

**SUPPORTING STATEMENT  
SOCIO-ECONOMIC ASSESSMENT OF GULF OF MEXICO (SAGM) FISHERIES  
UNDER THE GROUPER-TILEFISH INDIVIDUAL FISHING QUOTA PROGRAM  
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 population of interest consists of 997 entities. These entities are mainly past participants in the GT-IFQ Program since its inception in 2010; however 65 of these accounts were never activated. The survey strategy calls for a census of this potential respondent universe. With the inclusion of online reporting capability, our goal is to achieve an unweighted response rate of 70%, resulting in approximately 700 completed surveys or sufficient partials.

In a similar study conducted by Knapp, the researchers garnered only a 43% response rate; however, they did not have online capabilities.<sup>1</sup> The study by Knapp surveyed 129 Alaska halibut IFQ shareholders to assess their perceptions about the performance of the program. Table 1 summarizes the key statistics about the proposed sampling strategy. Total burden hours are estimated to be 700 hours, representing one hour per 700 anticipated responses.

**Table 1: Sampling strategy for participants in the GT-IFQ Program.**

Population Size	Target Sample	Expected Response Rate	Anticipated Sample
997	997	0.70	700

**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.**

One time, voluntary surveys will be used to elicit information on the performance of the GT-IFQ Program. The list of participants will be provided by NMFS to the contractor. The contractor anticipates interviewing the entire universe of 997 participants using a self-administered online questionnaire and conducting in-person interviews with non-respondent large entities. Other non-responders would be targeted with a self-administered mail survey.

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<sup>1</sup> Knapp, G., 1997. Initial Effects of the Alaska Halibut IFQ Program: Survey Comments of Alaska Fishermen. *Marine Resource Economics*, Volume 12, pp. 239–248

**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.**

Following Dillman (2007)<sup>2</sup> we plan to adopt the following plan to achieve high response rates.

First, we have drafted a respondent-friendly questionnaire and will alert potential respondents of the impending data collection via a mailed “pre-notice letter.”

Second, we will use the mandatory reporting mechanism to the Online IFQ System to notify all current account holders of the availability of the online questionnaire. NMFS will provide information on past participants that do not have a current account.

Third, for relatively large entities that do not respond online, we will attempt to make an appointment for an in-person interview. The tentative criterion for a large entity is approximately 20,000 pounds of grouper-tilefish landed annually. However, the number of field interviews will be more a function of who does not respond online, their geographic dispersion, and travel funds in early 2014.

Fourth, for current account holders that do not respond online or to in-person interviews, as well as past participants that do not have active accounts, we will target them with a self-administered mail survey. Of the 997 accounts that comprise the population of interest, 219 (or 22%) did not have active accounts on 1/1/14. This could be for a number of reasons including no longer fishing, created a new corporation, never logged into the system since initial share distribution, and not providing an updated affirmation of U.S. citizenship. These 219 accounts represent an upper ceiling of possible entities that were allocated initial share at the start of the GT-IFQ Program and are now inactive in the G-T component of the Gulf reef fish fishery. We do have contact information for these accounts; however, 15 addresses have been deemed unreachable.

We plan to make four contacts by first class mail, with an additional contact (if necessary). These contacts will include: a) a ‘pre-notice letter’ to alert the respondent about the impending questionnaire; b) a ‘thank you postcard’ sent to the respondent a few days after mailing the survey expressing appreciation for taking the time to respond to the survey and indicating that the completed instrument was not received; c) if the completed survey instrument was not received within a few weeks of the earlier mailing, then a letter and replacement questionnaire will be mailed to the respondents urging them to collaborate with the data collection; and d) a ‘final letter or phone call’ within a week of sending the replacement questionnaire asking the respondent to complete the survey form, will also be conducted to increase the response rate to the mailed survey form.

If the IFQ program participant declines to participate in the survey effort, then the contractor will not attempt further contacts. In the event we receive less than an 80% response rate, we plan to

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<sup>2</sup> Dillman, D. A., 2007. Mail and Internet Surveys: The Tailored Design Method 2007 Update with New Internet, Visual, and Mixed-Mode Guide. 2<sup>nd</sup> Edition. John Wiley & Sons, Inc. Hoboken, NJ.

incorporate a weighting adjustment method (e.g., post-stratification) to deal with unit non-response. We plan to utilize a non-interview adjustment method to give a higher weight to interviewed IFQ program participants. The characteristics readily available to us to use in post-stratification will be amount of shares owned, years of participation in the GT-IFQ Program, and mailing address.

Fifth, respondents will be provided first class pre-paid envelopes so that they may easily return their completed questionnaires.

Lastly, the contractor will personalize the correspondence. Dillman (2007) notes that personalized mailings increase responses rates by 5-11% in four-contact general public surveys.

Sampling of the entire universe will provide for valid generalizations of the population. If non-response biases are detected, then standard methods described in statistical textbooks such as Cochran<sup>3</sup> and Lohr<sup>4</sup> will be employed.

**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.**

In addition to sharing the survey instrument with NMFS and GMFMC staff, as well as experts in academia, the attached survey was pre-tested with industry. Members of NMFS, GMFMC and industry will provide suggestions to improve the content and clarity of the final survey.

**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.**

Dr. David Cox is the President of QuanTech, Inc. and has extensive experience with survey design and implementation. For this project, he has supervised all aspects of survey design and planning for its implementation. He will also supervise the collection, storage, and synthesis of the collected information into a final deliverable product to the NMFS. Dr. Cox can be reached at (703) 312-7831.

Dr. Walter Keithly from Louisiana State University was hired by QuanTech, Inc. to design the survey instrument. Dr. Keithly can be reached at (225) 578-6296.

Dr. Assane Diagne is a staff economist for the GMFMC. He has reviewed the final questionnaire. He can be reached at (813) 348-1630.

Drs. Larry Perruso, Michael Travis, and Michael Jepson, social scientists employed by the NMFS, were consulted on the statistical design. NMFS social scientists and GMFMC staff will

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<sup>3</sup> Cochran, W. 1977. *Sampling Techniques*. 3rd Edition. Toronto. John Wiley and Sons.

<sup>4</sup> Lohr, S., 1998. *Sampling: Design and Analysis*. Duxbury Press.

also use the data for regulatory analysis. Drs. Perruso, Travis, and Jepson can be reached at (305) 361-4278, (301) 427-8549, and (727) 551-5756, respectively.