

**SUPPORTING STATEMENT
 GULF OF ALASKA TRAWL GROUND FISH FISHERY RATIONALIZATION SOCIAL
 STUDY – CATCHER PROCESSOR SOCIO-CULTURAL SURVEY
 OMB CONTROL NO. 0648-XXXX**

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.

The respondent universe for this study includes those individuals, partners, and businesses, associated with the catcher processor (C/P) fleet that is likely to be impacted by a new Gulf of Alaska groundfish trawl bycatch management program. Types of respondents expected include C/P vessel owners, C/P shipboard management (e.g., skippers, head engineers, factory plant managers), and fishing and processing crew aboard C/P groundfish vessels.

The survey will be a census of the GOA trawl fishery C/P sector as described; that is, all individuals who meet the descriptions above. The only respondent categories with known numbers are the C/P vessel owners. For all other respondent populations, the number of people in the population can only be estimated using our best available data (see table below).

Calculations have been developed to estimate the number of respondents. Values for these calculations come from a combination of published data, confidential fisheries data, and previous data collection efforts. To determine the number of C/P vessels active in the Federal Gulf of Alaska groundfish trawl fishery, we queried NMFS confidential fisheries statistics (e.g., NMFS Alaska Region catch accounting system) to determine which vessels had processed any groundfish caught in the Gulf of Alaska. This provides a list of 20 active C/P vessels which we then merged with State of Alaska confidential fisheries data (e.g., Commercial Fisheries Entry Commission adjusted fish tickets) to determine the weighted average number of crew aboard these vessels. Assuming these vessels used the same crew for all of their Gulf of Alaska groundfish trawl trips, we summed the average number of crew members aboard each vessel participating in the fishery to get a total number of crew aboard C/P vessels.

Description	No. Unique Entities	No. estimated target respondents	Estimated response (60% response rate)
Catcher-Processor Company Management*	8	24	14
Catcher-Processor Shipboard Management	100	100	60
Catcher-Processor Deck and Processing Crew	702	702	421
Total		826	495

*There are 8 companies that own vessels participating in the GOA trawl fishery. We assume that between one and three people from each corporate office will collaborate on completing the *Company Manager* survey.

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.

As previously mentioned in Question B.1, the approach to this study is to conduct a census of the study population. All individuals who meet the study criteria will be provided an opportunity to participate in the research. Therefore, the respondent population will not be composed of/obtained by a random sample or other statistical representation of the study population. Respondent selection will be based solely on the criteria of the individuals' having an active role in the Gulf of Alaska Groundfish Trawl Fishery, where those expected roles have been previously addressed in Question B.1.

Data collection for company management respondents will occur primarily through in-person survey administration and unstructured interviews. Researchers will discuss the research with study participants, administer the surveys, be available to answer any questions, code the surveys for anonymity and confidentiality, and collect all the surveys upon completion. In the event individuals are unavailable to meet in person, various options will be available. Hard copy surveys can be provided either in person or via the mail, electronic versions will be available either for distribution via email or accessible over the internet. In the event of any mailing costs to return the survey, postage paid envelopes will be provided as appropriate. For shipboard management, deck crew, factory crew, and combis, survey administration will occur either through in-person survey administration at the time of contract signing or through hard copy surveys provided to each vessel. To ensure confidentiality, lock boxes will be provided to each parent company (in the event of survey completion at contract signing) and vessel (in the event of completion while out at sea) so that survey respondents can place their completed surveys in the locked box.

It is expected that a 60% response rate will be sufficient to properly represent the study population. This response rate is based on our experience with implementing other surveys in Alaska and conversations we have had with representatives of six of the eight parent companies regarding their willingness to participate and assist in the distribution of the surveys to their employees. Analysis of the results will be conducted to include the response rate for each question. This is an important aspect of the research, as the option to skip questions is being provided as an additional layer of confidentiality. The strength and accuracy of each piece of data will therefore be represented through the response rate of the question, in addition to the overall response rates.

Data collection is expected to be conducted only one time during late 2015 and the first half of 2016. Additional OMB clearance will be sought once the rationalization program has been fully designed in order to conduct a post-rationalization survey of the study population.

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.

Numerous steps have been, and will be, taken to maximize response rates and deal with non-response behavior. These efforts are described below.

Maximizing Response Rates

As a reminder, no statistical sampling methodology is intended for this study population; there is no specific sampling frame applied in this case.

The implementation techniques that will be employed are consistent with methods that maximize response rates.

The first step to increase response rates was to provide the opportunity for industry members to contribute to the development of and review the survey tool. We began working with C/P sector representatives from the main parent companies that participate in the GOA trawl fishery. These industry representatives have been working with us for the last nine months to develop survey instruments that are relevant to their sector, can be facilitated with minimal burden on their employees, and should be easy for respondents to complete. We have also had numerous discussions with the C/P parent companies to develop a strategy for reaching potential respondents that work on their vessels. Several of the sector representatives have already committed to serving as key informants, gate keepers, and primary contacts to many others in the sector. These individuals will assist in the communication of the research, will have access to literature about the study to be distributed to their constituents, and will assist researchers in the field to coordinate with study participants. The action of working with sector representatives and including them in the survey design and study and points of contact is expected to increase the response rate dramatically.

Second, communications with key people in the industry have indicated that many crew members do not speak very good English. To accommodate this and to increase the response rates with these populations, the survey will be translated into Tagalog and Spanish. For in person interviews, in anticipation that some crew members may not read, we will have available survey administrators that speak these languages in order to facilitate survey completion.

Additional efforts to increase response rates include in-person survey administration whenever possible. It has been the experience of other research efforts that conducting the research in person and collecting completed surveys immediately, dramatically increases response rates (Russell and Schneider 2013, Rea and Parker 1997, Robson 2002). In these in-person surveys, researchers will be able to discuss the research with study participants, administer the surveys, be available to answer any questions, code the surveys for anonymity and confidentiality, and collect all the surveys upon completion.

In the event individuals are unavailable to meet in person, multiple options will be provided to study participants to participate in the research: hard copy surveys will be provided either in person or via the mail or through delivery to the vessel. In the event of any mailing costs to return the survey, postage paid envelopes will be provided as appropriate. For individuals who are willing to work with us but don't want to fill out the survey, researchers will conduct an interview and complete the survey per the participant's responses. It will be clearly communicated that the individuals can stop their participation at any time, stop the completion of the survey at any time, or skip any questions of concern at any time, without any personal consequence.

In addition, the individuals participating in the research have the opportunity to communicate with the researcher and provide additional information that is of concern to them to be included in the data set.

Contact has also been made with other key members of NMFS, academia, and industry to better understand the study universe and to work together to collect a more complete data set. Communication with NMFS Alaska Regional Office, NMFS survey program personnel, other NMFS field personnel, and NPFMC personnel have been included in the collaborative efforts of this research. These efforts have increased the background knowledge available to the researchers, provided additional key informants and gate keepers to the industry, and have provided a communications network throughout the industry to conduct this research. This network of information available to the researchers will contribute to an increased response rate.

Non-respondents

To better understand why non-respondents did not return the survey and to determine if there are systematic differences between respondents and non-respondents, for those individuals who are not interested in the survey at all but are willing to participate in an interview, researchers will limit their data collection to short interviews. If a participant is willing to give us only a few minutes of their time, we will ask the survey questions related to their role in the fishery, their fishing history and demographics (questions 1 through 8 on the vessel manager and processing crew survey versions). These sections are estimated to take approximately 5 minutes to complete. These responses will be used to analyze non-response bias.

Information collected from non-respondents will aid in improving the survey implementation and to correct for non-response bias to the extent possible (e.g., Lew et. al. 2015).

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.

As the proposed study is similar to a recent data collection conducted by the principal investigators on a different subpopulation of the fishery (OMB Control No. 0648-0685), we have learned considerably from that effort and have revised this survey substantially to take into account the lessons learned from that effort. We have conducted a full review of the study description, the study methodology, and the survey instrument to account for the unique

characteristics of the C/P sector of the fishery. NMFS personnel, NPFMC personnel, and other federal personnel have reviewed the survey tool and provided comments on both the survey tool and the study. As previously discussed in Question 3, the principal investigators met with key C/P sector representatives to brief them on the research, discuss survey implementation and develop the survey in tandem. They were also provided with multiple opportunities to review the survey versions in an iterative process. Communication with reviewers is being maintained to 1) communicate changes to the survey tool as a result of the reviews, and 2) to lay the framework for the deployment of researchers into the field to conduct the research.

Information received from industry members and other NMFS personnel was found to be invaluable to the development and maintenance of the survey tool. As a result, updates of the survey tool were made to improve the tool. Their continued participation in this research is expected to contribute greatly to its success.

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.

The internal NMFS design, development, and review team included: Amber Himes-Cornell, Social Scientist AFSC (206) 526-4221; Stephen Kasperski, Economist AFSC (206) 526-4727; and Keeley Kent, Pacific States Marine Fisheries Commission researcher at the AFSC (206) 526-4728.

The primary individuals expected to collect the data include principal investigators Amber Himes-Cornell, social scientist at the AFSC, and Stephen Kasperski, Economist at the AFSC, and others to be identified. Individuals who are expected to analyze the data include Amber Himes-Cornell (206) 526-4221, Stephen Kasperski (206) 526-4727, and possibly others yet to be identified.

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