

A Social and Economic Survey of For-Hire Fishing Industry in North Carolina 2022

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Abstract

The for-hire fleet is a key part of the recreational fishing fleet in North Carolina. Social and Economic surveys of the for-hire fleet in North Carolina have been limited with the most recent one we are aware of conducted in 2009 (Dumas et al. 2009). Since 2009 the industry has grown by over 75%. Given the change in size of the industry, it was prudent for the North Carolina Division of Marine Fisheries (NCDMF) to provide an updated assessment of the economic value of the for-hire fleet. The NCDMF undertook a multi-method study utilizing semi-structured interviews with for-hire captains and a paper survey distributed to 930 individual license holders in the state. Staff conducted 16 interviews with for-hire captains along the coast in the fall of 2022. This was followed by a written survey distributed to all current for-hire license holders in the state in the winter of 2023. A total of 170 valid surveys were returned for a response rate of 18.3%. The for-hire fleet was separated into charter and head boat fleets to analyze the economic contributions of each to the state's economy. The charter boat fleet contributed \$102,890,000 in sales and created 2,713 full or part-time jobs. The head boat fleet contributed \$63,556,000 in sales and created 598 full or part-time jobs. These economic contributions were from direct expenditures in the for-hire industry and did not include customer expenditures outside of trip costs and tips.



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1 Introduction

Recreational fishing is an important part of North Carolina's economy. In 2016, the total sales impact from recreational fishing was approximately \$454.8 million (Stemle and Condon 2016). One key part of the recreational fishing fleet is for-hire fishing, also known as charter fishing. Charter fishing is "fishing from a vessel carrying a passenger for hire who is engaged in recreational fishing" (16 USCS §1802(3)). There are few charter-specific socioeconomic surveys for North Carolina, with the most recent one completed in 2009. Since 2009, the charter fleet has grown with 1,033 active charter licenses in 2022, up from 794 active charter licenses in 2009 (Dumas et al. 2009). With such a significant increase in licenses, an updated economic assessment of the state's charter fleet was needed.

In 2022, North Carolina had 1,033 active charter licenses in the state, held by 929 individual license holders, with licenses falling under three categories: Non-Blanket For-Hire Vessel, Blanket For-Hire Vessel Coastal Recreational Fishing License (CRFL), and Blanket For-Hire Captain's CRFL. Non-Blanket For Hire Vessel licenses are a low-cost license for charter vessels not wishing to provide recreational license privileges to passengers. This license requires each individual passenger to obtain their own CRFL. Blanket For-Hire Vessel CRFLs are intended for charter boats and head boats wishing to provide recreational license privileges to passengers. Blanket For-Hire Captain's CRFLs licenses are for guides with multiple vessels wishing to provide recreational license privileges to passengers on all vessels they captain. A United States Coast Guard (USCG) license suitable for passenger rating is required to purchase this license.

This document reports the results of a socioeconomic survey of the state's for-hire fleet conducted by the NCDMF, which was distributed to all charter license-holders in the beginning of 2023. The study is designed to focus on direct on-vessel spending and does not include off-vessel passenger expenditures such as hotel, food, gas, and any other purchases not made on the vessel. Future studies could build on this survey by including a separate group of questions targeting passenger-specific data.

2 Study Objectives

The primary goal of this study was to understand the socioeconomic conditions of the for-hire fleet in the state. To do this, the study focused on fixed and variable costs necessary to operate a charter fishing business, as well as trip-related revenue streams. This information will help to characterize the size, scope, and operational profile of the charter fleet in North Carolina. It is important to emphasize that this analysis provides a baseline of regional and statewide economic value and, to fully measure the dollar value of the industry, passenger expenditures will need to be incorporated into the analysis. The full dollar value of the industry is expected to be much greater if passenger expenditures were incorporated.

Beyond the direct economic analysis, this study sought to gauge the perspectives and challenges faced by charter owners/operators more broadly. By using targeted questioning around business conditions and state regulations, we hoped to create a better understanding of current conditions in the charter fishing industry in the state, identify what issues are of immediate concern to the industry, and determine how NCDMF can develop and implement management strategies to more fully consider this group of stakeholders in the recreational fishing fleet.

3 Methodology

3.1 Study Design

This study utilized a multi-strategy design that integrated qualitative and quantitative methodologies. There are several benefits of multi-strategy designs, including but not limited to: triangulation, completeness, offsetting weaknesses, and providing stronger inferences, explaining findings, and illustrating data (Bryman 2006a; Robson, 2011). For this study, a sequential exploratory strategy was utilized with an initial phase of qualitative data collection and analysis followed by a phase of quantitative

data collection and analysis (Creswell 2003; Robson 2011). This approach is useful in exploring anthropological questions, in this case the economic value of the charter fishing industry, which NCDMF has had little direct experience surveying in the past.

3.2 Semi-Structured Interviews

Qualitative research consisted of 16 semi-structured interviews with part- and full-time charter captains in coastal North Carolina. Semi-structured interviews have been used in the past when working with the charter fishing industry to cover topics related to business practices and sea level rise (SLR) in Florida (Stoltz et al. 2021). Interview participants were recruited by phone or email from charter fishing websites or regional fishery organizations and asked to recommend other individuals who may be interested in participating. This "snowballing sampling" method is common in qualitative research, where the researcher identifies one or more individuals from the population of interest and these individuals are used to identify other members of the target population and so on (Robson, 2011). Interviews consisted of charter fishing topics related to business practices, environmental changes, and fisheries management. In semi-structured interviews, the interviewer has an initial list of topics that they want responses to, but will be guided to some extent by the interviewee's responses to the sequence of topics (Robson 2011). Interviews were recorded with permission for note-taking purposes and transcribed in Microsoft Word . Transcriptions were coded in NVivo utilizing a thematic coding analysis methodology. Thematic coding analysis has several phases that are central to many qualitative data analyses: familiarization with the data, generating initial codes, identifying themes, constructing thematic networks, and integration and interpretation (Robson, 2011). Overarching themes were identified in the data with secondary codes being located within those overarching nodes. These codes were utilized to develop additional questions on fisheries management issues that were integrated into the economic survey.

3.3 Survey Design

The goal of the survey instrument was to measure trip data and fixed/overhead costs associated with the charter fleet. Questions focused on trip-specific information such as species targeted, number of half day and full day trips taken in 2022, monthly fixed overhead costs, yearly fixed overhead costs, and variable costs such as fuel, bait, ice, food, and drinks. In addition, questions related to fisheries management and charter regulations identified as being an immediate concern to the industry during the semi-structured interviews were incorporated into the survey. The survey was internally reviewed prior to distribution to active license holders.

3.4 Implementation

The survey instrument was available in two different mediums to encourage participation: a paper hardcopy and online survey. Previous surveys conducted by NCDMF have offered both options with success. Hardcopies were sent directly to all license holders in the state and the survey was coded online into Qualtrics .

A mailing packet was distributed to 930 individual charter license holders in North Carolina in two mailing waves as follows:

- Wave I – February 20, 2023
- Wave II – March 13, 2023

The mailing packet included a paper copy of the survey, a pre-paid business reply envelope to mail the survey back to the NCDMF, a letter that explained the nature and goals of the study, a unique participant ID number to track participant responses, and a link/QR code to the online survey. A copy of the invite letter and survey instrument can be found in Appendices [A.1](#) & [A.2](#). In addition, recipients were notified that if they completed the survey, they may be randomly selected to win one of four \$50 gift cards. Accompanying the two mailing waves were several social media posts and the study was promoted at five for-hire outreach events across the state. Social media posts were posted on the NCDMF Instagram account on the following dates:

- Social Media Post I – March 3, 2023
- Social Media Post II – April 16, 2023

For-hire outreach events were also utilized to promote the survey with two outreach events taking place in Dare County, one outreach event in New Hanover County, one outreach event in Carteret County, and one outreach event in Brunswick County. The survey was open for approximately 2.5 months to allow ample time for the two mailing waves to reach charter license holders and to promote the survey in the for-hire outreach meetings that occurred in late-March / early-April 2023.

Data from completed online and paper surveys was stored in Microsoft Excel (©with all data analyzed using the Statistical Package for Social Sciences (SPSS release 29.0.0 [SPSS, 2022])). Final data verification, assigning labels to variables, and additional variable calculations were completed in SPSS along with all data analyses. The primary analyses in this report consist of frequency and simple univariate analyses.

3.5 IMPLAN

This study uses a regional input-output analysis framework. This framework allows for an estimate of the linkages between economic fleets of the economy at the state level. Economic contributions are measured by employment, labor income, and sales. Employment estimates the number of full-time and part-time employees in the for-hire industry. Labor income includes both wages and self-employed income earned in the fleet. Sales estimates include the annual dollar value of all sales by the for-hire fleet that spans across all industries in the state. The sales estimate includes both direct sales made by the business and sales between businesses and households resulting from original sales and is considered to be the total contribution of the industry across North Carolina. These individual contributions are not additive.

The IMPLAN software program was used to complete the input-output analysis. IMPLAN calculates the contributions of direct vessel expenditures through multipliers that estimate expenditure flows from the charter industry through the state's economy. IMPLAN is a widely used software program used by business professionals, researchers, and local governments to estimate economic multiplier effects. Multiplier effects measure the secondary effects of direct impact expenditures on the regional and statewide economy (Dumas et al. 2009).

4 Results

4.1 Interviews

From the 16 interviews completed with charter owner/operators, the participants were selected from three geographic regions of North Carolina: northern, central, and southern (see Figure 1). The northern region encompasses the coastal counties of Currituck, Dare, Tyrrell, Pasquotank, Perquimans, Camden, Chowan, Washington, and Hyde. The central region encompasses the coastal counties of Beaufort, Pamlico, Craven, and Carteret. The southern region encompasses the coastal counties of Onslow, Pender, New Hanover, and Brunswick. There were four interviews conducted in the northern region, six interviews conducted in the central region, and six interviews conducted in the southern region. Most interviewees were full-time captains with charter fishing as their main and/or only source of income. Looking at the respondents based on where they predominantly fish, thirteen respondents mainly fished the inshore/nearshore fisheries, and three respondents mainly fished the offshore fisheries.

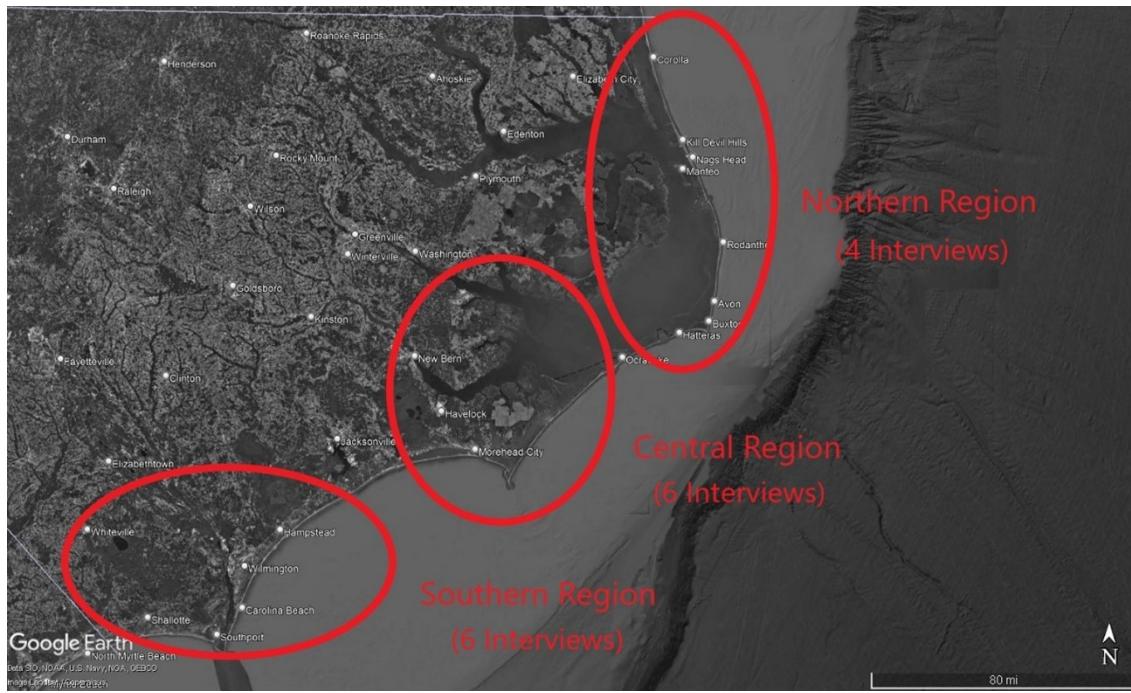


Figure 1: Map of Interview Participants

Interviews revealed that captains along the North Carolina coastline share similar concerns regarding several aspects of fisheries management in the state. Respondents shared concerns regarding the state of the charter industry in North Carolina, recent and future changes to recreational seasons/bag limits, and how fisheries regulations affect their business. The following two paragraphs share some of their perspectives on the charter industry and recreational fishery regulations in North Carolina.

When asked “What changes, if any, they would like to see to the charter industry in North Carolina?”, many respondents (10/16) mentioned some form of barrier to entry for the charter industry. Respondents provided a wide array of solutions, including limited entry, proof of percentage of income, commercial fishing license requirements, mandatory liability insurance, and high charter license fees. The justification for the need for additional barriers to entry was attributed to several factors including illegal charter operations and lack of proper safety on some charter boats. As one interviewee explained,

“I would like to see the industry standard for insurance and bad practice. So, if you have a boating accident.... I see a lot of these nearshore/inshore guys doing it by the seat of their pants. They don’t really have the right insurance coverage; they don’t really have the right safety gear. Some of the inshore guys have had some major accidents. And I don’t ever see any penalties come of that stuff. I would like to see them be scrutinized more than the general public” (Interviewee #2).

Respondents identified the need for some kind of greater regulation for the charter industry, especially when it comes to safety with one respondent noting that,

“There is really no regulations on charter boats [in NC], you get your charter captains license and then you just try to get bookings. I mean I’ve seen some charter boats... I don’t think they are safe to charter in. I’ve seen some people have 16-18’ Carolina Skiffs with 6 people on them plus the captain. To me it is just an accident waiting to happen” (Interviewee #10).

Another concern was the number of part-time charter captains in the industry with several full-time charter captains experiencing increased competition from individuals who may not be relying on charter fishing as their main source of income. One respondent explained their perspective on the issue:

“You’ve got the lawyer in Raleigh that has got a boat and he hires a captain and has all their

permits. He runs a few charters a year and takes clients...fishes the tournaments...and writes every bit off. He doesn't care about making money. I'm trying to do it for a living." (Interviewee #1).

This was further emphasized by another respondent who mentioned that some part-time charter captains may not be properly permitted or insured. He noted that,

"It just seems like there is more and more people that will probably never have the intentions of being a full-time charter guy...to have a full-time career...that run intermittent trips here and there. And they aren't properly permitted, a lot of them don't have insurance. I feel like that is a huge flaw in the way our system is set up" (Interviewee #5).

When asked "Which regulation would you most like to see changed and how would you change it?", most respondents referenced a change in the bag limit or season for a variety of species they target. Since many respondents were involved in the inshore/nearshore fishery, a number of the bag limits or season changes mentioned were for inshore/nearshore species like Red drum (3/16) (*Sciaenops ocellatus*), Spotted seatrout (3/16) (*Cynoscion nebulosus*), and the flounder fishery (6/16) which encompasses Summer flounder (*Paralichthys dentatus*), Gulf flounder (*P. albiguttata*), and Southern flounder (*P. lethostigma*). Several respondents identified the flounder fishery as a key fishery where they would like to see changes to either the recreational season or the quota allocation between commercial and recreational fleet where, as one respondent explained,

"it's been shown over and over again that it [flounder fishery] is worth so much more money recreationally and charter than commercial" (Interviewee #9).

Another respondent emphasized that,

"closing flounder was really tough on us...our intercoastal customers had become very fond of eating flounder and catching them during the summertime and fall when they are here" (Interviewee #3).

4.2 Survey

4.2.1 License Holder Characteristics

The survey sample size consisted of 192 survey respondents with a response rate of approximately 21%. After eliminating incomplete survey responses and expired license holders, the response rate decreased to 18% with 170 valid surveys. Respondent licenses were distributed into the three for-hire license categories as follows: 65% held Blanket For-Hire Vessel CRFLs, 19% held Blanket For-Hire Captain's CRFLs, and 16% held Non-Blanket For-Hire Vessel licenses (Table 1). This mirrors the distribution of licenses among all for-hire license holders in 2022 relatively well (Table 2) and thus, the survey captured a representative sample of the for-hire fleet in the state. The average number of years working in the for-hire industry was 13. About 40% of respondents were new to the industry with under five years of experience (Table 3). For this survey, working in the for-hire industry was defined as actively operating for business purposes, either full-time or part-time. Only 14% of respondents listed for-hire charter fishing as their main source of income while 87% of respondents listed an alternative source of income (Table 4). The most common alternative sources of income were retirement or Social Security, followed by commercial fishing, and firefighting. Several respondents were members of various organizations such as a local, state, or regional charter boat association (20%), a national association for charter boat captains (8%), a recreational fishing conservation / lobbying organization (19%), a non-fishing environmental / conservation group (10%), or a chamber of commerce (6%).

4.2.2 Vessel Operations

Survey respondents were also separated into three operator statuses: Owner-Captain, Owner-Not Captain, and Captain-Not Owner. Approximately 89% of respondents were categorized as Owner-Captain, 5% as Owner-Not Captain, and 6% as Captain-Not Owner. For-hire vessels fell under three categories: guide boat, charter boat, or head boat. For the purpose of this survey a guide boat was

defined as “a for-hire fishing boat that carries four passengers or less and mostly fishes nearshore, inshore, bays, and inlets.” A charter boat was defined as “uninspected for-hire fishing vessel that carries six persons or fewer and mostly fishes offshore and inshore waters.” A head boat was defined as “a vessel that has a USCG Certificate of Inspection (COI) that generally carries more than six passengers and charges a fee per passenger, for a specified navigation route.” A total of 220 for-hire vessels were listed between all survey respondents with vessels falling under the three designated vessel categories as follows: 36% were categorized as guide boats, 59% were categorized as charter boats, and 5% were categorized as head boats. The average vessel size was 30 ft in length, with a 505-horsepower engine and a carrying capacity of 15 passengers. The average year of construction was 2002 and the primary hull material was fiberglass (83.2%), followed by wood (13.2%) and aluminum (3.6%) (Table 5).

4.2.3 Fishing and Non-fishing Trips

For-hire trips were broken into three trip categories: Inshore/Nearshore, Offshore, and Split 50/50 (between “Inshore/Nearshore” and “Offshore”). In this survey, “Inshore/Nearshore” was defined as fishing in estuarine waters and in ocean less than 3 miles, while “Offshore” was defined as fishing in ocean waters greater than 3 miles. Approximately 57% of respondents said they focused primarily on inshore/nearshore trips, 31% of respondents focused primarily on offshore trips, and 12% of respondents said they split their trips evenly between inshore/nearshore and offshore (Table 6). The top five species targeted on for-hire trips were: Spanish Mackerel (63.52%), Bluefish (50%), Red Drum (48.82%), Spotted Seatrout (45.30%), and King Mackerel (45.30%) (Table 7). Other species that were commonly listed included: Black Sea Bass, Dolphinfish, Flounder, and Cobia. Respondents were asked to select the coastal county that was their main departure point for their for-hire operations as well. The primary departure point listed was Carteret County (29.90%), followed by Dare County (24.60%), and Brunswick County (14.40%). Other counties listed were New Hanover, Pender, Pamlico, Onslow, Beaufort, Craven, Horry County, SC, and Hyde in that order from largest to smallest percentage of use (Table 8).

Most survey respondents offered both full-day fishing trips (77%) and half-day fishing trips (62%) in 2022. Charter boat captains, on average, offered 28 full-day trips and 33 half-day trips in 2022. The average rate for a full-day trip was \$1,229 and \$545 for a half-day trip. Head boat captains, on average, provided 127 full-day trips and 124 half-day trips in 2022. The average rate charged per person on a head boat trip was \$133.75 for a full-day trip and \$67.50 for a half-day trip (Table 9).

Approximately half of for-hire businesses (51%) offered non-fishing trips in 2022. For this survey, a non-fishing trip included activities such as duck hunting, sightseeing, eco-tours, dolphin watching, and water taxi. Charter boat captains provided, on average, 12 non-fishing trips with an average full-day rate of \$836 and an average half-day rate of \$377. Head boat captains, on average, provided 93 non-fishing trips with an average half-day rate of \$25 per person (Table 9).

4.3 Cost and Earnings

In 2022, the average gross revenue was \$60,372.01 for a charter boat operator. The largest expenditures for an average charter business were fuel and oil (\$13,6334), followed by overhead (\$11,585), loan payments (\$11,125), vessel repair and maintenance (\$7,481), expenses for a captain (\$4,587.53), insurance (\$3,891), and tackle and supply expenses (\$3,785). Other expenses included crew payments (\$2,250), electronics (\$1,994), bait (\$1,907), ice (\$886), and food and drink (\$846) (Table 10).

For head boat operations, the average gross revenue was \$1,571,050 for a head boat operator. The largest expenditures for an average head boat operation were fuel and oil (\$148,306), followed by pay to captain (\$83,938), pay to mate and crew (\$57,990), overhead (\$50,076), and repair and maintenance (\$45,146). Other expenses include bait (\$31,303), loan payments (\$22,990), insurance (\$20,696), ice (\$19,522), tackle and supplies (\$17,993), and electronics (\$5,610) (Table 11). The average head boat owner’s net cash flow was \$1,067,481 in 2022.

4.4 Fisheries-Related Questions

Survey respondents were asked several questions focusing on fisheries management-related topics within the state. Most respondents were not actively involved in fisheries management with only 14% having some form of participation in the management process at the state, interstate, or federal level (Table 13). Of the survey participants who were actively involved in fisheries management, their involvement primarily consisted of attending meetings or making public comments (15.9%), followed by participation in state level fisheries management (5.9%) and participation in federal-level fisheries management (5.3%). The level of participation was not defined and was left to the participant's interpretation. A list of factors was presented and respondents were asked to rate the level of importance each factor had to the for-hire fishing industry and to them personally on a scale of 1 to 5, with 1 meaning "it's not important or doesn't affect me" and 5 meaning "it's extremely important or it affects me a great deal" (Table 14). The most important factors for survey respondents were "bag limits and size limits" (4.74), followed by "keeping up with rules and regulations" (4.73) and "water quality and pollution" (4.54). Factors that leaned towards important included "overfishing" (3.87), "competition from other recreational fishermen and crowding" (3.64), and "infrastructure and waterfront access" (3.58). Factors of lesser importance were "competition from commercial fishermen" (3.24) and "climate change" (2.62). The emphasis on the importance of "bag limits and size limits" was reflected in the open-ended portion of the survey, as well as in places where respondents were asked to "describe any changes you would like to see in North Carolina's fisheries" (Appendix A.3). There were several references to changes in bag or size limits for species including: Dolphinfish (Mahi-mahi) (*Coryphaena hippurus*), Flounder, Gray Trout (Weakfish) (*Cynoscion regalis*), Red Drum (*Lutjanus campechanus*), Red Snapper, Spotted seatrout, and Striped Bass (*Morone saxatilis*).

Survey questions related to the current state of the for-hire industry were also included. Respondents were asked to rate their level of support for a list of potential changes on a scale of 1 to 5, with 1 meaning "strongly oppose" and 5 meaning "strongly support" (Table 15). Respondents supported "mandatory liability insurance" (3.94) for the for-hire industry while opposing "higher charter license fees" (2.05). Respondents were indifferent regarding "mandatory recreational reporting" (3.00)¹, "for-hire specific allocations and regulations" (2.90), "stricter safety gear requirements on vessels" (2.89), and "limited entry or permit cap programs" (2.89).

Most respondents indicated that the size of the for-hire fleet in North Carolina was "about right" (53.60%) while over a third of respondents viewed the for-hire fleet as "somewhat large" (32.50%) or "much too large" (10.20%). Only a small portion of respondents (3.60%) viewed the for-hire fleet as either "somewhat small" or "much too small" (Table 16).

5 Economic Contribution

An economic contribution is defined as the "gross changes in a region's existing economy that can be attributed to a given industry" (Watson et al. 2007). The economic contributions of the charter and head boat fleet are summarized in Table 17. The table represents a contribution analysis, which is a descriptive analysis that tracks the gross economic activity of the for-hire fishing industry as the dollars cycle through North Carolina's economy (Watson et al. 2007). In 2022, charter and head boat activities contributed an estimated \$166,446,000 in total sales and supported 3,311 jobs (full or part-time). When the for-hire industry is broken into charter and head boat respectively, the sales contributed were \$102,890,000 and \$63,556,000. The charter fleet created 2,714 full or part-time jobs while the head boat fleet created 598 full or part-time jobs.

6 Discussion

6.1 Economic Status of the For-Hire Industry

The financial conditions of for-hire fishing businesses in North Carolina were mixed with most captains supplementing their business with alternative sources of income. The negative average net cash flow for

¹S.L. 2023-137, Section 6, for Mandatory Harvesting Reporting, was enacted after the survey had concluded

charter captains in this study could be attributed to a number of factors including but not limited to 40% of respondents having five or less years of for-hire fishing experience and a respondent's percentage of annual income attributed to for-hire fishing. This is lower compared to the population's proportion of participants with less than five years of experience, which is around 50%. This suggests that the responses may be more representative of experienced participants in the charter fleet. When comparing the two variables "numbers of years in the for-hire fishing industry" to "total for-hire annual income", there is a moderate positive correlation (0.312) between the two variables (Table 18).

When comparing the two variables "percentage of annual income derived from for-hire fishing" to "total for-hire annual income", there is a moderately positive correlation (0.422) between the two variables. Approximately 18% of variation or change in total for-hire annual income can be attributed to a respondent's percentage of income derived from for-hire fishing. Most respondents (53%) listed their percentage of income derived from for-hire fishing as being in the 0-25% range, which may imply that most survey participants primarily run part-time for-hire businesses. On the opposite end of the income scale, roughly 25% of respondents listed their percentage of income derived from for-hire fishing as being in the 76-100% range. There is a bimodal spread in the data for percentage of income derived from for-hire fishing with respondents concentrated on the lower or upper end of the spectrum. When looking at total annual income associated with the 0-25% income category and the 76-100% income category, the mean annual income is \$35,771 and \$112,901 respectively. These two income categories represent approximately 79% of survey respondents (Table 19). It is evident there is a wide range in income between charter captains in this sample and it can be assumed the same trend exists in respondents' fixed and variable costs. A case can be made for using the median net cash flow to represent the average charter vessel in this instance because there is evidence of some skewness to the left in the data due to the concentration of a significant portion of part-time charter captains in the survey sample. When using the median, there is a positive net cash flow for the average charter vessel of \$1,632 (Table 10).

The estimated low level of earnings for an average charter vessel has been noted in previous studies conducted by the Northeast Fisheries Science Center (Steinback and Brinson 2013). The authors noted there was "considerable variation in the financial characteristics of for-hire operations, even after accounting for differences between charter boats and head boats". It is further noted that "charter boat owners, on average, earned only about 17% of their total 2010 income from their charter boat business". This aligns with the current survey where 53% of respondents attributed 0-25% of their income from for-hire fishing. Similarly, Steinback and Brinson's 2013 study had only 5% of charter boat owners that earned 100% of their annual income from charter activities. Steinback and Brinson (2013) found "many owners indicated that they operated the business mainly for lifestyle benefits; that is, charter employment has more to do with lifestyle choices than financial considerations". This desire for lifestyle benefits was mentioned in the interview stage of the current study by several charter captains who voiced their displeasure with part-time captains moving into the industry with one individual explaining that,

"part-time charterers...you get a fireman that works one week and he's off a week and the week he is off he comes to the beach and runs a few charters. He's not making a living running charters...he's supplementing his fun is what he's doing" (Interviewee # 1).

The survey sample is reflecting, to some extent, a growing contingent of newer charter captains who have come into the industry in past several years since the COVID-19 pandemic. A number of interviewees noticed this trend as well with one captain noting that,

"it was definitely an increase in the amount of [charter] operations I saw on the water right after COVID. I would say kind of during [COVID] cause it was a two-year deal but the last year, towards the end of COVID to now, definitely more charter boats came out of that situation" (Interviewee #9).

This is reflected in NCDMF license data with 1,033 charter licenses issued in 2022, which was an increase from 834 licenses issued in 2020, an approximate 24% increase in for-hire licenses in two years. This is comparatively larger than the increase in licenses between 2018-2020, which was only a 5% increase in licenses issued over the same two-year time series. The survey sample also leans towards

charter captains that focus on inshore/nearshore waters with 57% of respondents indicating that was the area they primarily fished. One interview participant pointed out that,

"[the] inshore charter fleet has grown exponentially from what it used to be" (Interviewee #4)

while another emphasized that,

"[there were] a lot more guides and charter operations especially in the inshore/nearshore fleet" (Interviewee #9).

The largest reported cost for a charter operation among respondents was fuel (Table 10 & 11). The summer of 2022 saw the highest gas prices on record, which is when a majority of charter business takes place. That spike in prices could be influencing the cash flow. Though the mechanism is unclear, survey respondents seem to be running their businesses close to a break-even margin. This observation is consistent with other research in the for-hire industry.

6.2 For-Hire Fishing Regulations

As expected, survey respondents opposed higher charter license fees, which has been reflected in previous for-hire surveys. Specifically, in the 2009 survey of for-hire fishing fleets in the South Atlantic states, captains in North and South Carolina listed permit/license cost increases as a short-term concern for them (Holland et al. 2012). Fishing permit/license costs were also listed as a minor problem for recreational for-hire captains in the Gulf of Mexico (Savolainen et al. 2012). Regarding opinions on the size of the for-hire fleet in North Carolina, survey data diverges from previous studies. In the current survey, about 53% of respondents thought the size of the for-hire fleet was "about right" which is a noticeable change from the 33% of respondents in 2009 who shared the same opinion (Dumas et al. 2009). Fewer survey respondents in 2022 expressed the for-hire fleet is "somewhat large" or "much too large" with approximately 43% compared to 61% of respondents in 2009. This change in perspective may be attributed, to some extent, to the number of part-time for-hire captains in the sample who do not attribute the majority or all of their income to for-hire fishing. From a business perspective, it is logical that individuals who identify for-hire fishing as their main source of income would be less supportive of new captains entering the industry. In the previous survey from North Carolina, 62% of survey respondents were in favor of limited vessel entry or a permit cap program for the for-hire fishery (Dumas et al. 2009). This trend was not reflected in the current survey with respondents leaning towards "indifferent" regarding this proposed regulation scenario (Table 15).

7 Next Steps

One area of the 2022 for-hire socioeconomic survey where there is an identifiable data gap is off-vessel passenger expenditures. For example, dockside interviews of for-hire passengers were conducted by Dumas et al. (2009) at the end of for-hire fishing trips. These interviews measured the off-vessel expenditures of passengers beyond fishing fees, trips, and any onboard purchases (Dumas et al. 2009). For 2009, these direct off-vessel expenditures by for-hire passengers totaled \$305.4 million per year (Dumas et al. 2009). Pending additional funding and resources, future socioeconomic surveys of the for-hire fishing industry should incorporate direct off-vessel expenditures. A passenger-specific survey protocol will need to be developed to focus on off-vessel expenditures such as travel, lodging, restaurant meals, and groceries. Future surveyors should spend considerable time on dockside interviews during the peak summer months followed by the distribution of surveys to for-hire captains during their slower season in the winter months.

In addition, future for-hire surveys should incorporate questions focused on financial information like market value of vessels and more detailed full and half-day cost information. Previous for-hire surveys in the Gulf of Mexico, Northeast U.S., and North Carolina asked respondents to estimate the current market value of their vessel (Savolainen et al. 2012, Steinback and Brinson 2013, and Dumas et al. 2009). In the 2009 economic assessment of the for-hire fleet in North Carolina, Dumas et al. separated full and half-day trip expenditures by month to provide a cross-section of the industry.

While more detailed trip-specific information is necessary, the desire to make the current survey available in three different mediums (paper, online, and mobile) limited the length of the survey instrument to a predetermined number of questions to make it compatible with the online and mobile requirements.

In future surveys we suggest a targeted effort to include charter participants with under five years of holding a for-hire license, which were under represented in the survey. This data gap could be caused by the number of participants not willing to participate in the surveys due to their limited use of their license, but that is speculation and more effort is needed to understand this changing industry and its participants.

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9 Tables

Table 1: License information of for-hire respondents

2022 For-Hire License Categories			
	Observations	Percent	Valid Percent
Blanket For-Hire Vessel CRFLs	110	64.70%	64.70%
Blanket For-Hire Captain's CRFLs	33	19.40%	19.40%
Non-Blanket For-Hire Vessel CRFLs	27	15.90%	15.90%
Total	170	100.00%	100.00%

(a) Some respondents had multiple licenses but were only assigned one for the purpose of this analysis.

Table 2: License information of total for-hire fleet in 2022

2022 For-Hire License Categories (Total Fleet)			
	Observations	Percent	Valid Percent
Blanket For-Hire Vessel CRFLs	755	73.10	73.10
Blanket For-Hire Captain's CRFLs	159	15.40	15.40
Non-Blanket For-Hire Vessel CRFLs	119	11.50	11.50
Total	1033	100.00	100.00

(a) This includes individuals with multiple licenses. There were 930 individual license holders in the for-hire fleet.

Table 3: Years in industry

Years in Industry		
	Observations	Percent
1-5	66	39%
5-20	62	37%
>20	39	23%
Missing	3	

Table 4: For-hire respondents with an alternative source of income

For-Hire Fishing as Main or Alternative Source of Income			
	Observations	Percent	Valid Percent
Main Source of Income	24	14.10%	14.40%
Alternate Source of Income	143	84.10%	85.60%
Sample	167	98.20%	100.00%
Missing	3	1.80%	
Total	170	100.00%	

Table 5: For-hire respondent vessel information

Vessel Information	
	Mean
Vessel Length (ft)	29.55
Horsepower	505.43
Vessel Carry Capacity	14.83
Year Built	2002
Hull Material	
Aluminum	3.60%
Fiberglass	83.20%
Wood	13.20%

Table 6: Respondent trips by proximity to shoreline

Types of For-Hire Trips			
	Observations	Percent	Valid Percent
Inshore / Nearshore	95	55.90%	56.90%
Offshore (>3mi)	52	30.60%	31.10%
Split 50 / 50	20	11.80%	12.00%
Sample	167	98.20%	100.00%
Missing	3	1.80%	
Total	170	100.00%	

Table 7: Species normally targeted on respondents' primary vessel

Species Targeted		
Species	Observations	Percentage
Spanish Mackerel	108	63.52%
Bluefish	85	50.00%
Red Drum	83	48.82%
Spotted Seatrout	77	45.30%
King Mackerel	77	45.30%
Black Sea Bass	73	42.94%
Dolphinfish (Mahi-mahi)	72	42.35%
Flounder	71	41.80%
Cobia	65	38.24%
Tunas	56	32.94%
Wahoo	56	32.94%
False Albacore	54	31.80%
Black Drum	54	31.80%
Grouper	49	28.82%
Triggerfish	49	28.82%
Sheepshead	48	28.23%
Greater Amberjack	42	24.71%
Sharks	37	21.76%
Billfish	36	21.20%
Snapper	35	20.60%
Striped Bass	30	17.60%
Ribbonfish	15	8.82%
Other Species Listed:		
Tilefish	3	1.80%
Shrimp	3	1.80%
Pigfish	3	1.80%
Tarpon	3	1.80%
Tripletail	2	1.20%
Gray Trout (Weakfish)	2	1.20%
Croakers	1	0.59%
Spots	1	0.59%
Puffers	1	0.59%
Swordfish	1	0.59%
Porgies	1	0.59%
Blue Crab	1	0.59%
Crevalle Jack	1	0.59%

Table 8: For-hire primary departure point by county

Primary Departure Point			
County	Observations	Percent	Valid Percent
Carteret	50	29.40%	29.90%
Dare	41	24.10%	24.60%
Brunswick	24	14.10%	14.40%
New Hanover	19	11.20%	11.40%
Pender	8	4.70%	4.80%
Pamlico	7	4.10%	4.20%
Onslow	6	3.50%	3.60%
Beaufort	4	2.40%	2.40%
Craven	3	1.80%	1.80%
Horry County, SC	3	1.80%	1.80%
Hyde	**	**	**
Missing	3	1.80%	
Total	170	100.00%	100.00%

Table 9: Average trip and rate information for a for-hire operation

For-Hire Trip and Rate Information		
	Charter Boats	Head Boats
Average # of Trips		
Full-Day Fishing Trip	28	127
Half-Day Fishing Trip	33	124
Nonfishing Trip	12	93
Fees		
Full-Day Fishing Trip	\$1,228.57	\$133.75 per person
Half-Day Fishing Trip	\$544.74	\$67.50 per person
Full-Day Nonfishing Trip	\$835.94	
Half-Day Nonfishing Trip	\$376.52	\$25.00 per person

Table 10: Annual cash flow of an average charter vessel.

Annual Cash Flow (Charter)					
	Mean	Standard Deviation	Lower CI (95%)	Upper CI (95%)	Median
Inflow (Gross Revenue)	\$60,372.01	\$73,644.87	\$49,086.18	\$71,657.84	\$27,292.80
Outflow (Expenditures)					
Fuel and Oil	\$13,633.77	\$23,537.19	\$9,935.19	\$17,332.35	\$3,750.00
Bait	\$1,906.64	\$2,853.98	\$1,463.82	\$2,349.45	\$700.00
Ice	\$886.02	\$1,708.38	\$620.95	\$1,151.08	\$350.00
Food & Drink	\$846.08	\$1,404.51	\$628.17	\$1,064.00	\$332.50
Tackle & Supplies	\$3,784.76	\$5,867.08	\$2,867.51	\$4,702.01	\$2,000.00
Repair & Maintenance	\$7,481.39	\$15,344.21	\$5,129.95	\$9,832.84	\$2,500.00
Insurance	\$3,890.94	\$4,085.57	\$3,251.00	\$4,530.89	\$2,400.00
Overhead	\$11,584.96	\$31,836.10	\$6,446.70	\$16,723.23	\$5,548.40
Hired Captain	\$4,587.53	\$16,232.12	\$2,069.03	\$7,106.04	\$0.00
Crew/Mate	\$2,250.37	\$5,742.60	\$1,359.37	\$3,141.36	\$0.00
Electronics	\$1,993.57	\$3,349.23	\$1,440.28	\$2,546.86	\$1,000.00
Loan Payments	\$11,125.02	\$13,554.14	\$7939.95	\$14,310.09	\$7,080.00
Net Cash Flow	-\$3,599.04		\$5,934.27	-\$13,132.35	\$1,631.91

Table 11: Annual cash flow of an average head boat vessel

Annual Cash Flow (Head boat)					
	Mean	Standard Deviation	Lower CI (95%)	Upper CI (95%)	Median
Inflow (Gross Revenue)	\$1,571,050.00	\$890,595.14	\$171,917.91	\$2,970,182.09	\$1,508,500.00
Outflow (Expenditures)					
Fuel and Oil	\$148,306.38	\$70,535.23	\$36,069.08	\$260,543.67	\$144,500.00
Bait	\$31,302.50	\$32,445.68	-\$20,325.82	\$82,930.82	\$18,847.50
Ice	\$19,521.75	\$20,320.24	-\$12,812.28	\$51,855.78	\$15,337.50
Food & Drink	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Tackle & Supplies	\$17,993.17	\$13,325.29	-\$3,210.33	\$39,196.67	\$15,486.34
Repair & Maintenance	\$45,146.06	\$6,172.37	\$35,324.45	\$54,967.68	\$47,542.13
Insurance	\$20,695.95	\$8,816.46	\$6,666.99	\$34,724.91	\$19,500.00
Overhead	\$50,075.57	\$22,897.25	\$13,640.93	\$86,510.21	\$49,244.57
Hired Captain	\$83,937.50	\$4,861.36	\$40,259.92	\$127,615.08	\$83,937.50
Crew/Mate	\$57,990.00	\$55,325.75	-\$30,045.62	\$146,025.62	\$37,300.00
Electronics	\$5,609.68	\$3,887.94	-\$576.90	\$11,796.27	\$5,138.50
Loan Payments	\$22,990.02	\$21,199.03	-\$167,475.73	\$213,455.77	\$22,990.02
Net Cash Flow	\$1,067,481.42		\$274,403.24	\$1,860,559.60	\$1,048,675.95

Table 12: Annual cash flow of an average charter vessel that receives 76% to 100% of their income from the charter industry.

Annual Cash Flow		
	Mean	Median
Inflow (Gross Revenue)	\$114,804.00	\$56365
Outflow (Expenditures)		
Fuel and Oil	\$23,506	\$9,440
Bait	\$3,303	\$ 1,630
Ice	\$ 1,950	\$ 819
Food & Drink	\$ 1,834	\$ 695
Tackle & Supplies	\$ 6,350	\$ 5,000
Repair & Maintenance	\$ 8,237	\$ 3,000
Insurance	\$ 5,520	\$ 3,600
Overhead	\$ 15,255	\$ 8,460
Hired Captain	\$ 14,106	\$ 65
Crew/Mate	\$ 4,903	\$ 65
Electronics	\$2259	\$1500
Loan Payments	\$ 5,028	\$ 4,620
Net Cash Flow	\$12,471	\$12,646

Table 13: Respondent involvement in fisheries management

Level of Involvement in Fisheries Management			
	Observations	Percent	Valid Percent
Involved in FM			
Not Involved	146	85.9%	86.4%
Involved	23	13.5%	13.6%
Sample	169	99.4%	100%
Missing	1	0.6%	
Total	170	100%	
Level of Involvement			
State	10	5.9%	
Interstate	3	1.8%	
Federal	9	5.3%	
Attend Meetings or Make Public Comment	27	15.9%	

Table 14: Using a scale of 1 to 5, how important do you consider each of these issues to the for-hire fishing industry, and to you personally? (1) meaning "it's not important or doesn't affect me" and (5) meaning "it's extremely important or it affects me a great deal".

Factors Important to For-Hire Captains				
	Observations	Minimum	Maximum	Mean (SD)
Bag limits/size limits	169	1	5	4.74 (.70)
Keeping up with rules and regulations	168	1	5	4.73 (.72)
Water quality/pollution	169	1	5	4.54 (.99)
Overfishing	169	1	5	3.87 (1.39)
Competition from other recreational fishermen/crowding	169	1	5	3.64 (1.31)
Infrastructure/waterfront access	169	1	5	3.58 (1.49)
Competition from commercial fishermen	169	1	5	3.24 (1.58)
Climate change	168	1	5	2.62 (1.49)

Table 15: Using a scale of 1 to 5, what is your level of support for the following changes to the NC for-hire industry? (1) meaning "strongly oppose" and (5) meaning "strongly support".

Changes to the For-Hire Industry				
	Observations	Minimum	Maximum	Mean (SD)
Mandatory liability insurance	167	1	5	3.94 (1.12)
Mandatory recreational reporting	166	1	5	3.00 (1.40)
For-hire specific allocations/regulations	165	1	5	2.90 (1.28)
Limited Entry/Permit Cap Program	162	1	5	2.89 (1.27)
Stricter safety gear requirements on vessels	166	1	5	2.89 (1.16)
Higher charter license fees	166	1	5	2.05 (1.11)

Table 16: "To maintain a financially healthy for-hire industry in NC, do you believe the number of vessels in the NC for-hire fleet is: much too small, somewhat small, about right, somewhat large, or much too large?" Categories with less than 3 observations are represented by an asterisk.

Opinion on Size of For-Hire Fleet			
	Observations	Percent	Valid Percent
Size			
Much too small	*	0.60%	0.60%
Somewhat small	5	2.90%	3.00%
About right	89	52.40%	53.60%
Somewhat large	54	31.80%	32.50%
Much too large	17	10.00%	10.20%
Sample	166	97.60%	100.00%
Missing	4	2.40%	
Total	170	100.00%	

Table 17: Economic contributions of for-hire fleet expenditure broken down by charter and head boat in 2023.

Economic Contribution			
	Sales (\$1,000)	Income (\$1,000)	Jobs (full and part time)
Charter	102,890	37,561	2,713
Head boat	63,556	23,152	598
Total	166,446	60,713	3,311

Table 18: Pearson correlation of "numbers of years in industry" and "percentage of income from FH fishing" to average charter total annual income

Variables Influencing Average Charter Total Annual Income		
	Number of Years in Industry	Total Annual Income
Pearson Correlation	1	0.312
Sig. (2-tailed)		<.001
N	167	163

	Percentage of Income from FH Fishing	Total Annual Income
Pearson Correlation	1	0.422
Sig. (2-tailed)		<.001
N	169	165

Table 19: Average charter annual income by highest and lowest percentage of income categories

Bimodal percentage of Income from For-Hire Fishing			
	Observations	Mean Annual Income	Median Annual Income
Percentage of Income			
0-25%	91	\$35,770.91	\$10,240.00
76-100%	43	\$112,900.90	\$99,000.00
Total	134		

Table 20: Income from for-hire fishing as a percentage of total income

Percentage of Income from For-Hire Fishing			
	Observations	Percent	Valid Percent
0-25%	90	52.90%	53.30%
26-50%	21	12.40%	12.40%
51-75%	15	8.80%	8.90%
76-100%	43	25.30%	25.40%
Sample	169	99.40%	100.00%
Missing	1	0.6%	
Total	170	100.00%	

Table 21: Operator status of for-hire licensee respondent

Respondent Operator Status			
	Observations	Percent	Valid Percent
Owner and Captain	151	88.80%	88.80%
Owner, not Captain	8	4.70%	4.70%
Captain, not Owner	11	6.50%	6.50%
Total	170	100.00%	100.00%

Table 22: Percentage of income broken down by primary departure point

County	Percentage of Income by County			
	0-25%	26-50%	51-75%	76-100%
Carteret (n=50)	76.00%	6.00%	2.00%	16.00%
Dare (n=40)	27.50%	22.50%	17.50%	32.50%
Brunswick (n=24)	54.20%	12.50%	16.70%	16.70%
New Hanover (n=19)	52.60%	10.50%	5.30%	31.60%
Pender (n=8)	50.00%	12.50%	0.00%	37.50%
Pamlico (n=7)	42.90%	14.30%	0.00%	42.90%
Onslow (n=6)	33.30%	16.70%	0.00%	50.00%
Beaufort (n=4)	75.00%	0.00%	0.00%	25.00%
Craven (n=3)	66.70%	0.00%	0.00%	33.30%
Horry County, SC (n=3)	100.00%	0.00%	0.00%	0.00%
Hyde (n=**)	0.00%	0.00%	100.00%	0.00%

A Appendices

A.1 Invite Letter



ROY COOPER

Governor

ELIZABETH S. BISER

Secretary

KATHY B. RAWLS

Director

«FirstName» «LastName»

«MailAddress1», «MailCity», «MailState» «MailZip»

Dear Charter Owner/Captain,

The for-hire charter industry is growing in North Carolina and plays a key role in our state's coastal economies. The most recent data available on the value of the for-hire fleet is over ten years old and the industry has grown significantly since then, especially the inshore fleet. To assess the value of the industry more accurately, NC DMF is sending for-hire license holders an economic survey to help create a more up-to-date assessment of the regional and statewide economic contributions of the for-hire industry. This survey will take approximately 30 minutes to complete. This survey is intended for **you alone**. If you complete this survey, you will be entered into a drawing to win a \$50 gift card.

Your name was chosen from the confidential records of the NC DMF charter license holders in 2022. I understand that information about your business is sensitive. **This survey is strictly confidential, and your information is protected by NC General Statute 113-170.3(c).** Your answers will be combined with the answers of everyone who participates. At no time will your name ever be linked to any of your individual answers in our reporting.

Enclosed is a hard copy of the survey for you to fill out. Should you decide to take the survey by mail, a self-addressed stamped envelope has been included for your convenience. You also have the option of taking the survey online or via a mobile friendly version. Your cooperation and input are greatly appreciated. **You have until April 21, 2023 to complete this survey.**

The URL and QR code listed below will link you to the for-hire survey:

https://qfreeaccountsjc1.az1.qualtrics.com/jfe/form/SV_eR8V34ZCG0yFmDk



Your personal ID number is: «ParticipantID»

Sincerely,

Jason Walsh
Fisheries Economics Program Manager
NC Division of Marine Fisheries

A.2 Survey

2023 North Carolina For-Hire Socioeconomic Survey

Welcome. The for-hire fishing industry is important to North Carolina's economy, with the industry contributing up to \$668 million annually according to an estimate from 2010. Your information, when combined with that of other for-hire industry operators in the state, will allow us to establish a more up-to-date baseline of the economic value of the industry. **Your responses will help fulfill your reporting requirements and will be protected under North Carolina General Statute § 113-170.3(c).** Results of this survey will only be released for public use in aggregate statistical form. Please answer all questions using your information from the 2022 calendar year only.

Note: If you own/operate more than one for-hire vessel, please focus on your PRIMARY vessel as you complete this survey.

Section 1: General Information

1. Please enter your personal ID number found on the first page of your mailing packet:

2. Are you a for-hire (select one):

- Owner and captain
- Owner, but not captain
- Captain (private / corporate business), but not owner

3. How long have you actively owned / captained / operated for-hire fishing vessels? *Note: Active means operating for business purposes, either full-time or part-time.*

4.

6-Pack Guide Boats	A guide boat is a for-hire fishing boat that carries 4 passengers or less and mostly fishes near shore, inshore, bays, and inlets.
6-Pack Charter Boats	6-passenger charter boat is an uninspected for-hire fishing vessel that carries 6 persons or fewer and mostly fishes offshore and inshore waters.
Head Boats	A head boat is a vessel that has a USCG Certificate of Inspection (COI) that generally carries more than 6 passengers and charges a fee per passenger, for a specified navigation route. There may be a minimum number of passengers required in order to depart on the trip

How many boats in each of the following categories do you own, if any?

6-Pack Guide Boats _____

6-Pack Charter Boats _____

Head Boats _____

5. What percentage of your personal annual gross income in 2022 was from charter fishing activities?

- 0-25 %
- 26-50 %
- 51-75 %
- 76-100 %

6. Do you have alternative sources of income other than recreational for-hire fishing?

- No
- If yes, please describe:

7. What coastal county is your **main departure point** for your **primary vessel** located in?
(Please select one.)

<input type="radio"/> Dare County	<input type="radio"/> Beaufort County
<input type="radio"/> Hyde County	<input type="radio"/> Pamlico County
<input type="radio"/> Currituck County	<input type="radio"/> Craven County
<input type="radio"/> Camden County	<input type="radio"/> Carteret County
<input type="radio"/> Tyrrell County	<input type="radio"/> Onslow County
<input type="radio"/> Washington County	<input type="radio"/> Pender County
<input type="radio"/> Pasquotank County	<input type="radio"/> New Hanover County
<input type="radio"/> Perquimans County	<input type="radio"/> Brunswick County
<input type="radio"/> Chowan County	<input type="radio"/> Out of State (<i>please write in the county and state</i>): <hr/>

8. Do you live in the same county as your **main departure point**?

- Yes
- If no, what county do you live in?

9. Do you maintain membership in any of the following? (Check all that apply to you.)

- A local, state, or regional charter boat association**
- A national association for charter boat operators** (*for example: National Association of Charterboat Operators, etc.*)
- A recreational fishing conservation / lobbying organization** (*for example: Coastal Conservation Association, Recreational Fishing Alliance, etc.*)
- A non-fishing environmental / conservation group** (*for example: Sierra Club, Surfrider Foundation, etc.*)
- Chamber(s) of Commerce**
- Other - Please describe:**

Section 2: 2022 Trip Information

10. What is the number of full-time crewmembers (not including the captain) on your **primary vessel**?

11. What is the number of part-time crewmembers (not including the captain) on your **primary vessel**?

12. Approximately how many for-hire trips did you take in 2022 on your **primary vessel**?

www.english-test.net

13. Where were the majority of trips taken on your **primary vessel** in 2022?

- Inshore / Nearshore** (*estuarine waters and in ocean less than 3 miles*)
- Offshore** (*in ocean greater than 3 miles*)
- Both** (*trips are **equally split** between "inshore / nearshore" and "offshore"*)

14. Please estimate your monthly fixed / overhead costs in 2022 for your **primary vessel**.

Dock / slip fees per month

(\\$) _____

Vessel loan payment per month (if any)

(\\$) _____

Vessel insurance payment per month

(\$) _____

15. Please estimate your yearly fixed / overhead costs in 2022 for your **primary vessel**.

State (NC) recreational fishing permit / license / registration fees (ex: for-hire blanket license, vessel registration, etc.)

(\$)

Federal recreational fishing permit / license / registration fees (ex: rec. HMS / tuna permits, South Atlantic or Mid-Atlantic permits, Coast Guard vessel registration, etc.)

(\$)

Commercial fishing permit / license fees (if any)

(\$)

Fishing supplies (ex: tackle, equipment purchases, safety equipment, etc.)

(\$)

Electronics costs (ex: radio, navigation, fish finding, satellite phones, etc.)

(\$)

Engine repair and maintenance costs

(\$)

Boat yard (NOT including engine repair costs)

(\$)

Other vessel maintenance (NOT electronics or engine -covered above)

(\$)

Fishing association / professional fees

(\$)

Accounting / book keeping fees

(\$)

Administrative / staffing costs

(\$)

Advertising / promotion costs (ex: ads, websites, shows, booking fees to marina, tournament fees, travel, entertainment, merchandise, etc.)

(\$)

16. How many **full-day** for-hire trips did you make in 2022 on your **primary vessel**? Please write "0" if none were taken.

17. List your average cost for the following items during a **full-day** trip on your **primary vessel**. Please skip to Question 18 if you made no full-day trips in 2022.

Fuel / oil

(\$) _____

Bait

(\$) _____

Ice

(\$) _____

Food / drinks

(\$) _____

Pay to captain (if not owner)

(\$) _____

Total pay to mate / crew (not including tips)

(\$) _____

Average tips to mate / crew

(\$) _____

18. How many **half-day** for-hire trips did you make in 2022 on your **primary vessel**? Please write "0" if none were taken.

19. List your average cost for the following items during a **half-day** trip on your **primary vessel**. Please skip to Question 20 if you made no half-day trips in 2022.

Fuel / oil

(\$)

Bait

(\$)

Ice

(\$)

Food / drinks

(\$)

Pay to captain (if not owner)

(\$)

Total pay to mate / crew (not including tips)

(\$)

Average tips to mate / crew

(\$)

20. What are your:

Full-Day Rates per trip (\$)

Half-Day Rates per trip (\$)

21. What species do you normally target on your **primary vessel**? (Check all that apply to you.)

<input type="checkbox"/>	Flounder	<input type="checkbox"/>	Tunas
<input type="checkbox"/>	Red Drum	<input type="checkbox"/>	King Mackerel
<input type="checkbox"/>	Spotted Seatrout	<input type="checkbox"/>	Sharks
<input type="checkbox"/>	Black Sea Bass	<input type="checkbox"/>	Dolphinfish (Mahi-mahi)
<input type="checkbox"/>	False Albacore	<input type="checkbox"/>	Snapper
<input type="checkbox"/>	Cobia	<input type="checkbox"/>	Grouper
<input type="checkbox"/>	Striped Bass	<input type="checkbox"/>	Triggerfish
<input type="checkbox"/>	Bluefish	<input type="checkbox"/>	Wahoo
<input type="checkbox"/>	Spanish Mackerel	<input type="checkbox"/>	Greater Amberjack
<input type="checkbox"/>	Sheepshead	<input type="checkbox"/>	Ribbonfish
<input type="checkbox"/>	Black Drum	<input type="checkbox"/>	Other:
<input type="checkbox"/>	Billfish		

22. Do you offer non-fishing trips on your **primary vessel**? (ex: *duck hunting, sightseeing, eco-tours, dolphin watching, water taxi, etc.*)

- No
- If yes, estimate how many non-fishing trips you took in 2022:

23. What are your:

Full-Day Non-fishing Rates per trip

(\$) _____

Half-Day Non-fishing Rates per trip

(\$) _____

Section 3: Fisheries Management and Regulations

24. Are you involved in fisheries management at the state, interstate, or federal level? (ex: *NCDMF Regional Advisory Committee, Mid-Atlantic Fishery Management Council, Atlantic HMS Advisory Panel, etc.*)

Yes

No

25. If yes to Question 24, check all that apply to you:

- Involved in fisheries management at the state level
- Involved in fisheries management at the interstate level
- Involved in fisheries management at the federal level
- Attend meetings and / or make public comments
- Other:

26. Using a scale of 1 to 5, how important do you consider each of these issues to the for-hire fishing industry, and to you personally? (1) meaning "it's not important or doesn't affect me" and (5) meaning "it's extremely important or it affects me a great deal".

	1	2	3	4	5
Keeping up with rules and regulations	<input type="radio"/>				
Water quality / pollution	<input type="radio"/>				
Bag limits / size limits	<input type="radio"/>				
Competition from other recreational fishermen / crowding	<input type="radio"/>				
Competition from commercial fishermen	<input type="radio"/>				
Overfishing	<input type="radio"/>				
Infrastructure / waterfront access	<input type="radio"/>				
Climate change	<input type="radio"/>				
Other:	<input type="radio"/>				

27. Please describe any changes you would like to see in North Carolina's fisheries.

28. Would you like to see any changes to the NC for-hire industry? (Please rate your level of support.)

	Strongly oppose	Oppose	Indifferent	Support	Strongly support
Higher charter license fees	<input type="radio"/>				
Limited Entry / Permit Cap Program	<input type="radio"/>				
Mandatory liability insurance	<input type="radio"/>				
Stricter safety gear requirements on vessels	<input type="radio"/>				
For-hire specific allocations / regulations	<input type="radio"/>				
Mandatory recreational reporting	<input type="radio"/>				
Other:	<input type="radio"/>				

29. To maintain a financially healthy for-hire industry in NC, do you believe the number of vessels in the NC for-hire fleet is:

- Much too small
- Somewhat small
- About right
- Somewhat large
- Much too large

End of Survey. Thank You for Your Participation!

A.3 Question 27

Question 27: Please describe any changes you would like to see in North Carolina's fisheries.

- Bag Limits or Seasons
 - Dolphin
 - * "Size limit on dolphin (mahi-mahi) of 24 inches."
 - * "Hope we get their full support to keep dolphin limit at 54 and no minimum size."
 - Flounder
 - * "Open ocean flounder since 99% are summer and gulf."
 - * "I would like to see heavier restrictions or cease/desist placed on seines and pound nets for commercial flounder fishing in order to leave the recreational season open year around."
 - * "Allow season long, daily flounder limit of (1) per person. I don't even target them but have caught more the last couple seasons than ever, and couldn't keep one..."
 - * "More time added to flounder season."
 - * "Change the flounder regulations to match red drum. One per day per person."
 - * "Allow charter tags for closed fish like flounder."
 - * "Flounder season needs to reopen."
 - * "No recreational flounder gigging during the flounder season."
 - * "Please let us have more flounder per person on the 30 day season."
 - * "Allow a bigger bag limit for flounder.....currently we are allowed only one fish per person and the season is only for a month. We are catching many flounder....on 20 and 30 mile offshore bottom fishing trips we are catching flounder on the offshore ledges and they are NOT the target species."
 - * "Flounder populations seem to be high, yet no season for them."
 - * "Slot for flounder 15-20, bag limit 2 per day."
 - * "We need to be able to catch flounder year-round to get fishing trips. Even if it's only 1 per person on the charter trips."
 - * "Increase flounder bag limit or season – maybe something similar to the red drum regulations."
 - * "Add a slot limit to all game fish (inshore) species to prevent any closure of season. For example, make flounder 15-20"
 - * "Open Ocellated Flounder fishing harvest / public knows the difference."
 - * "Consideration of a nearshore flounder fishery for recs between June – September."
 - * "Decrease limits and seasonal restrictions on flounder and American red snapper. South-eastern NC fisheries has recovered well compared to Northeastern NC."
 - * "Slot limits put in place for speckled trout and flounder in order to protect our breeding stock."
 - Gray Trout
 - * "Eventually see increase in weakfish bag limits."
 - * "Allow a bigger bag limit for grey trout...we are catching many and we are only allowed one fish per person."
 - * "Slot for grey trout 15-20" with one over, bag limit 2 per day (no more than 2 over 20" per boat.)"
 - * "An addition of 1 gray trout to the current 1 per person per day regulation for recs."
 - Red Drum
 - * "Would like to see red drum go up to 2 fish with a slot of 18"-25"."
 - * "Bag limit for red drum to 2 per day."

- * “Red drum has completely recovered. We are killing a lot of red drum catch and release (Dead discard-what a waste). Up the limit to 5 per person.”
- Red Snapper
 - * “Have a red snapper season like SC.”
 - * “American red snapper should be allowable more than one weekend in June, they are definitely thriving in the NC waters.”
 - * “Longer American red snapper season for recreational fishery.”
 - * “Take over American Red Snapper season and allow more access to harvest them.”
 - * “Tag program for American Red Snapper just like deer hunting.”
 - * “Open the American red snapper season a little more.”
 - * “A legitimate red snapper season. Everyone using descending devices, NOT venting tools.”
 - * “Genuine red snapper open more than two days a year.”
 - * “A longer American Red Snapper season.”
 - * “The American Red Snapper is not, I repeat NOT, endangered and should be allowed to be retained on charter boats similar to the cobia catch limits. They will over run our fishery and ruin all other species if we do not harvest them.”
 - * “Have some kind of reasonable red snapper fishery.”
 - * “Lifting of closure of red snapper as they have become a nuisance.”
 - * “Decrease limits and seasonal restrictions on flounder and American red snapper. South-eastern NC fisheries has recovered well compared to Northeastern NC.”
- Speckled Trout
 - * “Speckled trout slot size of 16”-20” with 1 over 20” allowed.”
 - * “Slot on speckled trout 16-21 inches. Trout down to keep 2.”
 - * “Maybe a slot on trout.”
 - * “Slot for Speckled Trout 15-20” with one over, bag limit 3 per day (no more than 2 over per boat).”
 - * “Slot limit for speckled trout.”
 - * “Add a slot limit to all game fish (inshore) species to prevent any closure of season. For example, make flounder 15-20” and trout 15-20” as well.”
 - * “Slot limits put in place for speckled trout and flounder in order to protect our breeding stock.”
- Striped Bass
 - * “Striped bass and flounder populations seem to be high, yet no season for them.”
 - * “Open up stripers harvest in the CSMA.”
- Tilefish
 - * “Increase in Tilefish season.”
 - * “Longer tilefish season.”
- Charter Fishing
 - “There are countless operators (recreational, for-hire, commercial) that are not properly licensed/permited and do not adhere to season dates and catch guidelines.”
 - “The reporting requirements are too much. These need to be cut back. The surveys and weekly reporting need to be reduced.”
 - “Also, a added permit for For-Hire Commercial Status.”
 - “Also maker it to be a charter boat you must be grandfathered in or make 75% of your living fishing.”
 - “For-hire charter industry represented on the NCDMF Council.”
 - “Limit charter fishing access. Too many charter boats.”

- “Price reduction for NCDMF fees for head boats. We pay more than anyone because of the “per foot” fee, and we aren’t allowed to sell anything.”
- “The USCG, NPS (Cape Lookout), and Marine Patrol needs to better check on for-hire captains that do not have all the necessary credentials to be running charters, it’s rampant!”
- “Leave the charter catches alone!”
- “Allow a standard commercial state license permit holder to be able to sell a recreation limit of bottom fish and king mackerel without a federal permit like the old days.”
- ”Separate charter from recreational as it used to be or be their own category. Have a charter / head boat seat on the MFC board preferably someone not directly tied to the CCA like many other seats are.”
- ”Mandatory liability insurance required for charter and commercial boats.”
- “Limited entry for guides licenses.”
- “I would like to see out of state bluefin fishermen have to purchase a higher priced license than a NC bluefin fisherman. They can get a landing permit cheaper than me maintaining my commercial fishing license.”
- ”Federal-“Fight speed restrictions on 35’ vessels. Fight insurance rule change.”
- ”Fish tags so we can pinpoint catches. Charter boat would get 100 trout tags, 50 black drum, etc. so when you have caught your tag limit it’s all catch and release.”
- ”There are too many part time guides in the industry. In my opinion, if you are not making the majority of income commercial fishing or guiding then you should not be granted a full license.”
- ”Permit costs. How can NC charge \$250 for state permit and federal permit without tuna costs \$42.”
- ”Relaxed regulations for charter captains to provide enough desirable fish to bring to the dock. With the cost of the charter most people will not go to catch / keep 1 drum, 1 gray trout, and 0 flounder!”
- ”Combine federal and state rules / permits to make it reasonable to do business without having a rocket science degree!”
- ”More quota for recreation / for-hire.”
- ”Any person that runs a charter operation needs to be experienced on the water. We have too many people running charters without enough experience.”
- ”Really need for-hire limited entry and logbooks.”

- Commercial Fishing

- ”Would like to see the inshore trawlers moved from inshore waters. Would like to see gill nets be gone.”
- ”Stop allowing the commercial group to overfishing. Stop net trawling in the rivers and don’t allow “ANYBODY” that’s not born in North Carolina to be allowed to run a trawler in our state waters.”
- ”I would like to see heavier restrictions or cease/desist placed on seines and pound nets for commercial flounder fishing in order to leave the recreational season open year around.”
- ”Better protect inshore areas from nets & trawling.”
- ”Eliminate inshore gill nets- has gotten better last 5 years. By catch of trawlers... I see so many small dead fish when following shrimp boats in ocean during albacore season.”
- ”No inshore trawling
- ”Stop netting.”
- ”Headrope size reduction for trawl nets in the Croatan Sound.”
- ”No gill nets!!!”
- ”Inland nets removed.”

- “More access to commercial fisheries for those w/ standard commercial license.”
- ”Banning of gill nets inshore.”
- “Ban the damn gill nets inshore already. Guys totally cause localized depletion especially in the winter time with gill nets in the bays and creeks. We are never going to have healthy fisheries until this is addressed. Lets take a look at that instead of “rec mortality”.”
- “More regulation on shrimp boats killing migrating menhaden. They kill everything including flounder.
- “Limit conventional nets and crabbing.”
- “Allow a standard commercial state license permit holder to be able to sell a recreation limit of bottom fish and king mackerel without a federal permit like the old days. So you can get rid of the black market dealers.”
- “Remove gill nets and stop overharvest.”
- “Nets out of nursery.”
- ”Removal of trawl nets from inshore waters especially nursery areas.”
- ”Mandatory liability insurance required for charter and commercial boats.”
- “Reduce inshore netting. Allow hook and line commercial fishing for speckled trout and red drum to eliminate bi-catch.”
- “Stronger protection of fishery from shrimping and commercial fish nets.”
- “Regulations made to reduce shrimp boats by catch.”
- ”Different inshore netting regulations for Pamlico/Currituck/etc. sounds as opposed to “middle marsh” areas such as near Wrightsville Beach /Topsail.”
- “Ban gillnets in estuary waters just like Louisiana, Texas, and Florida. NC is failing at maintain our public trust marine resources.”
- ”Commercial fishing is hurting the fish numbers more. Make size and bag limits stricter for commercial fishermen.”
- “Netters at mouth of creeks leaving nets unchecked for several days.”
- ”Get the trawlers out of our estuaries. Do away with gill nets.”
- ”No gill nets inshore!! No netting of any type where shrimp trawling is forbidden! Nets kill the populations.”
- ”Small mesh nets out of creeks.”
- ”Reduction in unattended gill nets.”
- ”Stronger regulations / enforcement on commercial fishing.”
- ”Eliminate inshore gill nets.”
- ”Legislative ban on gillnets and inshore trawls.”
- ”No ITP – lets quit killing sea turtles!!!”
- ”Inshore commercial net ban.”
- ”Remove all gillnets to meet the standards other states have implemented.”
- ”Cut these commercial allocations of drum / trout / southern flounder to reduce economic loss and end much of the controversy.”
- ”Restrict trawling! NC is way too commercial focused in its management.”
- ”Specifically, in the estuarine waters we need to manage more proactively and remove gill nets and otter trawls from all estuaries.”
- ”Eliminate nets from inshore waters.”
- ”I would like to see NC do away with the netting and shrimp trawling in all of the creeks and estuaries. If they could do that and do regulations like the other states, then you could get the fishery back stable again.”

- Enforcement

- "Enforcement needs to greatly improve. There are countless operators (recreational, for-hire, commercial) that are not properly licensed/permited and do not adhere to season dates and catch guidelines."
- "More enforcement. More MF officers on the water day and night."
- "Proper enforcement of current regs and law."
- "Also, more patrolling of coastal waters."
- "The USCG, NPS (Cape Lookout), and Marine Patrol needs to better check on for-hire captains that do not have all the necessary credentials to be running charters, it's rampant!"
- "More patrols by marine fisheries officers and boat checks of commercial and recreational boats."
- "More enforcement – I call on people all the time – no one cares! The charters are too afraid to keep more than legal – but it's the small transit rec people flopping flounders in their boats. It burns met up!"
- "More LEO's on the water enforcing existing laws."
- "More boat inspections. Drug testing on crew members."
- "More law enforcement."

- Fisheries Management

- "Proper surveying. Survey methods are outdated, and the fishermen are suffering from the consequences. I would like to have a management system in place to eradicate the lionfish! The lionfish are doing far more damage to our reefs than any fishermen are doing."
- "Too much government overstep. Tell CCA to shove it. Leave us and the commercial guys alone."
- "Regulations for migratory species be similar to our neighboring states, VA and SC. Currently they are not even close for all species."
- "More proactive communication of regulations for inshore flounder / bluefish fishery."
- "The reporting requirements are too much. These need to be cut back. The surveys and weekly reporting need to be reduced."
- "Better communication with the full-time for hire operators and weigh station certified tackle shops in regards to fish harvest info and up-to-date intel/climate of consumers. Also, a added permit for For-Hire Commercial Status."
- "My business really took a bad hit since covid started. The two "cane" payments really helped me pay the bills. I have never made much money but it has paid all my fishing bills and I have enjoyed taking people fishing and getting on the water. My best years including Roanoke Trips were about 70-80 trips per year. What I learned from being on the DMF Central Advisory Board was that most commercial fishermen do not believe the findings from the marine biologist and do not want any regulations. Our fisheries could be some of the best in the SE states with regulations that care mostly about the fish and future generations. I hope we (NC) will be like states like Florida."
- "More control over commercial bluefin and yellowfin tunas."
- "Better management of the fishery. Better balance commercial vs recreational of flounder why does recreational not get a 1 a day incidental you cannot avoid catching a flounder hooked mortally."
- "I would like to see our fisheries manage our fish stocks free from any influence from the commercial fishing lobby."
- "No drones over the water."
- "Have more administrators and decision makers with hands on experience, days on the water, better understanding."

- “I would like to see the fisheries managed by people who have a clue what’s actually out there, i.e. flounders & red snappers. I’ve never been asked by any fisheries management what’s really out there. It’s a joke the way rules are made currently.”
- “Recreation fisherman have reduced limits or have to purchase an additional license.”
- “Keep up with regs in nearby states.”
- “Better management of the inshore fishery. Nets and shrimp trawlers run the industry. Rec fishermen are taking a large amount of trout as well.”
- “Mandatory reporting for the recreational sector, same as the charter and head boats.”
- “Better stocking program, less vessels on water in some areas.”
- “More recreational oversight/limits. Limits on dive boat/spearfishing limits.”
- “I would like to see better limits and seasons set by people who know the fish species and what needs to be done over the long run, not go crazy and stop and fishing for different species.”
- “Listen to the fishermen that make a living fishing before they make rules not based on the local knowledge.”
- “Projects to increase fish populations.”
- “A stamp for fishing beyond 3 miles or at least a check box for your intended activities. They have them for oystering, cast net, gigging. Need check boxes for offshore activities and for spearfishing.”
- “Common sense.”
- “Pay attention to what the fishermen have to say. Rules in general don’t make sense about limits and closures. We’re out there everyday not sitting in an office with a degree and no experience.”
- “Better fishery management. Put some stock in the data provided by fishermen. They talk about overfishing but that’s a relative term. Ex: State tells us flounders are experiencing overfishing. Reality is flounder stock is fine. Magnuson Stevens Act needs to be revisited. State fishery management always take / close they don’t open any fisheries. Only make it harder. Look at red snapper and what other states are doing.”
- “Some relief from high fuel costs. Less regulations and reporting.”
- “Fire Cooper, dissolve DMF.”
- “Improved water quality, reduction in unattended gill nets, ability ”to make a trip” meaning enough things to target open at the same time to make it worth what we charge. We primarily participate in catch and release, but some keeper options are important to customers.”
- “Bag limit and size – readily consistent!”
- “Marine Fisheries being proactive when it comes to rules and regulation. Not waiting when it appears a species might be overfished or that there is another problem.”
- “Transparent, logical, and data driven management of the resources.”
- “Scientific fact-based regulations and limits. Recreational reporting.”
- “More quota for recreation / for-hire.”
- “Bag limits, size limits, and year-round fisheries.”
- “State workers doesn’t understand federal permits / rules / zone.”
- “North Carolina needs to manage the fisheries, stop being reactive and start being proactive.”
- “Dissolve “joint waters”, Increased enforcement of current rules including for-hire / USCG licensees and commercial catches.”
- “Manage the southern zone separately from the larger nontidal central / northern zone.”

- “Management for abundance specifically versus managing for “maximum sustainable yield”
 - which always leads to overfishing. Specifically, in the estuarine waters we need to manage more proactively and remove gill nets and otter trawls from all estuaries.”
- “Not enough room here to type it all. Huge flaws in data collection and in the analyzation of it. Flounder mismanagement... closed season is not needed. Magic line above Hatteras that divides regulations in our state. Can easily fish down there but it is illegal to land north of it. Same for federal rules. Closing season early on tiles, etc.”
- “Logbooks for all recreational fishing for better information.”

- Waterfront Infrastructure or Access
 - ”Also, with the rapid influx of new residents in coastal communities boating access and parking has exceeded its maximum capacity. This has created a huge safety concern and negatively impacts for-hire and commercial fishermen that depend on state wildlife boat ramps.”
 - “Have a well-marked, good channel to ocean. Not the 40-minute route but the 10-minute route- could easily be dredged and save environment from boat traffic and save carbon footprint / fuel.”
 - “Better upkeep of wildlife ramps.”
 - “Better care of Oregon Inlet keeping it open.”
 - “Calabash River dredging.”
 - “Protection of boat yard.”
 - ”Better water access.”
 - “I would like the legislators to understand the importance of the working waterfronts to the coastal communities and act accordingly.”