\$0.71	1039
	Ice	\$2.17	\$0.25	1039
	Parking	\$0.15	\$0.04	1017
	Boat fuel	\$14.90	\$1.33	1039
	Boat rental	\$0	\$0	1038
	Fish processing	\$0	\$0	1039
	Tournament fees	\$2.70	\$1.42	1033
	Gifts	\$0	\$0	1037
	Private Boat trip total	\$53.22	-	-
Shore	Auto fuel	\$10.94	\$1.07	703
	Auto rental	\$0	\$0	701
	Transportation - air & public	\$0	\$0	702
	Lodging	\$4.16	\$1.18	693
	Groceries	\$10.20	\$1.28	703
	Restaurants	\$5.68	\$1.27	697
	Bait	\$9.60	\$0.91	703
	Ice	\$1.52	\$0.30	703
	Parking	\$0.70	\$0.14	693
	Fish processing	\$0	\$0	703
	Tournament fees	\$0	\$0	699
	Gifts	\$0.14	\$0.08	697
	Shore trip total	\$42.94	-	-

East Florida

In East Florida recreational anglers spent an average of \$244.44 per angler day on for-hire trips, \$43.37 on private or rental boat trips, and \$26.85 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$168.16 (s.e. \$14.37) in expenditures, 69% of the mode total; crew tips with \$24.31 (s.e. \$3.33) in expenditures, 10% of the mode total; and lodging with \$16.45 (s.e. \$2.36) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$16.21 (s.e. \$1.06) in expenditures, 37% of the mode total; auto fuel with \$7.60 (s.e. \$0.37) in expenditures, 18% of the mode total; and groceries with \$7.26 (s.e. \$0.35) in expenditures, 17% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$7.23 (s.e. \$0.40), 27% of the mode total; groceries with \$5.25 (s.e. \$0.41), 20% of the mode total; and bait with \$5.01 (s.e. \$0.35), 19% of the mode total.

Marine recreational fishing trips in East Florida supported 14,456 full or part-time jobs, and contributed \$1 billion in sales, \$486 million in income, and \$959 million in gross domestic product (GDP) to the state's economy.

Table EFL_ 1: Total Economic Impacts Generated in East Florida in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$53,734	928	\$94,307	\$33,229	\$56,195
Private Boat	\$469,059	4,670	\$463,590	\$153,507	\$310,721
Shore	\$693,862	8,858	\$873,806	\$299,636	\$591,922
Total Trip	\$1,216,655	14,456	\$1,431,703	\$486,372	\$958,838

Table EFL_ 2: East Florida Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$7.33	\$0.79	589
	Auto rental	\$0.45	\$0.21	582
	Transportation - air & public	\$3.71	\$0.80	581
	Lodging	\$16.45	\$2.36	585
	Groceries	\$11.15	\$1.11	589
	Restaurants	\$11.01	\$1.48	585
	Bait	\$0.37	\$0.04	592
	Ice	\$0.09	\$0.05	588
	Parking	\$0.01	\$0.01	581
	Guide fees	\$168.16	\$14.37	589
	Crew tips	\$24.31	\$3.33	592
	Fish processing	\$0	\$0	591
	Tournament fees	\$0	\$0	592
	Gifts	\$1.40	\$0.18	583
	For-Hire trip total	\$244.44	-	-
Private Boat	Auto fuel	\$7.60	\$0.37	3920
	Auto rental	\$0	\$0	3904
	Transportation - air & public	\$0.01	\$0	3897
	Lodging	\$0.34	\$0.13	3902
	Groceries	\$7.26	\$0.35	3922
	Restaurants	\$2.42	\$0.37	3922
	Bait	\$7.16	\$0.47	3921
	Ice	\$1.63	\$0.12	3921
	Parking	\$0.74	\$0.10	3922
	Boat fuel	\$16.21	\$1.06	3920
	Boat rental	\$0	\$0	3896
	Fish processing	\$0	\$0	3920
	Tournament fees	\$0	\$0	3903
	Gifts	\$0	\$0	3910
	Private Boat trip total	\$43.37	-	-
Shore	Auto fuel	\$7.23	\$0.40	1213
	Auto rental	\$1.09	\$0.14	1213
	Transportation - air & public	\$0	\$0	1199
	Lodging	\$1.83	\$0.38	1204
	Groceries	\$5.25	\$0.41	1213
	Restaurants	\$2.92	\$0.33	1213
	Bait	\$5.01	\$0.35	1213
	Ice	\$0.70	\$0.06	1213
	Parking	\$2.82	\$0.33	1213
	Fish processing	\$0	\$0	1213
	Tournament fees	\$0	\$0	1210
	Gifts	\$0	\$0	1200
	Shore trip total	\$26.85	-	-

Georgia

In Georgia recreational anglers spent an average of \$266.56 per angler day on for-hire trips, \$40.58 on private or rental boat trips, and \$51.19 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$159.74 (s.e. \$27.40) in expenditures, 60% of the mode total; lodging with \$54.51 (s.e. \$11.97) in expenditures, 20% of the mode total; and restaurants with \$15.42 (s.e. \$3.38) in expenditures, 6% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$13.21 (s.e. \$2.34) in expenditures, 33% of the mode total; auto fuel with \$9.30 (s.e. \$1.25) in expenditures, 23% of the mode total; and groceries with \$6.43 (s.e. \$0.82) in expenditures, 16% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$14.83 (s.e. \$3.80), 29% of the mode total; auto fuel with \$11.73 (s.e. \$1.50), 23% of the mode total; and restaurants with \$9.70 (s.e. \$1.76), 19% of the mode total.

Marine recreational fishing trips in Georgia supported 2,788 full or part-time jobs, and contributed \$231 million in sales, \$76 million in income, and \$144 million in gross domestic product (GDP) to the state's economy.

Table GA_ 1: Total Economic Impacts Generated in Georgia in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$4,947	87	\$8,466	\$2,856	\$5,001
Private Boat	\$58,580	769	\$56,706	\$18,146	\$37,371
Shore	\$120,883	1,932	\$165,350	\$54,615	\$102,064
Total Trip	\$184,410	2,788	\$230,522	\$75,617	\$144,436

Table GA_ 2: Georgia Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$11.53	\$1.68	194
	Auto rental	\$0.07	\$0.07	191
	Transportation - air & public	\$1.45	\$0.34	190
	Lodging	\$54.51	\$11.97	192
	Groceries	\$14.20	\$1.57	194
	Restaurants	\$15.42	\$3.38	193
	Bait	\$0.15	\$0.12	189
	Ice	\$0.41	\$0.17	189
	Parking	\$0.02	\$0.01	190
	Guide fees	\$159.74	\$27.40	191
	Crew tips	\$5.08	\$1.02	189
	Fish processing	\$0	\$0	191
	Tournament fees	\$0	\$0	191
	Gifts	\$3.98	\$0.63	194
	For-Hire trip total	\$266.56	-	-
Private Boat	Auto fuel	\$9.30	\$1.25	752
	Auto rental	\$0	\$0	747
	Transportation - air & public	\$0.02	\$0.02	748
	Lodging	\$1.70	\$0.67	744
	Groceries	\$6.43	\$0.82	752
	Restaurants	\$2.32	\$0.50	743
	Bait	\$5.58	\$0.80	751
	Ice	\$1.35	\$0.21	751
	Parking	\$0.24	\$0.09	740
	Boat fuel	\$13.21	\$2.34	751
	Boat rental	\$0	\$0	747
	Fish processing	\$0	\$0	751
	Tournament fees	\$0.43	\$0.27	748
	Gifts	\$0	\$0	743
	Private Boat trip total	\$40.58	-	-
Shore	Auto fuel	\$11.73	\$1.50	525
	Auto rental	\$0	\$0	521
	Transportation - air & public	\$0	\$0	522
	Lodging	\$14.83	\$3.80	517
	Groceries	\$7.91	\$1.22	525
	Restaurants	\$9.70	\$1.76	522
	Bait	\$4.36	\$0.36	519
	Ice	\$0.63	\$0.13	513
	Parking	\$1.14	\$0.22	518
	Fish processing	\$0	\$0	519
	Tournament fees	\$0	\$0	515
	Gifts	\$0.89	\$0.21	516
	Shore trip total	\$51.19	-	-

Hawai'i

In Hawai'i recreational anglers spent an average of \$186.90 per angler day on private or rental boat trips and \$70.36 on shore trips. For private boat trips, the three highest expenditure categories were: boat fuel with \$86.51 (s.e. \$6.22) in expenditures, 46% of the mode total; groceries with \$25.22 (s.e. \$1.94) in expenditures, 13% of the mode total; and auto fuel with \$21.93 (s.e. \$3.18) in expenditures, 12% of the mode total. For shore trips, the top three expenditure categories were: groceries with \$24.35 (s.e. \$3.43), 35% of the mode total; auto fuel with \$15.71 (s.e. \$1.80), 22% of the mode total; and restaurants with \$8.00 (s.e. \$2.60), 11% of the mode total.

Marine recreational fishing trips in Hawai'i supported 1,093 full or part-time jobs, and contributed \$146 million in sales, \$45 million in income, and \$81 million in gross domestic product (GDP) to the state's economy.

Table HI_1: Total Economic Impacts Generated in Hawai'i in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	NA	NA	NA	NA	NA
Private Boat	\$48,756	385	\$58,767	\$16,494	\$30,404
Shore	\$71,698	708	\$87,151	\$28,424	\$50,346
Total Trip	\$120,454	1,093	\$145,918	\$44,918	\$80,750

Table HI_ 2: Hawaii Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
Private Boat	Auto fuel	\$21.93	\$3.18	671
	Auto rental	\$0.43	\$0.16	674
	Transportation - public	-	-	-
	Transportation - air	\$1.13	\$0.49	674
	Lodging	\$1.12	\$0.62	669
	Groceries	\$25.22	\$1.94	675
	Restaurants	\$9.13	\$1.39	676
	Bait	\$12.10	\$1.44	673
	Ice	\$17.11	\$1.15	672
	Parking	-	-	-
	Boat fuel	\$86.51	\$6.22	677
	Boat rental	-	-	-
	Fish processing	-	-	-
	Tournament fees	\$11.69	\$2.55	674
	Gifts	\$0.53	\$0.20	674
Private Boat trip total	\$186.90	-	-	
Shore	Auto fuel	\$15.71	\$1.80	386
	Auto rental	\$0.36	\$0.19	385
	Transportation - public	-	-	-
	Transportation - air	\$4.37	\$3.26	383
	Lodging	\$2.79	\$1.66	381
	Groceries	\$24.35	\$3.43	385
	Restaurants	\$8	\$2.60	384
	Bait	\$6.77	\$0.87	386
	Ice	\$5.67	\$0.83	386
	Parking	-	-	-
	Fish processing	-	-	-
	Tournament fees	\$0.78	\$0.26	385
	Gifts	\$1.56	\$0.92	385
	Shore trip total	\$70.36	-	-

Louisiana

In Louisiana recreational anglers spent an average of \$598.39 per angler day on for-hire trips, \$196.20 on private or rental boat trips, and \$129.71 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$366.42 (s.e. \$47.55) in expenditures, 61% of the mode total; lodging with \$61.13 (s.e. \$12.04) in expenditures, 10% of the mode total; and groceries with \$42.18 (s.e. \$5.45) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$51.85 (s.e. \$4.10) in expenditures, 26% of the mode total; groceries with \$38.48 (s.e. \$2.43) in expenditures, 20% of the mode total; and auto fuel with \$30.94 (s.e. \$1.89) in expenditures, 16% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$36.97 (s.e. \$5.76), 29% of the mode total; groceries with \$32.96 (s.e. \$5.52), 25% of the mode total; and lodging with \$18.85 (s.e. \$6.91), 15% of the mode total.

Marine recreational fishing trips in Louisiana supported 5,802 full or part-time jobs, and contributed \$622 million in sales, \$197 million in income, and \$357 million in gross domestic product (GDP) to the state’s economy.

Table LA_1: Total Economic Impacts Generated in Louisiana in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$94,112	1,851	\$150,975	\$47,377	\$80,374
Private Boat	\$302,428	3,282	\$397,091	\$125,323	\$231,958
Shore	\$56,545	669	\$74,292	\$24,544	\$44,580
Total Trip	\$453,085	5,802	\$622,358	\$197,244	\$356,912

Table LA_ 2: Louisiana Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$24.05	\$2.83	112
	Auto rental	\$1.43	\$0.93	109
	Transportation - public	\$0	\$0	111
	Transportation - air	\$8.31	\$4.82	109
	Lodging	\$61.13	\$12.04	110
	Groceries	\$42.18	\$5.45	110
	Restaurants	\$41.67	\$5.93	112
	Bait	\$6.09	\$1.75	108
	Ice	\$4.37	\$0.84	112
	Parking	\$0.40	\$0.17	110
	Guide fees	\$366.42	\$47.55	111
	Crew tips	\$39.53	\$5.63	112
	Fish processing	\$0.73	\$0.71	110
	Tournament fees	-	-	-
	Gifts	\$2.08	\$0.82	106
For-Hire trip total	\$598.39	-	-	
Private Boat	Auto fuel	\$30.94	\$1.89	735
	Auto rental	\$0.34	\$0.16	729
	Transportation - public	\$0	\$0	729
	Transportation - air	\$0	\$0	724
	Lodging	\$15.29	\$1.99	735
	Groceries	\$38.48	\$2.43	737
	Restaurants	\$19.08	\$3.10	736
	Bait	\$23.72	\$1.76	743
	Ice	\$9.50	\$0.91	743
	Parking	\$6.49	\$0.94	735
	Boat fuel	\$51.85	\$4.10	741
	Boat rental	\$0	\$0	731
	Fish processing	\$0.01	\$0.01	736
	Tournament fees	-	-	-
	Gifts	\$0.50	\$0.15	726
Private Boat trip total	\$196.20	-	-	
Shore	Auto fuel	\$36.97	\$5.76	116
	Auto rental	\$0	\$0	114
	Transportation - public	\$0	\$0	113
	Transportation - air	\$0	\$0	116
	Lodging	\$18.85	\$6.91	115
	Groceries	\$32.96	\$5.52	116
	Restaurants	\$13.63	\$2.68	114
	Bait	\$18.09	\$3.13	118
	Ice	\$5.03	\$0.89	116
	Parking	\$3.49	\$1	114
	Fish processing	\$0	\$0	117
	Tournament fees	-	-	-
	Gifts	\$0.69	\$0.33	114
	Shore trip total	\$129.71	-	-

Maine

In Maine recreational anglers spent an average of \$216.50 per angler day on for-hire trips, \$26.21 on private or rental boat trips, and \$42.24 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$160.95 (s.e. \$23.15) in expenditures, 74% of the mode total; lodging with \$18.45 (s.e. \$3.83) in expenditures, 9% of the mode total; and restaurants with \$13.73 (s.e. \$3.00) in expenditures, 6% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$9.38 (s.e. \$1.57) in expenditures, 36% of the mode total; groceries with \$5.11 (s.e. \$0.64) in expenditures, 19% of the mode total; and auto fuel with \$4.64 (s.e. \$0.87) in expenditures, 18% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$16.96 (s.e. \$5.31), 40% of the mode total; auto fuel with \$7.60 (s.e. \$1.29), 18% of the mode total; and groceries with \$6.30 (s.e. \$1.83), 15% of the mode total.

Marine recreational fishing trips in Maine supported 714 full or part-time jobs, and contributed \$75 million in sales, \$27 million in income, and \$45 million in gross domestic product (GDP) to the state's economy.

Table ME_ 1: Total Economic Impacts Generated in Maine in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$2,863	52	\$4,725	\$1,644	\$2,747
Private Boat	\$15,322	138	\$15,957	\$5,353	\$9,009
Shore	\$40,223	524	\$54,603	\$20,012	\$32,799
Total Trip	\$58,408	714	\$75,285	\$27,009	\$44,555

Table ME_ 2: Maine Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$7.97	\$1.30	202
	Auto rental	\$0	\$0	204
	Transportation - air & public	\$0	\$0	200
	Lodging	\$18.45	\$3.83	196
	Groceries	\$9.40	\$1.66	200
	Restaurants	\$13.73	\$3	198
	Bait	\$0	\$0	204
	Ice	\$0	\$0	199
	Parking	\$1.15	\$0.23	204
	Guide fees	\$160.95	\$23.15	206
	Crew tips	\$4	\$1.75	199
	Fish processing	\$0	\$0	206
	Tournament fees	\$0	\$0	205
	Gifts	\$0.85	\$0.33	200
	For-Hire trip total	\$216.50	-	-
Private Boat	Auto fuel	\$4.64	\$0.87	420
	Auto rental	\$0	\$0	418
	Transportation - air & public	\$0	\$0	418
	Lodging	\$3.27	\$2.08	419
	Groceries	\$5.11	\$0.64	420
	Restaurants	\$1.87	\$0.86	413
	Bait	\$1.40	\$0.27	422
	Ice	\$0.23	\$0.08	413
	Parking	\$0.16	\$0.08	403
	Boat fuel	\$9.38	\$1.57	422
	Boat rental	\$0	\$0	421
	Fish processing	\$0	\$0	422
	Tournament fees	\$0	\$0	422
	Gifts	\$0.15	\$0.15	419
	Private Boat trip total	\$26.21	-	-
Shore	Auto fuel	\$7.60	\$1.29	311
	Auto rental	\$0	\$0	309
	Transportation - air & public	\$0	\$0	307
	Lodging	\$16.96	\$5.31	309
	Groceries	\$6.30	\$1.83	309
	Restaurants	\$4.39	\$1.44	301
	Bait	\$1.16	\$0.32	308
	Ice	\$0	\$0	305
	Parking	\$5.81	\$0.96	311
	Fish processing	\$0	\$0	311
	Tournament fees	\$0	\$0	310
	Gifts	\$0.02	\$0.02	303
	Shore trip total	\$42.24	-	-

Maryland

In Maryland recreational anglers spent an average of \$176.54 per angler day on for-hire trips, \$45.28 on private or rental boat trips, and \$27.80 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$114.79 (s.e. \$8.88) in expenditures, 65% of the mode total; lodging with \$20.74 (s.e. \$2.07) in expenditures, 12% of the mode total; and groceries with \$10.42 (s.e. \$0.87) in expenditures, 6% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$12.03 (s.e. \$1.14) in expenditures, 27% of the mode total; auto fuel with \$9.78 (s.e. \$0.79) in expenditures, 22% of the mode total; and groceries with \$7.72 (s.e. \$0.81) in expenditures, 17% of the mode total. For shore trips, the top three expenditure categories were: groceries with \$7.01 (s.e. \$1.03), 25% of the mode total; bait with \$6.47 (s.e. \$0.56), 23% of the mode total; and auto fuel with \$6.43 (s.e. \$0.72), 23% of the mode total.

Marine recreational fishing trips in Maryland supported 3,491 full or part-time jobs, and contributed \$323 million in sales, \$120 million in income, and \$207 million in gross domestic product (GDP) to the state's economy.

Table MD_ 1: Total Economic Impacts Generated in Maryland in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$35,032	565	\$55,948	\$21,657	\$34,408
Private Boat	\$145,337	1,421	\$140,076	\$51,658	\$88,530
Shore	\$111,466	1,505	\$127,122	\$46,641	\$84,303
Total Trip	\$291,834	3,491	\$323,146	\$119,956	\$207,241

Table MD_ 2: Maryland Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$8.35	\$0.76	1205
	Auto rental	\$0	\$0	1202
	Transportation - air & public	\$0	\$0	1195
	Lodging	\$20.74	\$2.07	1205
	Groceries	\$10.42	\$0.87	1205
	Restaurants	\$8.47	\$1.16	1202
	Bait	\$1.50	\$0.38	1185
	Ice	\$0.82	\$0.13	1205
	Parking	\$0.68	\$0.08	1205
	Guide fees	\$114.79	\$8.88	1204
	Crew tips	\$10.27	\$1.62	1202
	Fish processing	\$0.29	\$0.03	1205
	Tournament fees	\$0	\$0	1203
	Gifts	\$0.21	\$0.06	1183
	For-Hire trip total	\$176.54	-	-
Private Boat	Auto fuel	\$9.78	\$0.79	2568
	Auto rental	\$0	\$0	2567
	Transportation - air & public	\$0	\$0	2565
	Lodging	\$1.30	\$0.40	2543
	Groceries	\$7.72	\$0.81	2571
	Restaurants	\$3.69	\$0.73	2570
	Bait	\$5.03	\$0.71	2571
	Ice	\$1.60	\$0.18	2571
	Parking	\$1.21	\$0.16	2571
	Boat fuel	\$12.03	\$1.14	2559
	Boat rental	\$0	\$0	2550
	Fish processing	\$0	\$0	2570
	Tournament fees	\$2.92	\$1.42	2560
	Gifts	\$0	\$0	2549
	Private Boat trip total	\$45.28	-	-
Shore	Auto fuel	\$6.43	\$0.72	765
	Auto rental	\$0	\$0	763
	Transportation - air & public	\$0	\$0	761
	Lodging	\$3.08	\$0.88	755
	Groceries	\$7.01	\$1.03	766
	Restaurants	\$2.71	\$0.61	756
	Bait	\$6.47	\$0.56	767
	Ice	\$0.46	\$0.09	759
	Parking	\$1.43	\$0.24	766
	Fish processing	\$0	\$0	767
	Tournament fees	\$0	\$0	767
	Gifts	\$0.21	\$0.07	759
	Shore trip total	\$27.80	-	-

Massachusetts

In Massachusetts recreational anglers spent an average of \$149.77 per angler day on for-hire trips, \$55.91 on private or rental boat trips, and \$26.32 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$109.36 (s.e. \$21.03) in expenditures, 73% of the mode total; lodging with \$13.26 (s.e. \$3.54) in expenditures, 9% of the mode total; and groceries with \$10.09 (s.e. \$2.35) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$28.83 (s.e. \$3.88) in expenditures, 52% of the mode total; auto fuel with \$10.22 (s.e. \$0.94) in expenditures, 18% of the mode total; and groceries with \$7.49 (s.e. \$0.99) in expenditures, 13% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$7.74 (s.e. \$3.69), 29% of the mode total; auto fuel with \$7.25 (s.e. \$1.01), 28% of the mode total; and bait with \$4.59 (s.e. \$1.10), 17% of the mode total.

Marine recreational fishing trips in Massachusetts supported 2,784 full or part-time jobs, and contributed \$326 million in sales, \$156 million in income, and \$225 million in gross domestic product (GDP) to the state's economy.

Table MA_ 1: Total Economic Impacts Generated in Massachusetts in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$30,563	463	\$49,737	\$19,342	\$31,838
Private Boat	\$181,933	1,118	\$139,187	\$68,344	\$95,335
Shore	\$100,756	1,203	\$136,898	\$68,646	\$97,822
Total Trip	\$313,252	2,784	\$325,822	\$156,332	\$224,995

Table MA_ 2: Massachusetts Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$6.40	\$1.12	607
	Auto rental	\$0.16	\$0.14	602
	Transportation - air & public	\$0.80	\$0.32	602
	Lodging	\$13.26	\$3.54	606
	Groceries	\$10.09	\$2.35	603
	Restaurants	\$6.21	\$2.38	605
	Bait	\$0.02	\$0.01	589
	Ice	\$0.20	\$0.07	593
	Parking	\$0.30	\$0.13	598
	Guide fees	\$109.36	\$21.03	597
	Crew tips	\$2.81	\$0.91	588
	Fish processing	\$0	\$0	596
	Tournament fees	\$0	\$0	596
	Gifts	\$0.16	\$0.07	605
	For-Hire trip total	\$149.77	-	-
Private Boat	Auto fuel	\$10.22	\$0.94	1111
	Auto rental	\$0	\$0	1099
	Transportation - air & public	\$0	\$0	1107
	Lodging	\$0.20	\$0.10	1099
	Groceries	\$7.49	\$0.99	1111
	Restaurants	\$2.29	\$0.42	1097
	Bait	\$3.83	\$0.50	1108
	Ice	\$1.16	\$0.15	1108
	Parking	\$1.89	\$0.26	1111
	Boat fuel	\$28.83	\$3.88	1108
	Boat rental	\$0	\$0	1103
	Fish processing	\$0	\$0	1108
	Tournament fees	\$0	\$0	1100
	Gifts	\$0	\$0	1108
	Private Boat trip total	\$55.91	-	-
Shore	Auto fuel	\$7.25	\$1.01	270
	Auto rental	\$0	\$0	268
	Transportation - air & public	\$0	\$0	262
	Lodging	\$7.74	\$3.69	265
	Groceries	\$2.11	\$0.43	261
	Restaurants	\$3.07	\$1.44	262
	Bait	\$4.59	\$1.10	263
	Ice	\$0.09	\$0.03	265
	Parking	\$1.21	\$0.46	267
	Fish processing	\$0	\$0	266
	Tournament fees	\$0	\$0	266
	Gifts	\$0.26	\$0.21	269
	Shore trip total	\$26.32	-	-

Mississippi

In Mississippi recreational anglers spent an average of \$553.48 per angler day on for-hire trips, \$32.93 on private or rental boat trips, and \$16.63 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$368.98 (s.e. \$35.53) in expenditures, 67% of the mode total; lodging with \$75.83 (s.e. \$10.60) in expenditures, 14% of the mode total; and restaurants with \$41.17 (s.e. \$5.56) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$13.08 (s.e. \$1.20) in expenditures, 40% of the mode total; auto fuel with \$6.52 (s.e. \$0.79) in expenditures, 20% of the mode total; and bait with \$6.23 (s.e. \$0.60) in expenditures, 19% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$5.80 (s.e. \$0.79), 35% of the mode total; bait with \$4.40 (s.e. \$0.77), 26% of the mode total; and groceries with \$3.02 (s.e. \$0.69), 18% of the mode total.

Marine recreational fishing trips in Mississippi supported 1,584 full or part-time jobs, and contributed \$132 million in sales, \$44 million in income, and \$81 million in gross domestic product (GDP) to the state's economy.

Table MS_ 1: Total Economic Impacts Generated in Mississippi in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$10,854	204	\$16,559	\$5,045	\$8,769
Private Boat	\$51,816	586	\$55,163	\$17,481	\$33,230
Shore	\$52,031	794	\$60,560	\$21,318	\$39,200
Total Trip	\$114,700	1,584	\$132,282	\$43,844	\$81,199

Table MS_ 2: Mississippi Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$23.21	\$1.39	129
	Auto rental	\$0.28	\$0.03	130
	Transportation - air & public	\$0	\$0	129
	Lodging	\$75.83	\$10.60	130
	Groceries	\$11.72	\$2.84	129
	Restaurants	\$41.17	\$5.56	129
	Bait	\$0.73	\$0.69	129
	Ice	\$0.40	\$0.07	126
	Parking	\$0	\$0	130
	Guide fees	\$368.98	\$35.53	128
	Crew tips	\$30.82	\$4.63	130
	Fish processing	\$0	\$0	129
	Tournament fees	\$0	\$0	130
	Gifts	\$0.34	\$0.22	129
For-Hire trip total	\$553.48	-	-	
Private Boat	Auto fuel	\$6.52	\$0.79	920
	Auto rental	\$0	\$0	919
	Transportation - air & public	\$0	\$0	919
	Lodging	\$0	\$0	912
	Groceries	\$4.25	\$0.68	920
	Restaurants	\$0.75	\$0.17	906
	Bait	\$6.23	\$0.60	923
	Ice	\$2.10	\$0.26	923
	Parking	\$0	\$0	914
	Boat fuel	\$13.08	\$1.20	923
	Boat rental	\$0	\$0	918
	Fish processing	\$0	\$0	923
	Tournament fees	\$0	\$0	922
	Gifts	\$0	\$0	914
	Private Boat trip total	\$32.93	-	-
Shore	Auto fuel	\$5.80	\$0.79	220
	Auto rental	\$0	\$0	220
	Transportation - air & public	\$0	\$0	220
	Lodging	\$0.92	\$0.57	217
	Groceries	\$3.02	\$0.69	213
	Restaurants	\$1.56	\$0.38	215
	Bait	\$4.40	\$0.77	221
	Ice	\$0.93	\$0.16	221
	Parking	\$0	\$0	219
	Fish processing	\$0	\$0	221
	Tournament fees	\$0	\$0	221
	Gifts	\$0	\$0	217
	Shore trip total	\$16.63	-	-

New Hampshire

In New Hampshire recreational anglers spent an average of \$132.89 per angler day on for-hire trips, \$30.15 on private or rental boat trips, and \$33.75 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$86.29 (s.e. \$9.33) in expenditures, 65% of the mode total; restaurants with \$11.03 (s.e. \$1.96) in expenditures, 8% of the mode total; and crew tips with \$10.80 (s.e. \$1.48) in expenditures, 8% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$13.24 (s.e. \$1.70) in expenditures, 44% of the mode total; auto fuel with \$6.50 (s.e. \$0.77) in expenditures, 22% of the mode total; and groceries with \$4.22 (s.e. \$0.61) in expenditures, 14% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$14.85 (s.e. \$11.69), 44% of the mode total; auto fuel with \$6.59 (s.e. \$0.73), 20% of the mode total; and groceries with \$4.85 (s.e. \$1.30), 14% of the mode total.

Marine recreational fishing trips in New Hampshire supported 378 full or part-time jobs, and contributed \$37 million in sales, \$15 million in income, and \$25 million in gross domestic product (GDP) to the state's economy.

Table NH_ 1: Total Economic Impacts Generated in New Hampshire in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$6,168	100	\$9,393	\$3,593	\$5,680
Private Boat	\$12,176	93	\$9,555	\$4,371	\$6,376
Shore	\$14,107	185	\$18,166	\$7,249	\$12,569
Total Trip	\$32,451	378	\$37,114	\$15,213	\$24,625

Table NH_ 2: New Hampshire Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$9.75	\$1.35	736
	Auto rental	\$0	\$0	736
	Transportation - air & public	\$0	\$0	727
	Lodging	\$4.65	\$1.53	728
	Groceries	\$8.96	\$1.61	736
	Restaurants	\$11.03	\$1.96	730
	Bait	\$0	\$0	730
	Ice	\$0.36	\$0.08	732
	Parking	\$0.92	\$0.14	736
	Guide fees	\$86.29	\$9.33	739
	Crew tips	\$10.80	\$1.48	739
	Fish processing	\$0	\$0	736
	Tournament fees	\$0	\$0	739
	Gifts	\$0.13	\$0.06	729
	For-Hire trip total	\$132.89	-	-
Private Boat	Auto fuel	\$6.50	\$0.77	579
	Auto rental	\$0	\$0	577
	Transportation - air & public	\$0	\$0	578
	Lodging	\$0	\$0	572
	Groceries	\$4.22	\$0.61	579
	Restaurants	\$1.32	\$0.33	569
	Bait	\$1.53	\$0.26	577
	Ice	\$0.36	\$0.11	557
	Parking	\$2.91	\$0.53	570
	Boat fuel	\$13.24	\$1.70	577
	Boat rental	\$0.07	\$0.05	574
	Fish processing	\$0	\$0	577
	Tournament fees	\$0	\$0	577
	Gifts	\$0	\$0	577
	Private Boat trip total	\$30.15	-	-
Shore	Auto fuel	\$6.59	\$0.73	226
	Auto rental	\$0	\$0	226
	Transportation - air & public	\$0	\$0	226
	Lodging	\$14.85	\$11.69	225
	Groceries	\$4.85	\$1.30	225
	Restaurants	\$2.70	\$1.08	221
	Bait	\$4.43	\$0.74	226
	Ice	\$0	\$0	216
	Parking	\$0.33	\$0.15	218
	Fish processing	\$0	\$0	226
	Tournament fees	\$0	\$0	226
	Gifts	\$0	\$0	224
	Shore trip total	\$33.75	-	-

New Jersey

In New Jersey recreational anglers spent an average of \$114.51 per angler day on for-hire trips, \$64.12 on private or rental boat trips, and \$21.66 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$88.79 (s.e. \$9.22) in expenditures, 78% of the mode total; groceries with \$9.22 (s.e. \$1.37) in expenditures, 8% of the mode total; and auto fuel with \$8.09 (s.e. \$0.84) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$33.09 (s.e. \$5.52) in expenditures, 52% of the mode total; bait with \$10.55 (s.e. \$0.95) in expenditures, 16% of the mode total; and auto fuel with \$7.95 (s.e. \$0.94) in expenditures, 12% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$7.38 (s.e. \$0.68), 34% of the mode total; groceries with \$6.06 (s.e. \$0.87), 28% of the mode total; and bait with \$5.44 (s.e. \$0.46), 25% of the mode total.

Marine recreational fishing trips in New Jersey supported 3,707 full or part-time jobs, and contributed \$562 million in sales, \$228 million in income, and \$363 million in gross domestic product (GDP) to the state’s economy.

Table NJ_ 1: Total Economic Impacts Generated in New Jersey in 2017

Fishing Mode	Expense (\$1,000’s)	# Jobs	Sales (\$1,000’s)	Income (\$1,000’s)	Value Added (\$1,000’s)
For-Hire	\$22,442	346	\$36,089	\$13,161	\$22,678
Private Boat	\$298,441	2,068	\$345,574	\$136,735	\$219,411
Shore	\$143,967	1,293	\$180,635	\$78,504	\$121,107
Total Trip	\$464,850	3,707	\$562,298	\$228,400	\$363,196

Table NJ_ 2: New Jersey Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$8.09	\$0.84	752
	Auto rental	\$0	\$0	750
	Transportation - air & public	\$0	\$0	749
	Lodging	\$1.45	\$0.77	745
	Groceries	\$9.22	\$1.37	752
	Restaurants	\$1.82	\$0.48	741
	Bait	\$1.68	\$0.26	752
	Ice	\$0.19	\$0.04	738
	Parking	\$0.55	\$0.13	735
	Guide fees	\$88.79	\$9.22	752
	Crew tips	\$2.70	\$0.47	746
	Fish processing	\$0	\$0	748
	Tournament fees	\$0	\$0	738
	Gifts	\$0.02	\$0.01	746
	For-Hire trip total	\$114.51	-	-
Private Boat	Auto fuel	\$7.95	\$0.94	1460
	Auto rental	\$0	\$0	1459
	Transportation - air & public	\$0	\$0	1459
	Lodging	\$0.06	\$0.03	1452
	Groceries	\$6.89	\$0.75	1461
	Restaurants	\$1.74	\$0.40	1448
	Bait	\$10.55	\$0.95	1462
	Ice	\$1.90	\$0.29	1462
	Parking	\$1.08	\$0.21	1429
	Boat fuel	\$33.09	\$5.52	1462
	Boat rental	\$0.86	\$0.41	1452
	Fish processing	\$0	\$0	1462
	Tournament fees	\$0	\$0	1454
	Gifts	\$0	\$0	1454
	Private Boat trip total	\$64.12	-	-
Shore	Auto fuel	\$7.38	\$0.68	718
	Auto rental	\$0	\$0	712
	Transportation - air & public	\$0	\$0	717
	Lodging	\$0.62	\$0.46	707
	Groceries	\$6.06	\$0.87	718
	Restaurants	\$1.36	\$0.31	703
	Bait	\$5.44	\$0.46	714
	Ice	\$0.25	\$0.05	682
	Parking	\$0.55	\$0.09	701
	Fish processing	\$0	\$0	715
	Tournament fees	\$0	\$0	714
	Gifts	\$0	\$0	710
	Shore trip total	\$21.66	-	-

New York

In New York recreational anglers spent an average of \$124.51 per angler day on for-hire trips, \$51.80 on private or rental boat trips, and \$17.89 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$84.00 (s.e. \$6.80) in expenditures, 67% of the mode total; groceries with \$12.94 (s.e. \$1.74) in expenditures, 10% of the mode total; and crew tips with \$12.15 (s.e. \$1.15) in expenditures, 10% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$21.82 (s.e. \$2.35) in expenditures, 42% of the mode total; bait with \$11.06 (s.e. \$1.48) in expenditures, 21% of the mode total; and groceries with \$10.72 (s.e. \$1.31) in expenditures, 21% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$5.78 (s.e. \$0.51), 32% of the mode total; groceries with \$5.64 (s.e. \$0.73), 32% of the mode total; and bait with \$4.27 (s.e. \$0.52), 24% of the mode total.

Marine recreational fishing trips in New York supported 5,739 full or part-time jobs, and contributed \$473 million in sales, \$209 million in income, and \$363 million in gross domestic product (GDP) to the state’s economy.

Table NY_ 1: Total Economic Impacts Generated in New York in 2017

Fishing Mode	Expense (\$1,000’s)	# Jobs	Sales (\$1,000’s)	Income (\$1,000’s)	Value Added (\$1,000’s)
For-Hire	\$29,345	397	\$41,943	\$15,967	\$27,087
Private Boat	\$355,142	3,664	\$296,374	\$132,046	\$230,960
Shore	\$140,124	1,678	\$135,005	\$61,162	\$105,316
Total Trip	\$524,611	5,739	\$473,322	\$209,175	\$363,363

Table NY_ 2: New York Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$9.37	\$1.50	969
	Auto rental	\$0	\$0	962
	Transportation - air & public	\$0.25	\$0.12	954
	Lodging	\$1.08	\$0.62	959
	Groceries	\$12.94	\$1.74	969
	Restaurants	\$2.33	\$0.63	958
	Bait	\$0.45	\$0.10	946
	Ice	\$0.72	\$0.17	963
	Parking	\$1.21	\$0.15	967
	Guide fees	\$84	\$6.80	966
	Crew tips	\$12.15	\$1.15	967
	Fish processing	\$0.01	\$0.01	959
	Tournament fees	\$0	\$0	968
	Gifts	\$0	\$0	963
	For-Hire trip total	\$124.51	-	-
Private Boat	Auto fuel	\$5.31	\$0.55	1481
	Auto rental	\$0	\$0	1477
	Transportation - air & public	\$0	\$0	1475
	Lodging	\$0	\$0	1476
	Groceries	\$10.72	\$1.31	1481
	Restaurants	\$1.40	\$0.39	1468
	Bait	\$11.06	\$1.48	1471
	Ice	\$1.10	\$0.17	1467
	Parking	\$0.35	\$0.09	1467
	Boat fuel	\$21.82	\$2.35	1463
	Boat rental	\$0	\$0	1469
	Fish processing	\$0	\$0	1473
	Tournament fees	\$0.04	\$0.04	1450
	Gifts	\$0	\$0	1479
	Private Boat trip total	\$51.80	-	-
Shore	Auto fuel	\$5.78	\$0.51	857
	Auto rental	\$0	\$0	854
	Transportation - air & public	\$0.01	\$0.01	842
	Lodging	\$0.19	\$0.18	845
	Groceries	\$5.64	\$0.73	857
	Restaurants	\$0.62	\$0.21	842
	Bait	\$4.27	\$0.52	858
	Ice	\$0.16	\$0.04	848
	Parking	\$1.22	\$0.27	849
	Fish processing	\$0	\$0	858
	Tournament fees	\$0	\$0	855
	Gifts	\$0	\$0	852
	Shore trip total	\$17.89	-	-

North Carolina

In North Carolina recreational anglers spent an average of \$472.72 per angler day on for-hire trips, \$49.58 on private or rental boat trips, and \$76.58 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$274.65 (s.e. \$21.90) in expenditures, 58% of the mode total; lodging with \$91.20 (s.e. \$9.65) in expenditures, 19% of the mode total; and restaurants with \$31.61 (s.e. \$3.38) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$14.37 (s.e. \$0.86) in expenditures, 29% of the mode total; auto fuel with \$10.11 (s.e. \$0.48) in expenditures, 20% of the mode total; and lodging with \$8.19 (s.e. \$1.03) in expenditures, 17% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$32.99 (s.e. \$2.65), 43% of the mode total; auto fuel with \$11.79 (s.e. \$0.73), 15% of the mode total; and restaurants with \$10.51 (s.e. \$0.70), 14% of the mode total.

Marine recreational fishing trips in North Carolina supported 21,126 full or part-time jobs, and contributed \$2 billion in sales, \$726 million in income, and \$1 billion in gross domestic product (GDP) to the state's economy.

Table NC_ 1: Total Economic Impacts Generated in North Carolina in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$63,578	1,119	\$104,952	\$35,545	\$60,417
Private Boat	\$235,111	2,492	\$249,484	\$87,048	\$150,896
Shore	\$1,215,896	17,515	\$1,715,605	\$603,837	\$1,043,260
Total Trip	\$1,514,585	21,126	\$2,070,041	\$726,430	\$1,254,573

Table NC_ 2: North Carolina Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$17.23	\$2.09	1004
	Auto rental	\$0.71	\$0.33	997
	Transportation - air & public	\$1.48	\$0.79	1000
	Lodging	\$91.20	\$9.65	997
	Groceries	\$24.39	\$3.15	1003
	Restaurants	\$31.61	\$3.38	999
	Bait	\$0.75	\$0.15	990
	Ice	\$2.83	\$0.53	1001
	Parking	\$0.19	\$0.06	975
	Guide fees	\$274.65	\$21.90	992
	Crew tips	\$24.08	\$3.41	996
	Fish processing	\$0.49	\$0.32	994
	Tournament fees	\$0	\$0	1000
	Gifts	\$3.11	\$0.80	998
	For-Hire trip total	\$472.72	-	-
Private Boat	Auto fuel	\$10.11	\$0.48	3604
	Auto rental	\$0	\$0	3597
	Transportation - air & public	\$0	\$0	3595
	Lodging	\$8.19	\$1.03	3604
	Groceries	\$6.84	\$0.37	3604
	Restaurants	\$5.61	\$0.42	3603
	Bait	\$3	\$0.23	3601
	Ice	\$1.42	\$0.09	3601
	Parking	\$0.01	\$0	3568
	Boat fuel	\$14.37	\$0.86	3601
	Boat rental	\$0	\$0	3582
	Fish processing	\$0	\$0	3600
	Tournament fees	\$0	\$0	3590
	Gifts	\$0.03	\$0.01	3560
	Private Boat trip total	\$49.58	-	-
Shore	Auto fuel	\$11.79	\$0.73	2947
	Auto rental	\$0	\$0	2924
	Transportation - air & public	\$0	\$0	2928
	Lodging	\$32.99	\$2.65	2944
	Groceries	\$10.28	\$0.68	2948
	Restaurants	\$10.51	\$0.70	2945
	Bait	\$4.27	\$0.24	2938
	Ice	\$1.21	\$0.14	2938
	Parking	\$3.48	\$0.32	2948
	Fish processing	\$0	\$0	2937
	Tournament fees	\$0	\$0	2926
	Gifts	\$2.05	\$0.37	2948
	Shore trip total	\$76.58	-	-

Oregon

In Oregon recreational anglers spent an average of \$439.11 per angler day on for-hire trips, \$175.13 on private or rental boat trips, and \$104.63 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$209.31 (s.e. \$40.08) in expenditures, 48% of the mode total; lodging with \$71.22 (s.e. \$11.42) in expenditures, 16% of the mode total; and restaurants with \$56.68 (s.e. \$8.50) in expenditures, 13% of the mode total. For private boat trips, the three highest expenditure categories were: auto fuel with \$37.06 (s.e. \$4.91) in expenditures, 21% of the mode total; boat fuel with \$30.42 (s.e. \$4.03) in expenditures, 17% of the mode total; and lodging with \$27.72 (s.e. \$4.24) in expenditures, 16% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$30.06 (s.e. \$5.19), 29% of the mode total; groceries with \$21.52 (s.e. \$3.05), 21% of the mode total; and lodging with \$18.51 (s.e. \$4.10), 18% of the mode total.

Marine recreational fishing trips in Oregon supported 1,390 full or part-time jobs, and contributed \$138 million in sales, \$54 million in income, and \$86 million in gross domestic product (GDP) to the state's economy.

Table OR_ 1: Total Economic Impacts Generated in Oregon in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$25,117	414	\$38,671	\$13,597	\$22,904
Private Boat	\$65,026	720	\$73,733	\$30,371	\$46,868
Shore	\$21,697	256	\$25,803	\$10,342	\$16,107
Total Trip	\$111,840	1,390	\$138,207	\$54,310	\$85,879

Table OR_ 2: Oregon Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$29.74	\$4.51	145
	Auto rental	\$0	\$0	143
	Transportation - public	\$0	\$0	145
	Transportation - air	\$0.05	\$0.04	142
	Lodging	\$71.22	\$11.42	146
	Groceries	\$28.61	\$3.85	145
	Restaurants	\$56.68	\$8.50	146
	Bait	\$0.97	\$0.46	143
	Ice	\$3.59	\$1.06	143
	Parking	\$1.62	\$0.61	143
	Guide fees	\$209.31	\$40.08	146
	Crew tips	\$19.88	\$2.75	142
	Fish processing	\$4.46	\$2.27	144
	Tournament fees	-	-	-
	Gifts	\$12.98	\$4.47	145
	For-Hire trip total	\$439.11	-	-
Private Boat	Auto fuel	\$37.06	\$4.91	495
	Auto rental	\$0.14	\$0.09	495
	Transportation - public	\$0	\$0	496
	Transportation - air	\$0.15	\$0.10	492
	Lodging	\$27.72	\$4.24	499
	Groceries	\$24.67	\$2.27	490
	Restaurants	\$23.80	\$2.96	499
	Bait	\$12.79	\$1.45	497
	Ice	\$4.66	\$0.55	497
	Parking	\$11.04	\$1.88	496
	Boat fuel	\$30.42	\$4.03	495
	Boat rental	\$0	\$0	490
	Fish processing	\$0.31	\$0.22	494
	Tournament fees	-	-	-
	Gifts	\$2.37	\$0.67	494
	Private Boat trip total	\$175.13	-	-
Shore	Auto fuel	\$30.06	\$5.19	145
	Auto rental	\$1.45	\$1	146
	Transportation - public	\$0	\$0	146
	Transportation - air	\$0.17	\$0.10	146
	Lodging	\$18.51	\$4.10	144
	Groceries	\$21.52	\$3.05	147
	Restaurants	\$17.51	\$3.37	147
	Bait	\$6.43	\$1.19	143
	Ice	\$3.28	\$0.81	147
	Parking	\$2.58	\$0.81	146
	Fish processing	\$0	\$0	147
	Tournament fees	-	-	-
	Gifts	\$3.12	\$1.09	146
	Shore trip total	\$104.63	-	-

Rhode Island

In Rhode Island recreational anglers spent an average of \$144.03 per angler day on for-hire trips, \$28.40 on private or rental boat trips, and \$18.61 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$98.63 (s.e. \$10.61) in expenditures, 68% of the mode total; groceries with \$9.92 (s.e. \$1.29) in expenditures, 7% of the mode total; and lodging with \$9.68 (s.e. \$2.09) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$10.04 (s.e. \$1.76) in expenditures, 35% of the mode total; auto fuel with \$7.30 (s.e. \$1.06) in expenditures, 26% of the mode total; and bait with \$5.21 (s.e. \$0.82) in expenditures, 18% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$6.64 (s.e. \$0.93), 36% of the mode total; lodging with \$4.18 (s.e. \$1.87), 22% of the mode total; and bait with \$4.07 (s.e. \$0.54), 22% of the mode total.

Marine recreational fishing trips in Rhode Island supported 579 full or part-time jobs, and contributed \$59 million in sales, \$29 million in income, and \$42 million in gross domestic product (GDP) to the state's economy.

Table RI_ 1: Total Economic Impacts Generated in Rhode Island in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$4,682	81	\$7,595	\$2,995	\$4,573
Private Boat	\$20,234	183	\$19,249	\$10,182	\$14,250
Shore	\$25,538	315	\$32,112	\$15,682	\$23,358
Total Trip	\$50,455	579	\$58,956	\$28,859	\$42,181

Table RI_ 2: Rhode Island Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$7.75	\$0.95	961
	Auto rental	\$0	\$0	953
	Transportation - air & public	\$0	\$0	950
	Lodging	\$9.68	\$2.09	945
	Groceries	\$9.92	\$1.29	958
	Restaurants	\$7.94	\$1.51	954
	Bait	\$0.53	\$0.18	946
	Ice	\$0.35	\$0.06	945
	Parking	\$0.12	\$0.03	949
	Guide fees	\$98.63	\$10.61	945
	Crew tips	\$8.12	\$1.55	925
	Fish processing	\$0	\$0	948
	Tournament fees	\$0.99	\$0.18	960
	Gifts	\$0	\$0	951
	For-Hire trip total	\$144.03	-	-
Private Boat	Auto fuel	\$7.30	\$1.06	774
	Auto rental	\$0	\$0	772
	Transportation - air & public	\$0	\$0	774
	Lodging	\$0.36	\$0.15	758
	Groceries	\$3.43	\$0.65	774
	Restaurants	\$1.54	\$0.38	763
	Bait	\$5.21	\$0.82	770
	Ice	\$0.52	\$0.10	770
	Parking	\$0	\$0	771
	Boat fuel	\$10.04	\$1.76	764
	Boat rental	\$0	\$0	766
	Fish processing	\$0	\$0	770
	Tournament fees	\$0	\$0	766
	Gifts	\$0	\$0	770
	Private Boat trip total	\$28.40	-	-
Shore	Auto fuel	\$6.64	\$0.93	724
	Auto rental	\$0	\$0	724
	Transportation - air & public	\$0.01	\$0	716
	Lodging	\$4.18	\$1.87	718
	Groceries	\$1.73	\$0.32	713
	Restaurants	\$1.85	\$0.56	714
	Bait	\$4.07	\$0.54	725
	Ice	\$0.13	\$0.06	716
	Parking	\$0	\$0	709
	Fish processing	\$0	\$0	725
	Tournament fees	\$0	\$0	725
	Gifts	\$0	\$0	714
	Shore trip total	\$18.61	-	-

South Carolina

In South Carolina recreational anglers spent an average of \$323.15 per angler day on for-hire trips, \$40.02 on private or rental boat trips, and \$68.44 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$220.10 (s.e. \$9.37) in expenditures, 68% of the mode total; lodging with \$29.61 (s.e. \$2.46) in expenditures, 9% of the mode total; and restaurants with \$22.13 (s.e. \$1.22) in expenditures, 7% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$10.53 (s.e. \$0.99) in expenditures, 26% of the mode total; auto fuel with \$7.32 (s.e. \$0.54) in expenditures, 18% of the mode total; and groceries with \$6.78 (s.e. \$0.59) in expenditures, 17% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$25.81 (s.e. \$2.83), 38% of the mode total; restaurants with \$14.75 (s.e. \$1.17), 22% of the mode total; and groceries with \$9.27 (s.e. \$0.68), 14% of the mode total.

Marine recreational fishing trips in South Carolina supported 6,875 full or part-time jobs, and contributed \$594 million in sales, \$196 million in income, and \$376 million in gross domestic product (GDP) to the state's economy.

Table SC_ 1: Total Economic Impacts Generated in South Carolina in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$22,928	408	\$35,608	\$11,825	\$20,489
Private Boat	\$115,466	1,420	\$107,713	\$33,020	\$70,151
Shore	\$345,998	5,047	\$450,922	\$151,241	\$285,456
Total Trip	\$484,391	6,875	\$594,243	\$196,086	\$376,096

Table SC_2: South Carolina Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$7.62	\$0.24	361
	Auto rental	\$0.25	\$0.01	361
	Transportation - air & public	\$2.99	\$0.22	353
	Lodging	\$29.61	\$2.46	353
	Groceries	\$14.81	\$1.23	361
	Restaurants	\$22.13	\$1.22	356
	Bait	\$0.60	\$0.08	359
	Ice	\$2.59	\$0.16	359
	Parking	\$0.29	\$0.01	361
	Guide fees	\$220.10	\$9.37	356
	Crew tips	\$18.64	\$1.66	358
	Fish processing	\$0	\$0	356
	Tournament fees	\$0	\$0	359
	Gifts	\$3.52	\$0.24	360
	For-Hire trip total	\$323.15	-	-
Private Boat	Auto fuel	\$7.32	\$0.54	1623
	Auto rental	\$0	\$0	1618
	Transportation - air & public	\$0	\$0	1615
	Lodging	\$2.94	\$0.74	1602
	Groceries	\$6.78	\$0.59	1623
	Restaurants	\$5.79	\$0.75	1622
	Bait	\$5.13	\$0.42	1621
	Ice	\$1.23	\$0.09	1621
	Parking	\$0.22	\$0.07	1609
	Boat fuel	\$10.53	\$0.99	1621
	Boat rental	\$0	\$0	1609
	Fish processing	\$0	\$0	1620
	Tournament fees	\$0	\$0	1609
	Gifts	\$0.08	\$0.04	1599
	Private Boat trip total	\$40.02	-	-
Shore	Auto fuel	\$7.70	\$0.48	780
	Auto rental	\$0	\$0	776
	Transportation - air & public	\$0.10	\$0.03	773
	Lodging	\$25.81	\$2.83	779
	Groceries	\$9.27	\$0.68	780
	Restaurants	\$14.75	\$1.17	775
	Bait	\$4.35	\$0.23	778
	Ice	\$0.61	\$0.07	778
	Parking	\$4.04	\$0.32	780
	Fish processing	\$0.06	\$0.01	778
	Tournament fees	\$0	\$0	778
	Gifts	\$1.75	\$0.22	780
	Shore trip total	\$68.44	-	-

Texas

In Texas recreational anglers spent an average of \$428.42 per angler day on for-hire trips, \$177.29 on private or rental boat trips, and \$155.85 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$149.16 (s.e. \$33.59) in expenditures, 35% of the mode total; lodging with \$78.69 (s.e. \$24.03) in expenditures, 18% of the mode total; and restaurants with \$61.10 (s.e. \$26.47) in expenditures, 14% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$36.54 (s.e. \$7.87) in expenditures, 21% of the mode total; auto fuel with \$33.31 (s.e. \$4.35) in expenditures, 19% of the mode total; and groceries with \$31.09 (s.e. \$4.43) in expenditures, 18% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$32.42 (s.e. \$6.47), 21% of the mode total; groceries with \$30.46 (s.e. \$3.37), 20% of the mode total; and restaurants with \$28.41 (s.e. \$3.65), 18% of the mode total.

Marine recreational fishing trips in Texas supported 2,973 full or part-time jobs, and contributed \$377 million in sales, \$120 million in income, and \$228 million in gross domestic product (GDP) to the state's economy.

Table TX_1: Total Economic Impacts Generated in Texas in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$72,161	1,097	\$121,965	\$41,158	\$73,447
Private Boat	\$158,791	1,876	\$254,812	\$79,074	\$154,631
Shore	NA	NA	NA	NA	NA
Total Trip	\$230,952	2,973	\$376,777	\$120,232	\$228,078

Table TX_ 2: Texas Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$44.28	\$26.81	138
	Auto rental	\$7.92	\$3.67	138
	Transportation - public	\$0.04	\$0.04	138
	Transportation - air	\$4.77	\$2.14	134
	Lodging	\$78.69	\$24.03	138
	Groceries	\$37.08	\$14.03	135
	Restaurants	\$61.10	\$26.47	137
	Bait	\$9.79	\$4.88	144
	Ice	\$2.57	\$0.79	139
	Parking	\$1	\$0.49	134
	Guide fees	\$149.16	\$33.59	146
	Crew tips	\$21.36	\$5.05	137
	Fish processing	\$0.05	\$0.04	142
	Tournament fees	-	-	-
	Gifts	\$10.61	\$6.78	135
	For-Hire trip total	\$428.42	-	-
Private Boat	Auto fuel	\$33.31	\$4.35	240
	Auto rental	\$0.08	\$0.05	230
	Transportation - public	\$0	\$0	238
	Transportation - air	\$0.68	\$0.46	226
	Lodging	\$21.57	\$10.31	232
	Groceries	\$31.09	\$4.43	240
	Restaurants	\$25.40	\$4.91	240
	Bait	\$17.97	\$2.40	244
	Ice	\$6.57	\$1.02	244
	Parking	\$3.11	\$0.71	237
	Boat fuel	\$36.54	\$7.87	240
	Boat rental	\$0	\$0	229
	Fish processing	\$0	\$0	241
	Tournament fees	-	-	-
	Gifts	\$0.97	\$0.61	231
	Private Boat trip total	\$177.29	-	-
Shore	Auto fuel	\$26.13	\$2.48	218
	Auto rental	\$0.37	\$0.31	212
	Transportation - public	\$0	\$0	210
	Transportation - air	\$0	\$0	207
	Lodging	\$32.42	\$6.47	217
	Groceries	\$30.46	\$3.37	215
	Restaurants	\$28.41	\$3.65	218
	Bait	\$16.05	\$1.84	220
	Ice	\$4.03	\$0.56	220
	Parking	\$5.22	\$0.92	218
	Fish processing	\$0	\$0	220
	Tournament fees	-	-	-
	Gifts	\$12.76	\$1.89	218
	Shore trip total	\$155.85	-	-

Virginia

In Virginia recreational anglers spent an average of \$287.56 per angler day on for-hire trips, \$50.99 on private or rental boat trips, and \$32.61 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$214.05 (s.e. \$25.79) in expenditures, 74% of the mode total; lodging with \$34.22 (s.e. \$4.93) in expenditures, 12% of the mode total; and groceries with \$12.71 (s.e. \$2.23) in expenditures, 4% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$14.76 (s.e. \$1.89) in expenditures, 29% of the mode total; auto fuel with \$11.64 (s.e. \$1.24) in expenditures, 23% of the mode total; and bait with \$9.66 (s.e. \$0.93) in expenditures, 19% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$8.86 (s.e. \$3.27), 27% of the mode total; bait with \$6.08 (s.e. \$0.71), 19% of the mode total; and parking with \$5.99 (s.e. \$0.70), 18% of the mode total.

Marine recreational fishing trips in Virginia supported 2,943 full or part-time jobs, and contributed \$312 million in sales, \$114 million in income, and \$203 million in gross domestic product (GDP) to the state's economy.

Table VA_1: Total Economic Impacts Generated in Virginia in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$11,557	206	\$18,977	\$6,321	\$11,235
Private Boat	\$126,024	1,094	\$119,676	\$42,121	\$77,237
Shore	\$127,441	1,643	\$173,746	\$65,630	\$114,217
Total Trip	\$265,022	2,943	\$312,399	\$114,072	\$202,689

Table VA_ 2: Virginia Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$9.93	\$0.57	531
	Auto rental	\$0	\$0	529
	Transportation - air & public	\$0	\$0	525
	Lodging	\$34.22	\$4.93	531
	Groceries	\$12.71	\$2.23	531
	Restaurants	\$12.43	\$1.66	526
	Bait	\$0	\$0	510
	Ice	\$0.29	\$0.03	530
	Parking	\$0.54	\$0.07	531
	Guide fees	\$214.05	\$25.79	526
	Crew tips	\$3.13	\$1.60	526
	Fish processing	\$0	\$0	530
	Tournament fees	\$0	\$0	531
	Gifts	\$0.26	\$0.04	531
	For-Hire trip total	\$287.56	-	-
Private Boat	Auto fuel	\$11.64	\$1.24	1464
	Auto rental	\$0	\$0	1454
	Transportation - air & public	\$0	\$0	1463
	Lodging	\$3.39	\$1.17	1447
	Groceries	\$6.66	\$0.81	1464
	Restaurants	\$1.91	\$0.68	1445
	Bait	\$9.66	\$0.93	1460
	Ice	\$2.35	\$0.38	1460
	Parking	\$0.62	\$0.13	1442
	Boat fuel	\$14.76	\$1.89	1460
	Boat rental	\$0	\$0	1448
	Fish processing	\$0	\$0	1460
	Tournament fees	\$0	\$0	1457
	Gifts	\$0	\$0	1463
	Private Boat trip total	\$50.99	-	-
Shore	Auto fuel	\$4.66	\$0.89	573
	Auto rental	\$0	\$0	576
	Transportation - air & public	\$0	\$0	579
	Lodging	\$8.86	\$3.27	575
	Groceries	\$3.31	\$0.62	581
	Restaurants	\$2.85	\$0.76	574
	Bait	\$6.08	\$0.71	578
	Ice	\$0.84	\$0.20	572
	Parking	\$5.99	\$0.70	577
	Fish processing	\$0	\$0	578
	Tournament fees	\$0	\$0	578
	Gifts	\$0.02	\$0.02	575
	Shore trip total	\$32.61	-	-

Washington

In Washington recreational anglers spent an average of \$535.84 per angler day on for-hire trips, \$244.44 on private or rental boat trips, and \$97.39 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$290.71 (s.e. \$46.95) in expenditures, 54% of the mode total; lodging with \$73.66 (s.e. \$14.15) in expenditures, 14% of the mode total; and restaurants with \$44.68 (s.e. \$6.20) in expenditures, 8% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$63.20 (s.e. \$9.97) in expenditures, 26% of the mode total; groceries with \$42.31 (s.e. \$5.62) in expenditures, 17% of the mode total; and auto fuel with \$38.47 (s.e. \$5.20) in expenditures, 16% of the mode total. For shore trips, the top three expenditure categories were: auto fuel with \$24.09 (s.e. \$4.40), 25% of the mode total; groceries with \$21.34 (s.e. \$3.67), 22% of the mode total; and lodging with \$17.95 (s.e. \$4.71), 18% of the mode total.

Marine recreational fishing trips in Washington supported 3,219 full or part-time jobs, and contributed \$435 million in sales, \$145 million in income, and \$262 million in gross domestic product (GDP) to the state's economy.

Table WA_ 1: Total Economic Impacts Generated in Washington in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$39,138	606	\$63,000	\$21,720	\$37,514
Private Boat	\$232,531	2,133	\$310,044	\$101,224	\$185,541
Shore	\$44,465	480	\$61,608	\$21,650	\$39,028
Total Trip	\$316,134	3,219	\$434,652	\$144,594	\$262,083

Table WA_ 2: Washington Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$31.47	\$3.50	102
	Auto rental	\$0.49	\$0.25	102
	Transportation - public	\$0.31	\$0.21	101
	Transportation - air	\$7.75	\$6.04	96
	Lodging	\$73.66	\$14.15	102
	Groceries	\$30.30	\$6.61	102
	Restaurants	\$44.68	\$6.20	104
	Bait	\$1.82	\$0.60	106
	Ice	\$5.47	\$1.22	107
	Parking	\$2.61	\$0.75	101
	Guide fees	\$290.71	\$46.95	110
	Crew tips	\$35.79	\$4.93	109
	Fish processing	\$6.11	\$2.39	109
	Tournament fees	-	-	-
	Gifts	\$4.67	\$1.45	101
	For-Hire trip total	\$535.84	-	-
Private Boat	Auto fuel	\$38.47	\$5.20	496
	Auto rental	\$0.05	\$0.04	491
	Transportation - public	\$2.03	\$0.65	502
	Transportation - air	\$1.52	\$0.48	490
	Lodging	\$32.04	\$5.30	501
	Groceries	\$42.31	\$5.62	503
	Restaurants	\$25.91	\$3.72	503
	Bait	\$18.54	\$3.52	522
	Ice	\$7.75	\$1.10	521
	Parking	\$10.65	\$1.70	495
	Boat fuel	\$63.20	\$9.97	519
	Boat rental	\$0.01	\$0.01	513
	Fish processing	\$0.09	\$0.04	511
	Tournament fees	-	-	-
	Gifts	\$1.87	\$0.60	499
	Private Boat trip total	\$244.44	-	-
Shore	Auto fuel	\$24.09	\$4.40	134
	Auto rental	\$0.22	\$0.10	131
	Transportation - public	\$0.92	\$0.43	131
	Transportation - air	\$0.10	\$0.07	125
	Lodging	\$17.95	\$4.71	132
	Groceries	\$21.34	\$3.67	132
	Restaurants	\$14.39	\$3.18	130
	Bait	\$9.73	\$2.32	142
	Ice	\$1.79	\$0.43	140
	Parking	\$6.60	\$1.83	131
	Fish processing	\$0	\$0	142
	Tournament fees	-	-	-
	Gifts	\$0.26	\$0.12	128
	Shore trip total	\$97.39	-	-

West Florida

In West Florida recreational anglers spent an average of \$345.30 per angler day on for-hire trips, \$49.65 on private or rental boat trips, and \$43.67 on shore trips. For for-hire trips, the three highest expenditure categories were: guide fees with \$195.94 (s.e. \$9.18) in expenditures, 57% of the mode total; lodging with \$57.94 (s.e. \$5.80) in expenditures, 17% of the mode total; and restaurants with \$32.94 (s.e. \$4.21) in expenditures, 10% of the mode total. For private boat trips, the three highest expenditure categories were: boat fuel with \$13.35 (s.e. \$0.69) in expenditures, 27% of the mode total; auto fuel with \$8.36 (s.e. \$0.33) in expenditures, 17% of the mode total; and groceries with \$7.58 (s.e. \$0.38) in expenditures, 15% of the mode total. For shore trips, the top three expenditure categories were: lodging with \$13.26 (s.e. \$2.53), 30% of the mode total; auto fuel with \$7.11 (s.e. \$0.49), 16% of the mode total; and groceries with \$6.82 (s.e. \$0.75), 16% of the mode total.

Marine recreational fishing trips in West Florida supported 25,480 full or part-time jobs, and contributed \$3 billion in sales, \$895 million in income, and \$2 billion in gross domestic product (GDP) to the state's economy.

Table WFL_ 1: Total Economic Impacts Generated in West Florida in 2017

Fishing Mode	Expense (\$1,000's)	# Jobs	Sales (\$1,000's)	Income (\$1,000's)	Value Added (\$1,000's)
For-Hire	\$242,652	4,175	\$430,144	\$149,684	\$256,148
Private Boat	\$832,301	9,218	\$954,882	\$323,281	\$616,073
Shore	\$875,464	12,087	\$1,250,684	\$421,571	\$800,311
Total Trip	\$1,950,417	25,480	\$2,635,710	\$894,536	\$1,672,532

Table WFL_ 2: West Florida Average Trip Expenditures (2017\$)

Mode	Category	Mean	Std. Err.	Obs.
For-Hire	Auto fuel	\$9.38	\$0.89	1853
	Auto rental	\$2.54	\$0.48	1839
	Transportation - air & public	\$10.25	\$1.35	1836
	Lodging	\$57.94	\$5.80	1854
	Groceries	\$15.16	\$0.82	1854
	Restaurants	\$32.94	\$4.21	1854
	Bait	\$0.28	\$0.09	1833
	Ice	\$0.55	\$0.14	1830
	Parking	\$0.08	\$0.02	1839
	Guide fees	\$195.94	\$9.18	1838
	Crew tips	\$18.26	\$1.88	1850
	Fish processing	\$0.10	\$0.06	1838
	Tournament fees	\$0	\$0	1845
	Gifts	\$1.88	\$0.29	1832
	For-Hire trip total	\$345.30	-	-
Private Boat	Auto fuel	\$8.36	\$0.33	10419
	Auto rental	\$0	\$0	10347
	Transportation - air & public	\$0.09	\$0.02	10356
	Lodging	\$5.53	\$0.63	10420
	Groceries	\$7.58	\$0.38	10420
	Restaurants	\$4.64	\$0.60	10420
	Bait	\$5.75	\$0.20	10418
	Ice	\$1.40	\$0.08	10418
	Parking	\$1.30	\$0.10	10420
	Boat fuel	\$13.35	\$0.69	10418
	Boat rental	\$1.35	\$0.26	10418
	Fish processing	\$0	\$0	10416
	Tournament fees	\$0	\$0	10366
	Gifts	\$0.30	\$0.06	10420
	Private Boat trip total	\$49.65	-	-
Shore	Auto fuel	\$7.11	\$0.49	2757
	Auto rental	\$0.16	\$0.05	2734
	Transportation - air & public	\$1.39	\$0.25	2754
	Lodging	\$13.26	\$2.53	2757
	Groceries	\$6.82	\$0.75	2757
	Restaurants	\$6.65	\$1.06	2757
	Bait	\$4.91	\$0.28	2755
	Ice	\$0.58	\$0.08	2755
	Parking	\$2.36	\$0.25	2757
	Fish processing	\$0	\$0	2754
	Tournament fees	\$0	\$0	2753
	Gifts	\$0.43	\$0.07	2757
	Shore trip total	\$43.67	-	-

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GLOSSARY

Angler

A person catching finfish with no intent to sell, including people releasing all or part of the catch. Also known as a recreational fisherman. The method of fishing includes rod and reel, nets, and spears.

Effort

The number of marine recreational fishing trips taken by marine recreational fishermen (anglers).

Fishing Mode

The type of recreational fishing a recreational fisherman (angler) engaged in such as fishing from shore, from a private or rental boat, or from a for-hire boat.

Fishing Trip

For this report, a fishing trip refers to any part of a single day of marine recreational fishing.

For-hire Mode

Refers to fishing trips that took place on a party (also referred to as a headboat) or charter boat.

Trip Expenditures

The expenses incurred by recreational fishermen (anglers) related to a specific fishing trip, such as expenditures on transportation costs, food and lodging, boat fuel and oil, ice, and guide fees.

APPENDIX A

SURVEY MATERIALS AND QUESTIONNAIRES

Intercept Survey Add-on Form: Atlantic and Gulf states (Alabama, Florida, Mississippi)

1. ASSIGNMENT NO. Please indicate if this is your first or second assignment today by writing "1" or "2."

2. INTERVIEWER ID

3. YR/MO/DAY 2016

4. INTERCEPT NO.

5. INTERVIEW TIME Time this interview was completed (use 2400 clock)

6. STATE CODE 7. COUNTY CODE 8. SITE CODE

9. SEAS INTERVIEW STATUS
 1 Fully Complete 3 Initial Ref. of SEAS
 2 Partially Complete 4 Less than 16 Years

In order to qualify for this survey, respondent must be at least 16 years of age. If you are unable to determine respondent's age, please ask: Are you at least 16 years of age? If respondent is not at least 16 years of age, terminate interview.

10. Is this fishing trip part of a longer trip in which you will spend at least one night away from your permanent or seasonal residence, or is this a one-day fishing trip?

1 One day- code q.11-q.13 as "98"
 2 Longer
 8 Don't Know - code q.11-q.13 as "98"
 9 Refused - code q.11-q.13 as "98"

11. How many nights will you be away from your residence on this trip?

Number of Nights

98 Don't Know/ Not applicable
 99 Refused

12. As of this morning, how many nights have you already been away from your residence on this trip?

Number of Nights

98 Don't Know/ Not applicable
 99 Refused

13. For how many days of this trip will you go saltwater fishing?

Number of Days

98 Don't Know/ Not applicable
 99 Refused

14. What was the primary purpose of this entire trip away from home?

1 Fishing
 2 Vacation or other personal trip
 3 Business
 8 Don't Know/ Not applicable
 9 Refused

15a. Including yourself, how many people traveled together on this entire trip?

Number of People

15b. Of the people who traveled with you today, how many people were fishing, including yourself?

Number of People

16. Now I would like to ask you about the amount of money that you personally have spent and will spend for your entire trip away from home, not just the time spent fishing. For each category, please estimate your personal expenses. (Show expenses card and record dollar amounts in each category. Leave blank any categories with no expenses. If angler refuses to provide any expenditures or does not know any expenditures, record 998 in the "Other" row).

Type of expense	Your Personal Expenses
Auto, truck, or RV fuel	\$.00
Auto, truck, or RV rental	\$.00
Airfare or other public transportation	\$.00
Lodging	\$.00
Food and drink from grocery or convenience stores	\$.00
Food and drink from restaurants or bars	\$.00
Bait	\$.00
Ice	\$.00
Parking or site access fees	\$.00
Boat fuel and oil	\$.00
Boat rental	\$.00
Party, charter or guide fees	\$.00
Fish filleting fee or tips paid to charter crew	\$.00
Processing, freezing, or shipping paid to processing company	\$.00
Tournament fees	\$.00
Gifts or souvenirs	\$.00
Other _____	\$.00

17. What percentage of the expenses you just described were spent in (state of intercept)?

Percentage (0-100%)

998 Don't Know/ Not applicable 999 Refused

Example Cover Letters and Survey Questionnaires for Mail Mode

Louisiana (identical to Alaska, Oregon, Texas, and Washington)

California

Hawaii

Prenotice Letter

United States Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Fisheries Service



<Date>
<FNAME> <LNAME>
< ADDRESS>
<CITY>, <ST> <ZIPCODE>

Dear <FNAME>,

We are writing to ask for your help with a study about the economic importance of marine recreational fishing in the United States. In a few days you will be receiving the 2016 Marine Recreational Fishing Expenditure Survey that is being conducted by NOAA Fisheries as part of a nationwide study. The questionnaire will ask about the money you spent on marine recreational fishing trips in <state>.

We are writing to you today because people often like to know ahead of time that they will be receiving a survey.

Your responses to the survey are voluntary and will be kept confidential.

Please do not hesitate to call 844-356-4607 or email us at 2016NES@icfsurveysupport.com, if you have any questions. We appreciate your time and look forward to receiving your completed questionnaire.

Sincerely,

A handwritten signature in blue ink that reads "Sabrina Lovell".

Sabrina Lovell
Office of Science and Technology
NOAA Fisheries Service
Silver Spring, MD 20910



Cover letter

United States Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Fisheries Service



<Date>
<FNAME> <LNAME>
<ADDRESS>
<CITY>, <ST> <ZIPCODE>

Dear <FNAME>,

We know recreational fishing is important to you. We would like your help in showing just how important recreational fishing is to coastal economies across the United States. NOAA Fisheries Service, the federal agency responsible for the conservation of our ocean resources, is conducting a survey about the economic importance of marine recreational fishing in the United States. Please consider taking some time to fill out and send back the enclosed survey.

You are one of a few randomly selected anglers that we are inviting to participate in this critical research. The enclosed questionnaire asks about your most recent fishing trip in 2016 in <state> and the money you spent on that trip. This information enables us to understand the contribution of recreational anglers to the economies of coastal states and the nation, and allows policy makers to make more informed decisions for the good of the resource and the sport.

We realize we are asking for sensitive information and as such, have an enormous responsibility to ensure that information is used appropriately and kept secure. Your responses are completely voluntary and confidential. The questionnaire has an identification number for mailing purposes only; we use it to check your survey off the list when it is returned. If you prefer to complete the survey online, please go to the website below and enter your personal master identification number (ID).

Survey Website: www.2016NES.com

Master ID: < MID>

The overall results of this research will be made available to fisheries management councils, state agencies, and all interested citizens. Results of a similar nationwide recreational angler expenditure survey in 2011 are available at: <http://www.st.nmfs.noaa.gov/economics/publications/marine-angler-expenditures/marine-angler-2011>.

For questions on the survey please email 2016NES@icfsurveysupport.com or call 844-356-4607. Thank you for your assistance and we look forward to receiving your responses.

Sincerely,

A handwritten signature in blue ink that reads "Sabrina G. Lovell".

Sabrina Lovell
Office of Science and Technology
NOAA Fisheries Service
Silver Spring, MD 20910



Reminder postcard text

<Date>

Last week we mailed you a questionnaire asking about your fishing activities and expenses in <state>. If you have already completed and returned the survey to us, please accept our sincere thanks. If you have not had a chance to return it, please do so in the next few days. The survey was sent to a small sample of recreational anglers, so it is important that your survey be included in the study to accurately reflect the fishing community. Even if you only fished once in 2016, your responses are important.

If by some chance you did not receive the questionnaire, or misplaced it, please call 844-356-4607 or email 2016NES@icfsurveysupport.com, and we will get another copy in the mail to you.

Sincerely,



NOAA Fisheries Service
Silver Spring, MD 20910



Second reminder letter

United States Department of Commerce
National Oceanic and Atmospheric Administration
NOAA Fisheries Service



<Date>
<FNAME > <LNAME>
<ADDRESS>
<CITY>, <ST> <ZIPCODE>

Dear <insert name>,

About three weeks ago, we sent you a survey in the mail that asked about your recreational fishing activities and expenses. As of <date>, we have not yet received your completed survey. If you have already returned your survey, thank you very much for your cooperation. In the event that your survey has been misplaced, a replacement is enclosed.

This survey is a high priority for NOAA Fisheries and for the recreational fishing community who have asked for updated economic information on marine recreational fishing. The survey results will improve our understanding of the contributions of marine recreational fishing to the economies of coastal states and to the nation.

We are writing to you because your responses are very important to the validity of the overall research. In order for the results of this survey to be truly representative of all anglers, it is essential that each angler return his or her survey questionnaire. Please be assured that we value your privacy. Your answers are strictly voluntary and confidential. If you prefer to complete the survey online, please go to the website below and enter your personal master identification number (ID).

Survey Website: www.2016NES.com

Master ID: < MID>

Your cooperation is greatly appreciated. If you have any questions about the survey administration or experience technical difficulties while completing the survey online please contact 2016NES@icfsurveysupport.com.

Cordially,

A handwritten signature in blue ink that reads "Sabrina Lovell".

Sabrina Lovell
Office of Science and Technology
NOAA Fisheries Service



9. On your most recent day of marine fishing, how much did you PERSONALLY spend for the following items? If your most recent day of fishing was part of a longer trip away from home, please provide your expenses for the entire trip. Include expenses that you paid for others, but do not include any expenses paid by others for you. For each item, indicate the percentage of your expense that was spent in Louisiana. If you spent nothing, please write "0" for that item.

(A) Type of Expense	(B) Your Personal Expense (Round to the nearest dollar)	(C) % Spent in Louisiana (0-100%)
Food and drink from grocery or convenience stores	\$ _____ .00	_____ %
Food and drink from restaurants and bars	\$ _____ .00	_____ %
Parking, site access fees, and tolls	\$ _____ .00	_____ %
Auto, truck, or RV fuel	\$ _____ .00	_____ %
Auto, truck, or RV rental	\$ _____ .00	_____ %
Bait	\$ _____ .00	_____ %
Ice	\$ _____ .00	_____ %
Boat fuel and oil	\$ _____ .00	_____ %
Boat rental	\$ _____ .00	_____ %
Party, charter, or guide tickets and surcharges	\$ _____ .00	_____ %
Galley tab & souvenirs bought on charter/party boat	\$ _____ .00	_____ %
Fish filleting fee and/or Tips paid to charter crew	\$ _____ .00	_____ %
Lodging (hotels, motels, campgrounds, etc.)	\$ _____ .00	_____ %
Public transportation (bus, train, taxi, ferry, etc.)	\$ _____ .00	_____ %
Airfare	\$ _____ .00	_____ %
Gifts or souvenirs	\$ _____ .00	_____ %
Processing, freezing, or shipping fee paid to fish processing company	\$ _____ .00	_____ %

If you had none of the above expenses, check here:

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Sabrina Lovell, NOAA Fisheries Service, 1315 East-West Hwy., Silver Spring, MD 20910. This is a voluntary survey, and responses are kept confidential as required by section 402(b) of the Magnuson-Stevens Act and NOAA Administrative Order 216-100, Confidentiality of Fisheries Statistics, and will not be released for public use except in aggregate statistical form without identification as to its source. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.



2016 California Marine Recreational Fishing Expenditure Survey

We would like to know about your most recent day of marine recreational fishing in California or from a boat that left from California. **“Marine”** means **SALTWATER** (e.g., open ocean) or any portion of a bay, sound, or river that is saltwater or brackish water. A **day of fishing** is *any portion of a day* spent fishing for **finfish**.

- Do not include days spent fishing for shellfish or squid.
- Do not include any freshwater fishing trips.

Except when asked, please do not include any information for other household members or other fishing party members. Thank you for your help in this important survey.

1. In 2016, in what month was your most recent day of marine fishing in California? Month _____

2. During your most recent day of marine fishing in California, did you primarily fish from a: *(Please indicate your primary trip type by making an “X” in **one** box only)*
 Party or charter boat Private boat Beach or bank Pier, jetty, bridge or dock

3. On your most recent day of marine fishing, what California city or town was closest to the place where you launched a boat, cast a line from shore, or boarded a party or charter boat?

City or town: _____

4. What were the primary and secondary species of fish you were targeting on this day?

 Primary

 Secondary

Whatever I could catch

5. On your most recent day of marine fishing in California or from a boat that left from California, did you fish in:
 U.S. waters only Non-U.S. waters only Both U.S. and non-U.S. waters

- 6a. **Including yourself**, how many people traveled with you to your most recent day of marine fishing?
 Number of people, including yourself

- 6b. Of the people who traveled with you, how many people were fishing **including yourself**?
 Number of people, including yourself

- 7a. On your most recent day of fishing, did you spend one or more nights away from your permanent or seasonal residence? Yes (**GO TO QUESTION 7b**) No (**SKIP TO QUESTION 8**)

- 7b. How many nights did you spend away from home? How many of those nights, if any, were spent on a boat?

No. of nights away from home: _____
No. of nights on a boat: _____

- 7c. How many days on this trip did you go fishing? Number of days

- 7d. What was the **primary** purpose of this entire trip away from home? *(mark one box)*
 Fishing Vacation or personal reasons Business

8. During the past **12 months** that includes your most recent day of fishing, how many days have you spent marine fishing for finfish (not shellfish or squid) in California?
 Number of days *(count partial days as full days)*

On your most recent day of marine fishing, how much did you PERSONALLY spend for the following items? If your most recent day of fishing was part of a longer trip away from home, please provide your expenses for the entire trip. Include expenses that you paid for others, but do not include any expenses paid by others for you. For each item, indicate the percentage of your expense that was spent in California. If you spent nothing on a particular expense, please write "0" for that item.

(A) Type of Expense	(B) Your Personal Expense (Round to the nearest dollar)	(C) % Spent in California (0-100%)
Food and drink from grocery or convenience stores	\$ _____ .00	_____ %
Food and drink from restaurants and bars	\$ _____ .00	_____ %
Parking and site access fees	\$ _____ .00	_____ %
Auto, truck or RV fuel	\$ _____ .00	_____ %
Auto, truck, or RV rental	\$ _____ .00	_____ %
Bait	\$ _____ .00	_____ %
Ice	\$ _____ .00	_____ %
Boat fuel and oil	\$ _____ .00	_____ %
Boat rental	\$ _____ .00	_____ %
Party, charter, or guide tickets and surcharges	\$ _____ .00	_____ %
Galley tab and souvenirs bought on charter/party boat	\$ _____ .00	_____ %
Fish filleting fee and/or Tips paid to charter crew	\$ _____ .00	_____ %
Lodging (hotels, motels, campgrounds, etc.)	\$ _____ .00	_____ %
Public transportation (bus, train, taxi, ferry)	\$ _____ .00	_____ %
Airfare	\$ _____ .00	_____ %
Gifts or souvenirs	\$ _____ .00	_____ %
Processing, freezing, or shipping fee paid to fish processing company	\$ _____ .00	_____ %

If you had none of the expenses above, check here:

OMB Control No. 0648-0693. Expiration Date: 04/30/2017.

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to Sabrina Lovell, NOAA Fisheries Service, 1315 East-West Hwy., Silver Spring, MD 20910. This is a voluntary survey, and responses are kept confidential as required by section 402(b) of the Magnuson-Stevens Act and NOAA Administrative Order 216-100, Confidentiality of Fisheries Statistics, and will not be released for public use except in aggregate statistical form without identification as to its source. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.



2017 Hawaii Marine Recreational Fishing Expenditure Survey

We would like to know about your most recent days of marine recreational fishing in Hawaii from a private boat and/or from shore in 2017. "Marine" means SALTWATER (e.g., open ocean or a bay). A day of fishing is any portion of a day spent fishing for finfish.

- Do not include days spent fishing for shellfish.
- Do not include any freshwater fishing trips.

Except when asked, please do not include any information for other household members or other fishing party members.

Questions 1-5 refer to your most recent **private boat** (including sailboat, jet-ski, kayak, canoe, SUP) fishing trip in Hawaii.

If you did not fish by **private boat** in saltwater in 2017, check here and skip to Question 6.

1. In 2017, in what month was your most recent day of marine fishing from a private boat?

Month _____

2. How many people were in your fishing party, including yourself? Number of people

3a. On your most recent day of marine fishing from a private boat, did you spend 24 hours or more away from your permanent or seasonal residence?

Yes (GO TO QUESTION 3b)

No (SKIP TO QUESTION 4)

3b. How many nights did you spend away from home? Number of nights

3c. How many days on this trip did you go fishing? Number of days

3d. What was the primary purpose of this entire trip away from home? (mark one box)

Fishing

Vacation or personal reasons

Business

4. On your most recent day of marine fishing by private boat, how much did you PERSONALLY spend for the following items? If your most recent day of fishing was part of a longer trip away from home, please provide your expenses for the entire trip. Include expenses that you paid for others, but do not include any expenses paid by others for you.

(A) Type of Expense	(B) Your Personal Expense
Bait	\$ _____ .00
Ice	\$ _____ .00
Boat fuel and oil	\$ _____ .00
Auto, truck, or RV fuel	\$ _____ .00
Auto, truck, or RV rental	\$ _____ .00
Food and drink from restaurants and bars	\$ _____ .00
Food and drink from grocery or convenience stores	\$ _____ .00
Lodging (hotels, motels, campgrounds, etc.)	\$ _____ .00
Airfare	\$ _____ .00
Gifts or souvenirs	\$ _____ .00
Tournament fees	\$ _____ .00

If you had none of the above expenses, check here:

5. What was the **primary gear / type** of fishing used on your most fishing **private boat** fishing trip? (*mark one box*)

- Trolling Whipping / Casting Deep Bottom-fishing Spearfishing Other _____

Questions 6-10 refer to your most recent shore fishing trip in Hawaii.

If you did not fish from shore in 2017, check here and skip to Question 11.

6. In 2017, in what month was your most recent day of marine fishing from shore?

Month _____

7. How many people were in your fishing party, including yourself? Number of people

8a. On your most recent day of marine fishing from shore, did you spend more than 24 hours away from your permanent or seasonal residence?

- Yes (**GO TO QUESTION 8b**) No (**SKIP TO QUESTION 9**)

8b. How many nights did you spend away from home? Number of nights

8c. How many days on this trip did you go fishing? Number of days

8d. What was the **primary purpose** of this entire trip away from home? (*mark one box*)

- Fishing Vacation or personal reasons Business

9. On your most recent day of marine fishing from shore, how much did you **PERSONALLY** spend for the following items? If your most recent day of fishing was part of a longer trip away from home, please provide your expenses for the entire trip. Include expenses that you paid for others, but do not include any expenses paid by others for you.

(A) Type of Expense	(B) Your Personal Expense
Bait	\$ _____ .00
Ice	\$ _____ .00
Auto, truck, or RV fuel	\$ _____ .00
Auto, truck, or RV rental	\$ _____ .00
Food and drink from restaurants and bars	\$ _____ .00
Food and drink from grocery or convenience stores	\$ _____ .00
Lodging (hotels, motels, campgrounds, etc.)	\$ _____ .00
Airfare	\$ _____ .00
Gifts or souvenirs	\$ _____ .00
Tournament fees	\$ _____ .00

If you had none of the above expenses, check here:

10. What was the **primary gear / type** of fishing used in your most **shore** fishing trip? (*mark one box*)

- Rod and reel or pole and line Spearfishing Other _____

11. In the past 12 months, how many days did you fish in Hawaii in each of the modes below?

Days fished by private boat Days fished from shore Days fished on a charter boat