

**SUPPORTING STATEMENT
SOUTH ATLANTIC COMMERCIAL SHRIMP FISHERY
ECONOMIC & DEMOGRAPHICS SURVEY
OMB CONTROL NO. 0648-0369**

Introduction

The following is the supporting statement for the Paperwork Reduction Act submission for the approval to collect economic and demographics data from South Atlantic commercial shrimp fishing enterprises based in North Carolina, South Carolina, Georgia, and the east coast of Florida. The proposed data gathering will be an annual and continuous data collection program.

During the first year only, for North Carolina, South Carolina, Georgia, and the east coast of Florida, this survey is requesting data for two years, 2000 and 2003. The latter year (2003) is the most recent year which we can request information, and anecdotal information suggests that 2003 was likely one of the worst years for this fishery economically, and this survey will provide the data to verify whether this was the case. Conversely, the year 2000 was one of the best years during the last decade in terms of economic performance. Production levels were high and prices maintained their levels, even with higher production. Thus, comparing data from these two years will help to determine which factors have been most influential in causing erosion in profitability. In the future, annual assessments are needed to account for such impacts, and the causes and sources of overall trends in cost and revenue data. In subsequent years, only the most recent completed year for information will be requested.

Justification

Explain why you need to conduct the information collection.

The collection of economic and social information from fishermen and fishing businesses affected by the management of federal commercial fisheries on the South Atlantic coast is needed to ensure that national goals, objectives, and requirements of the Magnuson-Stevens Fishery Conservation and Management Act (MFCMA), National Environmental Policy Act (NEPA), Regulatory Flexibility Act (RFA) and Executive Order 12866 (EO 12866) are met. This information is vital in assessing the economic and social effects of fishery management decisions and regulations on individual fishing enterprises, fishing communities, and the nation as a whole.

Social and economic information on commercial fishing enterprises is vital to the Optimum Yield (OY) management of marine fishery resources as mandated under the MFCMA (16 U.S.C. 1802 M-S Act § 3). The term "Optimum" is defined under section 104-297 (28) of the Act, as: (A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems; (B) is prescribed as such on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant economic, social, or ecological factors; and (C) in the case of an over-fished fishery, provides for the rebuilding to a level consistent with producing the maximum sustainable yield in such a fishery.

The overall goal of this project is to collect up-to-date cost, revenue, and social data for this significant fishery. National Standard Guidelines for social and economic information needs are mandated in 50 CFR 600. Additionally, recent legal decisions ruled against DOC, NOAA, NMFS based on the lack of social and economic information or the inadequate analysis of existing data. Thus, it is imperative that these data be collected to accurately assess the economic and social impacts on individual shrimp fishing entities as imposed by shrimp fishery management plans and regulations. Most important, the fishing industry has been calling for the inclusion of social and economic data in the formation of fishery management plans.

It is intended that after the survey has been conducted at least once in each of the South Atlantic states, a review of the success of the survey document will be conducted, any recommended changes or modifications will be made, and the data collection effort will evolve into an on-going annual survey effort. Regular surveying is necessary to capture critical cost and revenue data that fluctuate from year to year. Fluctuations are generally due to annual fluctuations in shrimp abundance caused by environmental factors. Additionally, markets for South Atlantic shrimp are exhibiting fluctuations as farm-raised and imported shrimp (both wild caught and farm-raised) are becoming more readily available at lower prices.

This study will be conducted by contract under the auspices of the Fisheries Economics Office within the Southeast Regional Office of NOAA Fisheries.

NOAA Fisheries currently collects limited information from commercial vessels pertaining to their fishing activities, trip dates, landings, and other information through port agents and mandatory dealer reports. There are no substantial social or economic data collected in these systems other than the value of landings, which is neither consistently complete, nor detailed at the individual vessel level. The information is not comprehensive enough for full economic and social analysis.

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.

Social and economic data will be collected from shrimp vessel owners who operate offshore and have primarily landed their catch in one of the four South Atlantic states: North Carolina, South Carolina, Georgia, and the east coast of Florida. This survey has already been implemented in the Gulf of Mexico and is being conducted by a NOAA Fisheries contractor using initial face-to-face interviews of vessel owners (or their designee) who are randomly chosen to participate. The Gulf survey effort is instructing how it will be implemented in the South Atlantic.

NOAA Fisheries economists and social scientists will use the information collected during this study to evaluate and modify future ongoing social and economic surveys. The analysis of the sources of variation in costs and revenue during this study will allow future social and economic surveys to be more efficient based on improved stratification and survey designs. Additionally, this first year of this program in the South Atlantic will provide an in-depth assessment of the study instrument and interview process.

These data will play an integral role in the social and economic analyses needed for determining the significance of economic impacts on small entities, as required by the Regulatory Flexibility Act

and to determine how best to achieve the maximization of net benefits to society, as required by E.O. 12866. Statistical models that predict or forecast various characteristics such as fleet size, fishing activity or effort, costs versus benefits of fishing, market activity, and efficiencies of proposed fishing regulations will be just a few of the benefits and uses of these data.

Gross revenues and costs can vary within a year, and even within or across seasons/trips, as a result of changes in a number of different factors, including fishery management regulations (e.g. gear modifications, time/area closures, etc.), fluctuations in abundance (due to changes in various environmental factors), and market conditions (such as fuel or seafood prices). In recent years, there have been great changes in the shrimp fishery with respect to regulations, primary ports of operation, and gear construction, among other factors, yet the social and economic impact of these changes has not been directly assessed. As described in the introduction, during the first year only, this survey is requesting data for two years, 2000 and 2003 for North Carolina, South Carolina, Georgia, and the east coast of Florida. Additionally, anecdotal information suggests that 2003 was likely one of the worst years for this fishery economically, and this survey will provide the data to verify whether this was the case. Some of the potential causes for the downturn have been attributed to prices falling; increases in insurance premiums following September 11, 2001; and rising fuel costs. Conversely, the year 2000 was one of the best years during the last decade in terms of economic performance. Production levels were high and prices maintained their levels, even with higher production. Thus, comparing data from these two years during the first year will help to determine which factors have been most influential in causing erosion in profitability. In subsequent years, only the most recent completed year for information will be requested.

It is anticipated that the information collected by this survey will be disseminated to the public (such as through an annual economic report) or used to support publicly disseminated information. Data may be reported for various groups of fishermen (by vessel size, port, etc.), which will allow vessel owners to compare and evaluate their operations relative to others in the same group in terms of ability to generate revenues, cost efficiency, and profitability.

As will be explained in greater detail in the following paragraphs, the information gathered has utility. NOAA Fisheries 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. All data that are submitted are treated as confidential in accordance with NOAA Administrative Order 216-100 and the Magnuson-Stevens Act (16 U.S.C. 1881a, M-S Act § 402(b), Confidentiality of Information). This 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.

The following is a detailed description of justifications for the collection of these data. Section and question numbers refer to the study instrument.

Justifications for Socioeconomic Survey Questions

The Contractor will provide a copy of the survey instrument to each potential respondent in advance of the interview. This will allow respondents to compile the necessary information, thereby minimizing bias due to recall error. It is expected to also increase the efficiency of the interview process with respect to administrative time and costs.

Contact Document

A 'Contact Document' was developed to log all contact or attempts at contact by each individual involved in conducting the surveying. It identifies the person to be interviewed as the vessel owner, or his/her designee; corrects any necessary contact information in case there is a need to follow up with respondents; logs the time and date of all contact including the interview time and date; and provides space for any additional comments the vessel owner/designee may wish to share with the Contractor or NOAA Fisheries.

SECTION I. Fishing Operations and Costs

In general, this section of the survey instrument asks questions pertaining to the annual total of variable costs, fixed costs, other annual costs, capital investment in the vessel & equipment, business arrangements such as ownership and crew shares, and other production factors. Data resulting from Section I questions are generally necessary to generate cost, profit, input demand, and production functions. Such functions and the results generated from their estimation are typically used in financial analyses (used to determine a business' cost efficiency and profitability), economic impact analyses (used to determine the economic value of a particular activity to a particular locale, community, or region), bioeconomic models (used to predict how the biological and economic components of a fishery will respond to exogenous shocks, such as policy changes), cost-benefit analyses (used, in part, to determine the net economic benefits of a particular action), and behavioral models (such as those that explain or predict exit or entry decisions and decisions regarding spatial or temporal allocation of effort). These data can also be used to determine the relative efficiency of the various participating vessels in a fishery and thus whether the aggregate harvesting costs are in fact being minimized. Such models and analyses are critical to guiding fisheries management decisions whose general purpose is to maximize net national benefits and optimally distribute those benefits.

Data is being requested for both the 2000 and 2003 shrimp season. Anecdotal information suggests that the most recent year for which we can collect data, 2003, was one of the worst for this fishery due to depressed market prices for South Atlantic shrimp, the high influx of less expensive imported product, increases in insurance premiums following Sept. 11, 2001, and rising fuel costs. Conversely, the year 2000 was one of the best years during the last decade in terms of economic performance. Production levels were high and prices maintained their levels, even with higher production. Thus, comparing data from these two years will help to determine which factors have been most influential in causing erosion in profitability and will help to determine the actual impact that imported product has had on U.S. South Atlantic shrimp fishermen. In the future, annual assessments (after additional OMB approval) are needed to account for all impacts and the causes and sources of overall trends in cost and revenue data.

Part 1, Vessel information

Question 1.1 verifies who is being interviewed, the vessel name, US Coast Guard documented number, total landings, if landings are measured as "head on" or "head off," and total gross revenues for two years. This information will allow NOAA Fisheries to link this vessel information with other pertinent data, such as permit and catch information, located in other datasets. Landings and gross revenues are being requested to provide complete data at the individual vessel level. Although these data are collected by other means, it is not consistently complete or detailed at the individual vessel level.

Question 1.2 asks which port/state the vessel owner considers the base of the vessel's operations. This port may be different than the port(s) where primary landings may occur, but is likely the port where provisioning, maintenance and other cost-related activities occur.

Questions 1.3-1.5 inquire about where fishing activity occurred (in the EEZ or not), how many shrimp fishing trips and fishing days were taken inshore and offshore, and how many days at sea were related to activities other than shrimp fishing. This provides information about the average length of trip and how many days of fishing occurred during a calendar year, and will help to determine which fishermen are full time participants, which are part time, the level of dependency that each has on this fishery, and the potential impacts that regulations may have on them.

Questions 1.6-1.10 attempt to discern the amount of financial capital that has been invested in the vessel and the current value of that capital. This information can be used to estimate various rates of return on the owner's investment. The expected rate of return is a critical factor in the owner's decision to invest further in the vessel, and whether to remain in the fishing industry. Levels of net investment should be indicative of the industry's economic health (i.e. negative net investment indicates an industry in decline). Further, profitable vessels should be associated with higher levels of investment. Similarly, comparisons of the original purchase price and current market value should also be indicative of trends in the industry's health. The current market value of capital can also be considered an input in the production process.

Questions 1.11 -1.12 collect information pertaining to costs related to vessel haul-outs, hull repair and maintenance. Since vessels may not be hauled out once each year, we ask for the number of years between haul-outs (that is, to fill in "once every (blank) years").

Part 2, Major Mechanical Systems

This question will gather information on the capital investment of the engines, reduction gear, generators, compressors, and chargers used on the vessel, as well as fixed annual costs such as overhauling or replacement costs. Engine characteristics affect how fishermen can and do use their vessels and the related direct costs, such as fuel use, which affects level of production, revenues, and profitability associated with the vessel's operations. In addition, the engine make and model information will be useful in comparing fuel use, overall costs, and other engine characteristics with databases maintained by engine manufacturers.

Part 3, Trawl Gear Information

Questions 3.1 - 3.2 request information regarding the capital investment of the specific trawl gear used; types and number of nets, doors, and cables used or kept on board ready for use; replacement costs; and percent of time used; all of which will differ between individual fishermen. The detail provided in these answers is not available from alternative data sources. Gear characteristics affect how fishermen can and do use their vessels, and thus the costs, level of production, revenues, and profitability associated with the vessel's operations.

Question 3.3 specifically identifies what type of Bycatch Reduction Devices (BRDs) are in use on the vessel, how frequently, and their average costs. This information will help to assess the socioeconomic impacts of BRD regulations on individual fishing enterprises and fishing communities, and has not been gathered before.

Question 3.4 specifically identifies the type and number of Turtle Excluder Devices (TEDs) which are in use on the vessel (if multiple ones are used). By region, TED regulations specify minimum sizes and types that can be used, but not maximum sizes. Information about the types of TEDs actually in use will help to assess the socioeconomic impacts of federally-mandated TED regulations on individual fishing enterprises and fishing communities, especially in light of recent changes to the TED regulations. Not only are there direct costs associated with each type of TED, but TEDs, as with BRDs, affects the efficiency of the trawl gear in terms of its ability to catch shrimp, and thereby reduces catch per unit of effort (CPUE) and/or increases the cost per unit effort, resulting in reduced profitability. Information on the relative performance of alternative TEDs and BRDs will be useful to both managers and fishermen.

Part 4, Electronics

Questions 4.1-4.2 will gather information regarding capital investments for all on-board electronics, and replacement costs of those electronics. These questions attempt to discern the amount that has been invested in on-board electronics and expected future investments in on-board electronics. Expected future levels of investment in on-board electronics compared to the past investment in on-board should be indicative of the industry's economic health. Further, profitable vessels may be associated with higher levels of investment in on-board electronics. This is a testable hypothesis. Other research has shown that a certain level of experience or combination of experience and technology is more important than technology alone. On-board electronics affect how fishermen can and do use their vessels, and thus the costs, level of production, revenues, and profitability associated with the vessel's operations.

Part 5, Annual and Variable Costs

This subsection of the survey instrument asks questions pertaining to annual total of non-labor variable costs (fuel, oil, food), some fixed costs (e.g. insurance, costs of leases adjacent to docks), labor costs (**Questions 5.5 and 5.6**), and other costs germane to vessel's profitability (e.g. return to investment) and cash flow. These questions can be used to construct input demand function, cost functions, and production functions, all of which are needed to conduct the types of analyses mentioned previously.

Questions 5.1 - 5.4 pertain to the three types of non-labor costs (fuel, oil, and food) associated with the annual number of trips by a given vessel. They are generally related to or a function of the annual level of fishing effort. Fuel costs are a substantial variable cost for trawl fisheries. For fuel, we are also requesting information on the annual average quantity of the fuel purchased and the average price per gallon. Both fuel quantities and prices are requested since total annual costs can change due to a change in quantity purchased *or* the price per unit, and this may affect level of production. These costs may also be influenced by location, since these vessels operate out of multiple states in the South Atlantic region.

Questions 5.5 - 5.7 are meant to obtain total annual payments to the captain and crew, as well as payroll taxes for the total labor expense. This information will also be used with the information obtained through Question 7.4, which asks about the crew and captain share system. These payments basically represent the flow of annual income to the crew members and captains associated with the vessel. From the captain and crew's perspective, their share of the vessel revenues determines the incomes of their respective households. Changes in annual income received can affect the captain's and crew members' decisions to continue working in this particular

fishery, and/or in fishing as a vocation. These data will allow analysts to determine how various factors, such as changes in regulations, may affect the incomes of crew.

Question 5.8 collects information on all types of insurance, related to the vessel, and health benefits. These are fixed costs, that, when incurred, are paid regardless of whether the vessel is used or not, or generates any revenue. These costs are borne entirely by the owner. The lack of hull and other related vessel insurance could be indicative of the industry's economic health. If sufficiently high, vessel owners may choose not to carry full hull or P&I insurance, and thus put their business at risk. Further, health insurance is a type of compensation, and the presence or the lack thereof is a non-economic social aspect of the human environment.

Questions 5.9 - 5.12 relate to non-labor, annual costs associated with docking or mooring arrangements, utilities while at the dock and miscellaneous hardware (e.g. cables, ropes, etc.). These costs vary across time and vessels and are typically reported on an annual basis.

Questions 5.13 - 5.15 ask for annual costs associated with repair and maintenance of the vessel, gear, and electronics, but exclude replacement costs such as for new trawl doors or nets, since these are covered in Parts 3 and 4 and are part of the capital investment. Question 5.15 asks for costs that may occur annually and is different than the costs requested in Question 1.11, which are costs that are not typically incurred every year.

Question 5.16 asks for annual depreciation charges and the type of depreciation method used. Depreciation expenses can be calculated in many ways, according to the different accounting methods. These expenses may or may not be relevant depending on the type of analysis being conducted. For example, they may be relevant in determining the net returns to a vessel, but they are not relevant in a cash-flow analysis.

Questions 5.17-5.23 ask for other costs that are basically fixed, since they do not vary according to the level of fishing activity. These costs are paid regardless of whether the vessel is used or not, or has generated revenue, and are borne entirely by the owner. If sufficiently high, fixed costs can affect the probability of entry and exit into and out of a fishery.

These questions collect information on various federal, state, and local fees (**5.17**); property tax paid related to this particular fishing vessel (**5.18**); professional service (i.e. legal, accounting, association dues; **5.19**); and vessel management fees (**5.20**), and vehicle expenses associated with the fishing operation including vehicle repairs, depreciation and fuel (**5.23**). **Questions 5.21 and 5.22** gather information about annual payments on long term, short term, and operating loans. **Question 5.21** asks for the combined principal and interest paid, rather than breaking it down. In terms of cash flow and profitability, loan payments, as a fixed cost, can be critical to annual financial performance of the vessel operation. In addition, loan interest rates can be critical component to cross-sectional financial ratio analysis (e.g. interest expense ratio) with a fishery and between fisheries.

Questions 5.24 & 5.25 asks for annual totals of variable costs associated with the cooling and/or freezing of the vessel's catch. For ice, we request information on the quantity purchased, the average price per unit, and the unit in which the input was purchased (blocks, bars or pounds). Ice quantities and prices are requested since total annual costs can be a substantial variable cost in warm-water shrimp trawler fisheries and is dependent upon the level of fishing activity. Likewise, the cost of

salt and other freezing supplies for freezer-trawlers is dependent upon the level of fishing activity. Similar to fuel questions, these pieces of information can be used to construct input demand functions, cost functions, and production functions. Furthermore, the use of ice vs. freezing systems, as the predominant method for preserving a trawler's catch, may be associated with vessel size, mobility, duration of trips, and geographical range of a given vessel, each of which affects the vessel's fishing capability. Additionally, shrimp fishermen may convert storage methods between ice and freezers, which are considered more versatile. The large freezers used on shrimp vessels allow shrimp fishing at greater distances from shore, and therefore provides access to deeper-water shrimp species. In contrast, ice storage takes up less space on board, but requires vessels to stay closer to shore. As with fuel usage/capacity, these data are needed to partition the fleet for economic and management assessments of shrimp fleet harvest capacity and efficiency.

Collection of this information annually is of great benefit, since compilation of a historical database of these parameters will allow for trends to be assessed to individual vessels and the fleet (particularly the ratio of ice vs. freezer vessels) and its harvest capacity.

Questions 5.26 and 5.27. These questions capture any other costs not covered by previous questions.

Part 6, Net Revenues

Questions 6.1 and 6.2 relate to the annual net revenue (fishing related gross revenues minus fishing related costs) associated with shrimp and non-shrimp fishing activities (e.g. charter fishing, etc.) with which a given vessel may be involved. Net revenue is the income flowing to the vessel owner(s) and represents the income related to the owner's overall management (i.e. excluding his skills as a captain) of the vessel operation and related assets. Whether or not the owner's share of the net revenues is sufficient to cover costs and provide a reasonable rate of return on his capital investment and related management skills will affect his decisions to remain in the fishery, switch to another fishery, or exit from fishing altogether. The response will provide the researchers with an understanding of how fishermen estimate costs and revenues compared with how economists estimate it.

Part 7, Vessel Owner, Crew members and Crew Compensation

Question 7.1 requests information regarding the fishing business' form of legal organization and identifies whether the vessel is operated directly by the owner (owner-operator). Economic theory suggests that form of organization can impact who makes decisions within the fishing business, how those decisions are made, and what the goals or objectives of the fishing business might be. Further, form of organization can also impact how efficiently the fishing business operates and the extent to which it can access and obtain capital resources for investment purposes. Form of organization also has repercussions with respect to tax status and legal liability, which can in turn influence the fishing business' behavior.

Question 7.2 asks if the vessel owner owns other fishing vessels, and requests their identification in terms of vessel name and its U.S. Coast Guard or state documentation number. This information is necessary to determine whether a vessel or business is considered "small" by OMB for purposes of the Regulatory Flexibility Act.

Questions 7.3 and 7.4 ask for number of crew members used on an average trip and increases in the number of crew members if larger than normal catches are expected. The number of crew

members directly relates to one of the vessel's most important variable costs, labor, and within season changes in crew sizes is germane to estimating vessel profitability and aggregate economic impacts associated with the early stages of season and/or area openings.

Question 7.5 – 7.9 asks for details on how payments are made to crew, whether the position is paid as a percent share or piecemeal rate (per box), and whether the crew pay part of the variable trip costs. Based on these percentages, net income can be calculated using the data from other sources (landings data) which basically represents the flow of income to the various fishermen associated with the vessel. Specifically, in **7.5** we also request information regarding fishing experience, where the crew member lives, whether the crew member is also a member of the owner's family, and what their remuneration is. The question is in the form of a table to facilitate data recording and entry. We hypothesize that the crew members' particular jobs or functions on the trip (e.g. captain, deckhand, rigger, header) and their relationships to the other crew or the owner will partially affect the size of crew and the share they receive. The presence of payment differentials may serve as an incentive for crew to invest in their own human capital. That is, a beginning header may decide to stay with a particular boat or remain in fishing in general if the opportunity for advancement and higher pay is present. Further, if the crew shares are not equal, the relative impacts of potential regulatory measures will vary across different types of crew members. Familial relationships can affect how the business operates and the degree to which people are tied to each other, the industry, and the communities in which they live. The presence of familial relationships will likely affect a fisherman's willingness to continue in the fishing business. The location where crew members live is germane to estimating and predicting regulatory impacts on fishing communities. **Question 7.6** asks for the number of years that the owner has been involved in commercial fishing because it is hypothesized that the owner's experience may be partially linked to the vessel's relative profitability. **Question 7.7** asks whether any variable costs (groceries, food and ice) are deducted before shares are allocated, and additional detail on how these costs are split between the vessel owner and crew members (as percentages). This information will be necessary to accurately calculate net income. There is no other data effort that gathers information about the income accruing to individual crew members. **Questions 7.8 and 7.9** ask whether any annual bonuses were provided. The basis of the total remuneration can affect the productivity of the crew and boat.

SECTION II: Permit Holder and Crew Member Demographics

The general purpose of this set of questions is to collect data that describes the social and economic nature of fishery participants and their communities (i.e. the human environment or social system). The data can also be used to identify the various social networks to which individual fishermen belong. This information will aid in determinations of whether and to what extent fishermen are dependent on the fisheries in which they participate and to what extent they consider fishing a way of life for them and their families. Social factor analysis can reveal differential impacts across different regions, communities, and groups of fishermen (in general, different social structures) and thereby help explain their different responses to regulatory changes. Without such information and analysis, it would be impossible to render impact determinations of potential management measures, as is generally done in Social Impact Assessments, Fishery Impact Statements, and Environmental Impact Statements and Environmental Assessments. In general, this data will assist in gauging the social costs and benefits derived from a particular fishery and management thereof, which should be included in any determination of net national benefits.

Part 8, Vessel Owner Information (only)

Questions 8.1 – 8.4 ask for basic demographic information about the vessel owner (or his/her designee) such as age, level of education, marital status, and numbers of persons in their household. Demographic characteristics of the fishery work force is one social factor category necessary to conduct a proper social impact assessment. These characteristics can be used to classify fishermen into groups who are likely to share similar associations (i.e. belong to the same network or system), behaviors, and beliefs or attitudes.

Questions 8.5-8.8 will obtain information on the cultural (race) and social structure of the vessel owner and his/her family. These questions are organized as they are currently used and developed by the Census Bureau. Social factor analysis is the analytical tool used when constructing a social impact assessment. Such analysis involves the identification and analysis of social factors (such as religion), its social-cultural and community context, and its participants. Four categories of social factors have been identified by NOAA Fisheries and various academic researchers as being critical to social factor analysis. One of these categories is the cultural issues of attitudes, beliefs, and values of fishermen. **Questions 8.5 - 8.6** asks for information about the fishermen's race and primary language of communication. **Question 8.5** identifies whether the owner is of Spanish, Hispanic, or Latino ethnicity, and provides additional information regarding the ethnic composition of the "white" race within this population. Anecdotal information suggests that people of this ethnic background play a particular and important role in this fishery, particularly in South Texas communities. **Question 8.6** asks specifically about race, as it is asked in the Census. **Question 8.7** asks which language is spoken at home. As with demographic characteristics, language may be a factor that bonds or separates various fishermen. That is, these are the initial questions that attempt to obtain information on the social structure of the fishermen, their families, and the communities to which they belong. For example, those who primarily communicate in a particular language are more likely to associate and conduct business with other fishermen who do the same. In general, fishery managers need to know how prevalent language barriers are with their constituency. Lack of communication will result in poor management, or at least perceptions of poor management. Finally, a person's religion is a general reflection of some composite set of attitudes, beliefs, and values. Religion or religious affiliations (**Question 8.8**) are clearly a potentially defining characteristic of a connected group of people, or what we call a community. A common religion, or set of values and beliefs, is one factor that "connects" people. Anecdotal information suggests that, in communities where fishermen of Vietnamese descent play an important role, their respective religion affects which people, vessels, and businesses they cooperate with and associate. Knowledge of this factor could help us determine what the bounds of a particular community are, geographically speaking, and who belongs to it. We cannot identify fishing dependent communities until we first determine which groups of people constitute a community (fishing or otherwise). Once we identify these communities, and the social systems in general within which fishermen operate, we should be able to determine how changes in fishery management will affect fishermen's lifestyles, their social and interaction patterns, their choice of where to live, and in general how they will respond. In turn, those responses will have a feedback effect on the structure of the communities and social systems to which they currently belong. These are the types of impacts we are interested in when conducting social impact assessments.

Question 8.9-8.10 are designed to determine the degree to which the vessel owner (or his/her designee) and his/her family are dependent on a particular fishery or the fishing industry in general (i.e. harvest and no-harvest sectors). Dependency is mainly gauged in terms of income dependency. **Question 8.9** identifies other occupations that the particular owner is engaged, and the time of year

of that work. Not only does this identify other income sources, but from this, researchers may be able to discern if other job opportunities exist for fishermen, if particular fisheries cease to be economically sustainable for all the fishermen currently engaged in it, or if management measures lead to effort limitations. **Question 8.10** specifically asks the owner to indicate his/her household income category (categories are based on those currently used and developed by the Census Bureau). This information in conjunction with the net revenue of this vessel (**Question 6**) will enable the researcher to assess actual financial dependency on the shrimp fishery. This will allow for the distributional impacts of proposed management measures to be discerned (e.g. will a particular measure have similar or differential impacts on fishermen of different means or socioeconomic status).

Parts 10-15, Information About Crew Members (1-6)

In this last section, information will be collected on up to six (6) crew members. It is intended that this section is answered by the vessel owner, and not through an interview with the individual crew members. Due to the basic nature of the questions, many vessel owners will likely be able to answer the questions based on the existing knowledge of their crew. However, in the event that they do not, the vessel owners will be receiving a copy of the full survey document prior to the face-to-face interview, thus providing them with an opportunity to gather the information on their crew in advance.

Most of the individual questions are identical to those described in Part 8, for Vessel Owner Information (only), and have the same justification. **Question 10.1 -10.4** asks for the position of the particular crew member, in order to identify that person with their crew share and expected level of income; his/her age; marital status; and level of education.

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

Socioeconomic data has not been systematically collected by NOAA Fisheries in the past. Socioeconomic data collection efforts by individual States or Universities have been plagued by their small scope and/or their limited duration. Current economic and social data is needed for the South Atlantic shrimp fishery as a whole in order to accurately assess the positive and/or negative impacts of federal rules and regulations. Such assessments are mandated under Executive Order 12866, the Regulatory Flexibility Act, Magnuson-Stevens/Sustainable Fisheries Acts (and the National Standards attached thereto), and the Endangered Species Act, among others. Additionally, recent legal decisions against the federal government have been handed down based on the absence of social and economic data (i.e. summer flounder litigation: North Carolina Fisheries Association, et al. versus Daley - Civil Nos. 2: 97cv339; 2: 98cv606).

According to the Small Business Administration, fluctuations in short-term profitability are important in determining whether or not small businesses are forced to exit an industry. According to various lawsuits involving the shrimp industry and NMFS, industry has severely criticized the accuracy of previous social and economic analyses related to particular Council and NMFS actions. If current and accurate socioeconomic data are not available, then the social and economic assessments of management alternatives will likewise be inaccurate, thereby potentially leading the Council and NMFS to make poor management decisions. Thus, continuous data collection of cost

and earnings data are needed to satisfy these various mandates and help ensure that good management decisions are made.

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

All data that are submitted are treated as confidential in accordance with NOAA Administrative Order 216-100 and the Magnuson-Stevens Act (16 U.S.C. 1881a, M-S Act § 402(b), Confidentiality of Information).