

SUPPORTING STATEMENT
ECONOMIC SURVEY OF GULF OF MEXICO (GOM) CAPTAINS AND CREW
ASSOCIATED WITH THE GOM GROUPER-TILEFISH INDIVIDUAL FISHING
QUOTA PROGRAM
OMB CONTROL NO. 0648-XXXX

A. JUSTIFICATION

1. Explain the circumstances that make the collection of information necessary.

The National Marine Fisheries Service (NMFS) proposes a one-time collection of economic and attitudinal data from hired captains and crew, about the grouper-tilefish component of the commercial Gulf of Mexico (GOM) reef fish fishery under the Grouper-Tilefish Individual Fishing Quota (GT-IFQ) Program.¹ The proposed data collection also enquires about hired captains' and crew's perceptions, attitudes, and beliefs about the performance of the IFQ program. According to the [Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006](#), (MSRA), IFQs fall under the umbrella of Limited Access Privilege Programs (LAPPs).

The population of interest consists of approximately 1,000 individuals. These individuals are hired captains or crew who have fished for federally managed species including grouper and tilefish in the GOM before and after the inception of the GT-IFQ Program in 2010. Questions related to the GT-IFQ Program will be skipped if the hired captain or crewmember has never fished for grouper or tilefish in the GOM. The survey strategy calls for visiting up to 20 fish dealers/processors located in the major grouper-tilefish landing ports in the survey area (TX – West FL) to obtain contacts for/introductions to captains and crew in these ports. Interviews with captains will be pre-scheduled based on referrals from the dealers. Additional contacts for crew will be obtained from these initial interviews with the captains, as well as by canvassing docks in each port to locate and recruit other potential respondents. Canvassing for non-referred captains and crew will be structured such that a representative cross section of hired labor that inhabits each area associated with the pre-scheduled dealer interview will be intercepted. When canvassing ports for intercept interviews, we will visit each port at a different time (e.g., morning, evening) on multiple days to control for bias. Nearby ports will be randomly selected with probability proportional to the number of vessels landing GT-IFQ species categories (e.g., gag, red grouper, deep water grouper, shallow water grouper, and tilefish) at local dealers relative to the fishery as whole. Since the grouper-tilefish industry is heavily concentrated in West Florida, we expect that this strategy will provide access to at least 30% of the captains and crew in the fishery. Our goal is to achieve an unweighted response rate of 70%, resulting in approximately 210 completed surveys or sufficient partials. Although the anticipated amount of completed surveys is approximately 20% of our population of interest, given the geographic concentration of the fishery in west Florida and the lack of a Federal permit data base for hired labor in the Gulf of Mexico, we believe that referrals from dealers and a structured intercept

¹ IFQ programs provide fishermen with an exclusive harvesting privilege, which permits them to land a share of the total allowable quota. Granting a secure harvesting privilege mitigates the race to fish because fishermen no longer have to compete for a share of the stock. Thus, fishermen can devote their efforts to maximizing profits by harvesting, processing, and marketing their catch more efficiently. Depending on the characteristics of the program, shares may be sold or leased among fishermen. The presence of transferable privileges allows the creation of a market, where trading can take place. In well-behaved markets, privileges will gravitate towards the most efficient producers; thereby, allowing the less efficient producers to exit the fishery with some compensation.

methodology for canvassing for other captains and crew is the best way to achieve a representative sample.

Since captains and crew are not permitted in the Gulf of Mexico reef fish fishery, we do not have a readily available list of the population of respondents to sample. We believe dealer referrals and random intercepts are the most practical methodology to minimize possible sample bias. The 20 dealers to be interviewed in person for the dealer survey will provide access to approximately 60% of the vessels that fish for grouper or tilefish species in the Gulf of Mexico, representing 85% of total landings. A random selection of other dealers nearby to obtain additional referrals for the captains and crew survey will further enhance the representativeness of the sample.

The data collection is necessary to satisfy the requirements of the MSRA (16 U.S.C. 1853a *et seq.*), which mandates that LAPPs submitted by a Council or approved by the Secretary shall “include provisions for the regular monitoring and review by the Council and the Secretary of the operations of the program, including determining progress in meeting the goals of the program and this Act, and any necessary modification of the program to meet those goals, with a formal and detailed review 5 years after the implementation of the program, and thereafter to coincide with scheduled Council review of the relevant fishery management plan (but no less frequently than once every 7 years).”

Moreover, the MSRA states that collection of reliable data is essential to the effective conservation, management, and scientific understanding of the fishery resources of the United States. The nation's fisheries should be "conserved and maintained so as to provide optimal yield (OY) on a continuing basis." Furthermore, the MSRA requires that fishery management plans include a Fishery Impact Statement (FIS), which assesses, specifies, and describes the likely effects of the conservation and management measures on participants in the fisheries being managed, fishing communities dependent on these fisheries, and participants in fisheries in adjacent areas.

Additionally, Amendment 29 to the Gulf of Mexico Reef Fish Fishery Management Plan (FMP), which in 2010 implemented the GT-IFQ Program to reduce overcapitalization and the incentives for derby fishing conditions, mandates a 5-year review of the IFQ program. The Gulf of Mexico Fishery Management Council (GMFMC) is expected to complete its 5-year review of the GT-IFQ Program in 2016 to meet the MSRA requirements. The proposed data collection will provide vital information to assess the economic effects of the IFQ program on hired captains and crew, fishing communities, and the nation as whole. Presently, few data are collected concerning hired captains and crew in the GT-IFQ fishery, limiting the NMFS' ability to assess the full impacts of the program. At the trip-level, logbook forms collect information on the number of crew employed on each trip and a 25% sample of trips reports the total payment to hired crew and captain. Each year, a 25% sample of vessels reports total annual payments to hired captains and crew as well as how labor payments are determined and distributed. The proposed survey will provide important supplemental information to assess more fully the socio-economic consequences of the GT-IFQ Program on hired labor.

In addition to the needs of the MSRA and Amendment 29 to the Reef Fish FMP, the [Regulatory Flexibility Act](#) (RFA, 5 U.S.C. 601 *et seq.*), the [National Environmental Policy Act](#) (NEPA, 42 U.S.C. 4372 *et seq.*), and [Executive Order \(EO\) 12866](#) also require socio-economic data collections. Under the RFA, the Small Business Administration needs a determination of whether

a proposed rule has a significant impact on a substantial number of small entities that are to be directly regulated. For RFA purposes, one of the criteria to determine significant economic impact involves an assessment of the change in short-term accounting profits for small entities. The NEPA requires a determination of whether Federal actions significantly affect the human environment. This requires a number of economic analyses including the impact on entities that are directly regulated and those that are indirectly affected. Lastly, EO 12866 mandates an economic analysis of the benefits and costs to society of each regulatory alternative considered by the fishery management councils, and a determination of whether the rule is significant.

In addition to satisfying the needs of statutory requirements and pending regulations, fishery management councils' interest in expanding IFQ programs into other fisheries offers a unique opportunity to learn from the experience of the GT-IFQ Program. For example, the GMFMC is interested in expanding their use into other components of the reef fish and mackerel fisheries, and the South Atlantic Fishery Management Council (SAFMC) is considering their use in the snapper-grouper and mackerel fisheries. Since most IFQ programs in the U.S. are relatively new and differ widely in their characteristics and impacts, a careful review of existing programs will assist in the adjustment of changing or unforeseen circumstances and will also aid in the planning and design of new programs.

2. Explain how, by whom, how frequently, and for what purpose the information will be used. If the information collected will be disseminated to the public or used to support information that will be disseminated to the public, then explain how the collection complies with all applicable Information Quality Guidelines.

The proposed data collection will be conducted primarily via voluntary in-person interviews. Some telephone interviews may be conducted with captains or crew for whom an in-person interview is not convenient. Contacts with captains will be established prior to (from dealer referrals) and during visits to the 20 dealers in the survey area (Texas through West Florida) as part of a concurrent survey of Federally-licensed dealers participating in the GOM reef fishery. Interviewers for the dealer survey will also canvass nearby ports to obtain additional contact information for local captains. Nearby ports will be randomly selected with probability proportional to the number of vessels landing GT-IFQ species categories (e.g., gag, red grouper, deep water grouper, shallow water grouper, and tilefish) at local dealers relative to the fishery as whole. Crew interviews will be obtained by asking captains for referrals, or by approaching crew on the dock as they unload catch. Interviewing will take place during Summer 2016.

The information sought will be utilized for descriptive and analytical purposes. Social scientists from the NMFS will create descriptive reports of the hired labor sector and develop statistical models to evaluate the socio-economic impacts of the GT-IFQ Program. Statistical models will include globally used summary statistics, such as median and mean values, hypothesis testing for differences in proportions for "yes/no" questions, and two-tailed t-test to examine differences in group responses². Socioeconomic impacts of the GT-IFQ Program will be estimated using multinomial logit models³. Logit models measure the effect of independent variables, such as days fished or opinions on the IFQ program, on qualitative outcomes such as plans to acquire additional IFQ shares. Logit models will be fit using standard statistical packages such as

² Tokotch, Britni N., Meindl, Christopher F., Hoare, Armando, and Jepson, Michael E. 2012. Stakeholder Perceptions of the northern Gulf of Mexico grouper and tilefish individual fishing quota program. *Marine Policy*. V36(1):34-41.

³ Smith, Martin D. Bioeconometrics: Empirical modeling of bioeconomic systems. 2008. *Marine Resource Economics*. V23(1):1-23.

STATA, LIMDEP or SAS. These products will be used to support the GMFMC's pending 5-year review of the IFQ program. In addition, the information collected will be used for the development of natural resource plans. The survey will collect economic and attitudinal information, which otherwise would be unavailable. The data will also be used by the academic community studying the performance of LAPPs.

QuanTech, Inc., of Rockville MD has been contracted to conduct a one-time data collection through a subcontract with ECS Federal on NOAA Contract No. EA-133F-14-BA-0013. The proposed questionnaire was developed in consultation with Dr. Jacob LaRiviere of the University of Tennessee, industry experts and NMFS staff. The proposed questionnaire will collect employment, income and attitudinal information from past and present captains and crew on their experiences with IFQs. This data collection effort will be conducted using in-person interviews as far as possible; some telephone interviews may be conducted with respondents who are not available for an in-person interview. The title of the survey is "Economic Survey of Gulf of Mexico (GOM) Captains and Crew Associated with the GOM Grouper-Tilefish Individual Fishing Quota Program."

The survey instrument (questionnaire) has five sections: 1) screening questions, 2) introduction, 3) before and after GT-IFQ and other employment, 4) socio-demographic, and 5) debriefing and comments.

Section 1: The 'screening questions' are used to establish eligibility for the survey and determine a 'survey path' since the questionnaire contains skip patterns to follow depending on responses to these questions. Specifically, the questions determine if the potential respondent has ever been employed as a hired captain or crew on a commercial fishing boat, and if so, if they ever fished for grouper or tilefish in the Gulf of Mexico. If the respondent has ever been employed on a commercial fishing vessel but never fished for grouper or tilefish in the Gulf of Mexico, sections 2 and 3 will be skipped.

Section 2: The 'introduction' section informs the respondent of the following: "This survey is commissioned by the National Marine Fisheries Service (NMFS) to identify how catch shares in the reef fish fishery of the Gulf of Mexico (GOM) have affected hired captains and crew. QuanTech is interviewing Gulf of Mexico fishermen who fished at any point before or after implementation of the catch share or "IFQ" fishery management programs. The NMFS is interested in opinions about safety, incomes, attitudes and several other factors of those that still fish for reef fish species, those that have left those particular fisheries, and those who've left commercial fishing altogether. The results will be carefully examined by managers with a goal of better execution and implementation of management of fisheries in the United States. This survey is voluntary. Individual responses will not be released by NMFS."

Section 3: The 'before and after GT-IFQ and other employment' section first asks if the respondent worked on any commercial vessels in the Gulf of Mexico that landed any of the GT-IFQ managed species (i.e. gag, red grouper, other shallow water groupers, deep water groupers, or tilefishes) *before* GT-IFQ implementation. The section also contains a question to determine if the respondent worked on any commercial vessels in the Gulf of Mexico that landed any of the GT-IFQ managed species *after* GT-IFQ implementation. The section asks if respondents worked mostly as a captain or as a crew member as well as which primary fishing gear type was used to fish for GT species before and after GT-IFQ Program implementation. A set of questions asks

whether 1) the number of vessels targeting GT species that the respondent worked on in a typical year increased or decreased; 2) the number of days fishing for each of the GT species increased or decreased; 3) the number of crew that the respondent worked with increased or decreased; and 4) the number of days per year the respondent worked outside of commercial fishing increased or decreased. The remaining questions ask respondents to indicate if they believe the following have increased or decreased: 1) safety on GOM commercial GT trips; 2) availability of work in the GT fishery; 3) ability to get along with crew on the same vessel; 4) ability to get along with crew on other vessels; 5) choices for employment; 6) ability to switch and work on a different vessel; and 7) personal satisfaction from fishing itself. At the end of this section, questions are asked to determine if remuneration was affected by the IFQ program. The information in this section is intended to aid in the determination of social and community impacts resulting from the GT-IFQ Program for the planned 5-year program review.

Section 4: The ‘socio-demographic’ section is designed to collect social and demographic information from fishermen. Demographic questions about age, income, marital status, etc., are asked. The information in this section intends to aid in the determination of social and community impacts associated with hired commercial fishing labor.

Section 5: The ‘debriefing and comments’ section is designed to collect recommendations for changing the GT-IFQ Program or comments on anything else about commercial fishing or the questionnaire. Interviewers may paraphrase responses in this section.

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. NOAA Fisheries Service will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for confidentiality, privacy, and electronic information. See response #10 of this Supporting Statement for more information on confidentiality and privacy. The information collection is designed to yield data that meet all applicable information quality guidelines. Prior to dissemination, the information will be subjected to quality control measures and a pre-dissemination review pursuant to [Section 515 of Public Law 106-554](#).

3. Describe whether, and to what extent, the collection of information involves the use of automated, electronic, mechanical, or other technological techniques or other forms of information technology.

The proposed data collection will be conducted primarily via voluntary in-person interviews using a Computer-Assisted Personal Interviewing (CAPI) system on a Nook Simple Touch™ tablet. Some telephone interviews may be conducted with captains or crew for whom an in-person interview is not convenient; telephone interviews will be conducted using the CAPI system as a Computerized Telephone Interviewing (CATI) system.

4. Describe efforts to identify duplication.

We are not aware of other federal or state efforts to collect similar socio-economic information from participants in the Gulf of Mexico GT-IFQ Program. However, researchers from the University of Florida (UF) conducted interviews with Gulf of Mexico reef fish commercial fishermen in 2014 for a study to examine social networks. The UF study did not collect the same type of information as our survey although some captains and crew may have been asked to

participate in both endeavors. Our proposed data collection focuses specifically on the grouper-tilefish dealer component of the reef fish fishery as part of an ex-post evaluation of the GT-IFQ Program, which is required by MSRA statutes.

To minimize the potential of duplicate data collections, we informed industry representatives from the grouper-tilefish component of the reef fish fishery, the NMFS' SERO, several universities in the southeast region, and the GMFMC about our upcoming data collection. The membership of the GMFMC is made up of representatives from all Gulf States resource management agencies.

5. If the collection of information involves small businesses or other small entities, describe the methods used to minimize burden.

Many commercial fishing operations are owner or family-operated small businesses. We have taken several steps to minimize the burden to these small businesses. First, we designed the survey instrument so that only the minimum data requirements for present and future management needs are collected. Second, responses to the survey will be voluntary. Captains or crew who do not wish to participate in the survey may decline to be interviewed. Third, in-person surveys will be conducted at times and places that are convenient to respondents. Also, telephone interviews will be scheduled/conducted with respondents for whom an in-person interview is not convenient. This will minimize any potential disruption to fishermen's fishing practices.

6. Describe the consequences to the Federal program or policy activities if the collection is not conducted or is conducted less frequently.

If these data are not collected, the legal requirements set forth by the MSRA, NEPA, and EO 12898 would not be met. For example, the MSRA requires a formal and detailed review 5 years after the implementation of the IFQ program. The review conducted by the GMFMC and Secretary of Commerce must determine whether the program is satisfying the stated goals in the FMP. If current and accurate data are not available then social and economic assessments of management actions will be potentially inaccurate, thereby leading the GMFMC and NMFS to make poor management decisions. The MSRA requires the establishment of conservation and management measures to protect the resource, increase social and economic benefits, and increase safety using the best available scientific information.

Moreover, the GMFMC's interest in expanding IFQ programs into other fisheries managed under its authority offers a unique opportunity to learn from past design and implementation mistakes and successes. The GMFMC is interested in expanding their use into other components of the reef fish and mackerel fisheries. Similarly, the SAFMC is exploring their use in their snapper-grouper and mackerel fisheries. Since most IFQ programs in the U.S. are relatively new and differ widely in their characteristics and impacts, a careful review of existing programs will assist in the adjustment of changing or unforeseen circumstances and will also aid in the planning and design of new programs. Lastly, an unintended consequence of not having the appropriate socio-economic data could be court challenges on the grounds of inadequate analysis as occurred in the South Atlantic summer flounder case (e.g., North Carolina Fisheries Association vs. Daley).

7. Explain any special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

There are no special circumstances that require the collection to be conducted in a manner inconsistent with OMB guidelines.

8. Provide information on the PRA Federal Register Notice that solicited public comments on the information collection prior to this submission. Summarize the public comments received in response to that notice and describe the actions taken by the agency in response to those comments. Describe the efforts to consult with persons outside the agency to obtain their views on the availability of data, frequency of collection, the clarity of instructions and recordkeeping, disclosure, or reporting format (if any), and on the data elements to be recorded, disclosed, or reported.

A Federal Register Notice published on Tuesday, March 24, 2015 (Vol. 80, No. 56, p. 15564) solicited public comment. No comments were received.

Results of consultations with persons outside the agency:

In 2015, a series of exchanges were conducted between QuanTech, Dr. LaRiviere and industry representatives to obtain their views on the clarity of the instructions and data elements to be recorded. Moreover, the survey was pre-tested by eight industry representatives.

9. Explain any decisions to provide payments or gifts to respondents, other than remuneration of contractors or grantees.

No payments or gifts will be provided to questionnaire respondents.

10. Describe any assurance of confidentiality provided to respondents and the basis for the assurance in statute, regulation, or agency policy.

Survey respondents will be advised that the contractor will only share the data with NMFS and the data will only be released by NMFS in aggregate form. The contractor's business and information security practices will protect personal or business identifying information. The contractor requires that data are only shared internally among the contractor's authorized personnel and with NMFS. All data with personal or business identifying information will be protected on the contractor's Local Area Network (LAN). External access to the LAN is limited to the contractor's secure Virtual Private Network (VPN). The VPN has controls requiring independent and unique usernames and passwords before allowing access to the LAN.

Unauthorized persons asking for data from the survey from the contractor will be directed to contact NMFS. Whenever data are requested, the Agency will ensure that information identifying the pecuniary business activity of a particular individual is not identified. Only group averages or group totals will be presented in any reports, publications, or oral presentations of the study's results.

11. Provide additional justification for any questions of a sensitive nature, such as sexual behavior and attitudes, religious beliefs, and other matters that are commonly considered private.

No questions will be asked about sexual behavior and attitudes, religious beliefs, or other similar matters of a personal and sensitive nature.

12. Provide an estimate in hours of the burden of the collection of information.

It is estimated that the number of respondents will be no more than 210 and the time per response will be approximately 30 minutes, for a total burden of 105 hours. The 30 minutes per response burden is an estimate of the time to complete an in-person interview on the tablet or similar interview conducted over the phone. This estimate is based on the type of questions asked, length of the survey instrument, and the contractor's past experience conducting similar surveys.

13. Provide an estimate of the total annual cost burden to the respondents or record-keepers resulting from the collection (excluding the value of the burden hours in Question 12 above).

There will be no financial cost to the public to participate in this study, only the cost of their labor.

14. Provide estimates of annualized cost to the Federal government.

A contract in the amount of \$103,097.94 was awarded to ECS Federal. ECS Federal contracted QuanTech for the development of the survey instrument, training interviewers, programming the CAPI system, data collection and processing, quality control, and supervision. Additional federal costs include the time of NMFS staff. The NMFS staff will be responsible for developing and administering the contract, collaborating with the development of the survey, and reporting the results. The cost of NMFS staff time is estimated at \$18,000. Thus, the total annualized cost (over the 3-year approval period) to the federal government would be \$40,365.98.

15. Explain the reasons for any program changes or adjustments.

This is a new collection of socio-economic data.

16. For collections whose results will be published, outline the plans for tabulation and publication.

The data collected will not be available to the public over the internet. However, analytical results of studies based on this data will be disseminated to management agencies and peer-reviewed publications. Some of these studies will likely be available online.

Data collected will be used in the 5-year program review of the GT-IFQ Program. Descriptive and analytical reports will include summaries of data. These reports will not release or reveal individual responses. Depending on the availability of funds, we anticipate that reports will be

available by December 2016. These reports will likely be available in *pdf* format on the Southeast Fisheries Science Center's (NOAA Fisheries) web sites.

17. If seeking approval to not display the expiration date for OMB approval of the information collection, explain the reasons why display would be inappropriate.

The OMB control number and expiration date will be displayed.

18. Explain each exception to the certification statement.

There are no exceptions to the certification statement.