

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

Potential Respondent Universe

The number of charter vessel license holders in Washington and Oregon in 2012 was 369. However, following the findings of the Washington and Oregon charter survey in 2007, a substantial portion of the 369 license holders will not go fishing in marine waters. Many will fish only in fresh water and others will carry passengers in marine waters but will do so for purposes other than fishing, such as wildlife watching. Absent contacting the vessels to ascertain their activities, the number of active marine fishing vessels in 2012 is unknown. Consequently, the number of marine charter fishing vessels is estimated to be the same proportion as in 2007, which was 70% or 258 vessels. Owners of each of the approximately 258 vessels, rather than captains, will be the target respondents because they possess the specific economic and social data for the operations they run. Contact information on the 2012 charter license holders was obtained from the Washington Department of Fish and Wildlife and the Oregon Department of Fish and Wildlife.

Sampling and Other Respondent Selection Methods

The survey will be conducted as a census of all charter license holders that actively engaged in marine charterboat fishing in 2012. The survey will be conducted in two phases. Phase 1 will consist of a telephone pre-survey to determine license holders that actively engaged in marine charter fishing. Phase 2 consists of a mixed mode design to collect detail cost earnings data from active marine charterboat participants. Active marine charter vessel owners will then receive a formal letter of invitation to participate in the survey as well as a fact sheet of the commonly asked questions and answers about the survey. Following mailing of the letter of invitation, owners will be contacted by phone to confirm receipt of the letter of invitation, and asked to schedule a one hour interview appointment. Interviews will be conducted in-person for each owner during the scheduled time. Previous cost earnings surveys of charter vessels have demonstrated the effectiveness of in-person interviews in collecting data and obtaining accurate information. In order to improve the quality of information collected, in-person survey administration will be the preferred mode for the study. However, to maximize the response rate and ensure the survey sample is representative of our respondent universe, respondents will be offered telephone or mail-in mode interviews.

Expected Response Rate

The expected rate among the target population of charter license holders actively engaged in marine charter fishing in 2012 is 55%. The response rates achieved in the 2007 marine charter survey in Washington and Oregon are instructive to determine the expected response rate. The initial contact (Phase 1) to determine the active marine charter vessels was done via telephone as

currently planned. However, Phase 2 was a different because surveys were completed via mail only. In the prior survey, there were 287 license holders. 47 license holders or 16% of the total were unable to be contacted due to either bad contact information or failure to return phone calls. Of the remaining 240 license holders for which contact was made, 71 did not participate in marine charter fishing, 70 refused to participate in the survey, and 99 completed the survey. Using the conservative assumption that all 70 who refused to participate in the survey were active marine charter vessels, the total number of active participants was 169, and the percentage of active license holders was 70% (169/240). For the 47 vessels in which contact was not achieved, some were likely active marine charter vessels and some were not. Assuming that the non-contacts were distributed between active and not-active marine charter vessels in the same manner as the vessels in which contact was achieved, 70% or 33 of the vessels not contacted were active. The total population of active charter vessels in the 2007 survey was 202 (completes+refusals+non-contact amount). The 99 surveys received were 49% of active vessels. We expect to be able to increase the response rate from the 2007 survey. We expect to reach our desired response rate by increasing the industry's awareness of the study and interest in participation through outreach and by offering a flexible mode design.

Survey response rate from active marine vessels, 2007 survey	49 %
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Expected Response Rates 2012 Survey

Total Charter License Holders Population	369
Number reached for initial telephone screen	310
Expected number active marine fishing charter operators	258
Expected survey response rate	55 %
Expected # survey respondents	142

2. Describe the procedures for the collection, including: the statistical methodology for stratification and sample selection; the estimation procedure; the degree of accuracy needed for the purpose described in the justification; any unusual problems requiring specialized sampling procedures; and any use of periodic (less frequent than annual) data collection cycles to reduce burden.

Data collection and sample selection methods are detailed in Question 1. Since we intend to conduct a census of all active marine charter vessels in Washington and Oregon, there is no stratification of the population.

The primary importance of these data is to evaluate the cost and earnings structure of the entire Washington and Oregon marine charter fishery. To achieve this aim we plan to conduct a census of all 258 vessels actively involved in the fishery. Assuming a response rate of 55%, we expect to obtain 142 complete and usable surveys. This would allow us to report sample means within 10% of the population mean at 99% confidence across the entire fishery. This level of accuracy is sufficient to evaluate the economic impacts from proposed management options on the

Washington and Oregon charter vessel fishery, and to contribute to the development of the coast-wide I/O model for recreational fishing.

The data will be summarized with mean and standard deviations reported for every revenue and cost variable. The methodology and presentation of the results will follow that contained in the NOAA Technical Memoranda by Lian (2012, 2010), also included as supplemental documents:

http://www.nwfsc.noaa.gov/assets/25/7569_11092010_161408_CostEarningsSurveyTM107WebFinal.pdf

http://www.nwfsc.noaa.gov/assets/25/8778_01232013_114027_LESurvey2008TM121WebFinal~Std.pdf

Tables will display the mean and standard deviations of each of the cost categories contained in the survey: payments to captain, payments to crew, fuel, principal payment, interest payments industry association fees/memberships, moorage, booking fees, haul out, repair and maintenance bait, ice, taxes, telephone and other communications, advertising services or charges, and insurance. Tables will display mean and standard deviations of revenue sources: recreational fishing for different species (salmon, groundfish, halibut, tuna/albacore, shellfish), commercial fishing, nature watching trips, Non-fishing scuba diving trips, burials at sea, souvenirs, lodging that is owned by charter boat owner, and equipment rental.

The data collection will yield data required in the estimation of the Input Output Model for Pacific Coast Fisheries (IO-PAC), which is used to provide statutorily required estimates to the Pacific Fishery Management Council for fisheries under Fishery Management Plans (FMPs) administered in the Northwest and Southwest regions. The results are used to create production functions for charter businesses. In addition, survey results were used to create total industry output, employment, employee compensation, proprietor income and taxes paid. For every dollar of output, amounts are paid to providers of inputs from other sectors, so that every dollar of charter vessel output can be broken into material input costs and value above costs of inputs, which is value-added. The use of the data in the IO-PAC model is discussed in section 5.5 of the following document, also included as a supplemental document:

http://www.pcouncil.org/wp-content/uploads/IOPAC_SSC_Econ_Review_April_NWC.pdf

3. Describe the methods used to maximize response rates and to deal with nonresponse. The accuracy and reliability of the information collected must be shown to be adequate for the intended uses. For collections based on sampling, a special justification must be provided if they will not yield "reliable" data that can be generalized to the universe studied.

Strategy to Maximize Response Rates

We assume an estimated response rate of 55% based on the 49% response rate of the 2007 Washington and Oregon marine charter survey, our comprehensive outreach plan, and the mixed

mode nature of the interviews. There are no previous studies of the fleet to suggest a higher expected response rate. A higher than expected response rate will increase the statistical confidence in the study's findings.

There are numerous methods we will administer to achieve the estimated 55% response rate. Extensive outreach activities informing the fishermen and fishing associations of the purpose and need for the cost-earnings survey are expected to facilitate survey participation and completion. Outreach efforts will be coordinated with industry representatives. Outreach will occur on a number of levels and may include the following:

- Contacting Westport Washington and Puget Sound charter professional organizations and an influential Oregon charter vessel owner.
- Generating a fact sheet of commonly asked questions and answers.
- Sending a formal briefing letter on the data collection effort to all active charter license holders.
- Maintaining information regarding the data collection effort on the internet.

Additional methods for improving the response rate include offering participants in-person, telephone or mail-in mode interviews.

Strategy to Address Non-Response

All charter vessels in Washington and Oregon are required to be registered with the respective state fish and wildlife agencies. Using these resources, we are aware of the spatial distribution of registered vessels by homeport across Washington and Oregon. Additionally, the length of the vessel is maintained in the state databases. Based on the distribution of survey responses that we receive, these databases provide a link, both spatial and length-based, to validate the representativeness of our sample. If non-response bias appears evident in our survey responses, weighting methods will be developed to account for at least part of any non-response.

4. Describe any tests of procedures or methods to be undertaken. Tests are encouraged as effective means to refine collections, but if ten or more test respondents are involved OMB must give prior approval.

The survey instrument closely mirrors an instrument successfully fielded by the NWFSC and Pacific States Marine Fisheries Commission in 2007 and a survey currently underway of California Commercial Passenger Fishing Vessels (CPFV) OMB Control No. 0648-0369. The survey has been designed using the prior, 2007, survey of Washington and Oregon charter vessels and feedback from representatives of the Westport Charterboat Association, Charterboat Owners of Puget Sound and an Oregon charter vessel owner who is involved in fishery management issues through his appointment in the Pacific Fishery Management Council. The proposed survey instrument also utilizes feedback from a pilot study of the San Diego CPFV industry consisting of interviews of eight CPFV owners representing 10 vessels from a total of 76 vessels registered in San Diego County in 2011.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

There is no sampling involved in this survey, so there are minimal statistical aspects to the design. The two phase approach of reaching all active marine charter vessels and the merits of using in-person interviews in Phase 2 of the survey was discussed with the following individuals.

Dr. Leif Anderson, Economist Northwest Fisheries Science Center 206-302-2403

Dr. Carl Lian, Economist Northwest Fisheries Science Center 206-302-2414

The data will be collected via a grant to Pacific States Marine Fisheries Commission (PSFMC), who may employ a contractor to assist with the survey. The Northwest Fisheries Science Center has successfully completed 9 surveys previously in cooperation with PSFMC.