

NOTICE OF OFFICE OF MANAGEMENT AND BUDGET ACTION

Diana Hynek 08/11/2003
Departmental Paperwork Clearance Officer
Office of the Chief Information Officer
14th and Constitution Ave. NW.
Room 6625
Washington, DC 20230

In accordance with the Paperwork Reduction Act, OMB has taken the following action on your request for the extension of approval of an information collection received on 05/15/2003.

TITLE: Commercial Harvesters and Recreational Party and Charter Boat Socio-cultural and Economic Data Collection Pilot Study

AGENCY FORM NUMBER(S): None

ACTION : APPROVED WITHOUT CHANGE
OMB NO.: 0648-0400
EXPIRATION DATE: 06/30/2004

BURDEN:	RESPONSES	HOURS	COSTS(\$,000)
Previous	2,847	793	0
New	2,847	793	0
Difference	0	0	0
Program Change		0	0
Adjustment		0	0

TERMS OF CLEARANCE: None

OMB Authorizing Official Title

Donald R. Arbuckle Deputy Administrator, Office of Information and Regulatory Affairs

PAPERWORK REDUCTION ACT SUBMISSION

Please read the instructions before completing this form. For additional forms or assistance in completing this form, contact your agency's Paperwork Clearance Officer. Send two copies of this form, the collection instrument to be reviewed, the supporting statement, and any additional documentation to: Office of Information and Regulatory Affairs, Office of Management and Budget, Docket Library, Room 10102, 725 17th Street NW, Washington, DC 20503.

1. Agency/Subagency originating request	2. OMB control number b. <input type="checkbox"/> None a. _____ - _____
3. Type of information collection (<i>check one</i>) a. <input type="checkbox"/> New Collection b. <input type="checkbox"/> Revision of a currently approved collection c. <input type="checkbox"/> Extension of a currently approved collection d. <input type="checkbox"/> Reinstatement, without change, of a previously approved collection for which approval has expired e. <input type="checkbox"/> Reinstatement, with change, of a previously approved collection for which approval has expired f. <input type="checkbox"/> Existing collection in use without an OMB control number For b-f, note Item A2 of Supporting Statement instructions	4. Type of review requested (<i>check one</i>) a. <input type="checkbox"/> Regular submission b. <input type="checkbox"/> Emergency - Approval requested by _____ / _____ / _____ c. <input type="checkbox"/> Delegated
7. Title	5. Small entities Will this information collection have a significant economic impact on a substantial number of small entities? <input type="checkbox"/> Yes <input type="checkbox"/> No
8. Agency form number(s) (<i>if applicable</i>)	6. Requested expiration date a. <input type="checkbox"/> Three years from approval date b. <input type="checkbox"/> Other Specify: _____ / _____
9. Keywords	
10. Abstract	
11. Affected public (<i>Mark primary with "P" and all others that apply with "x"</i>) a. ___ Individuals or households d. ___ Farms b. ___ Business or other for-profit e. ___ Federal Government c. ___ Not-for-profit institutions f. ___ State, Local or Tribal Government	12. Obligation to respond (<i>check one</i>) a. <input type="checkbox"/> Voluntary b. <input type="checkbox"/> Required to obtain or retain benefits c. <input type="checkbox"/> Mandatory
13. Annual recordkeeping and reporting burden a. Number of respondents _____ b. Total annual responses _____ 1. Percentage of these responses collected electronically _____ % c. Total annual hours requested _____ d. Current OMB inventory _____ e. Difference _____ f. Explanation of difference 1. Program change _____ 2. Adjustment _____	14. Annual reporting and recordkeeping cost burden (<i>in thousands of dollars</i>) a. Total annualized capital/startup costs _____ b. Total annual costs (O&M) _____ c. Total annualized cost requested _____ d. Current OMB inventory _____ e. Difference _____ f. Explanation of difference 1. Program change _____ 2. Adjustment _____
15. Purpose of information collection (<i>Mark primary with "P" and all others that apply with "X"</i>) a. ___ Application for benefits e. ___ Program planning or management b. ___ Program evaluation f. ___ Research c. ___ General purpose statistics g. ___ Regulatory or compliance d. ___ Audit	16. Frequency of recordkeeping or reporting (<i>check all that apply</i>) a. <input type="checkbox"/> Recordkeeping b. <input type="checkbox"/> Third party disclosure c. <input type="checkbox"/> Reporting 1. <input type="checkbox"/> On occasion 2. <input type="checkbox"/> Weekly 3. <input type="checkbox"/> Monthly 4. <input type="checkbox"/> Quarterly 5. <input type="checkbox"/> Semi-annually 6. <input type="checkbox"/> Annually 7. <input type="checkbox"/> Biennially 8. <input type="checkbox"/> Other (describe) _____
17. Statistical methods Does this information collection employ statistical methods <input type="checkbox"/> Yes <input type="checkbox"/> No	18. Agency Contact (person who can best answer questions regarding the content of this submission) Name: _____ Phone: _____

19. Certification for Paperwork Reduction Act Submissions

On behalf of this Federal Agency, I certify that the collection of information encompassed by this request complies with 5 CFR 1320.9

NOTE: The text of 5 CFR 1320.9, and the related provisions of 5 CFR 1320.8(b)(3), appear at the end of the instructions. *The certification is to be made with reference to those regulatory provisions as set forth in the instructions.*

The following is a summary of the topics, regarding the proposed collection of information, that the certification covers:

- (a) It is necessary for the proper performance of agency functions;
- (b) It avoids unnecessary duplication;
- (c) It reduces burden on small entities;
- (d) It used plain, coherent, and unambiguous terminology that is understandable to respondents;
- (e) Its implementation will be consistent and compatible with current reporting and recordkeeping practices;
- (f) It indicates the retention period for recordkeeping requirements;
- (g) It informs respondents of the information called for under 5 CFR 1320.8(b)(3):
 - (i) Why the information is being collected;
 - (ii) Use of information;
 - (iii) Burden estimate;
 - (iv) Nature of response (voluntary, required for a benefit, mandatory);
 - (v) Nature and extent of confidentiality; and
 - (vi) Need to display currently valid OMB control number;
- (h) It was developed by an office that has planned and allocated resources for the efficient and effective management and use of the information to be collected (see note in Item 19 of instructions);
- (i) It uses effective and efficient statistical survey methodology; and
- (j) It makes appropriate use of information technology.

If you are unable to certify compliance with any of the provisions, identify the item below and explain the reason in Item 18 of the Supporting Statement.

Signature of Senior Official or designee

Date

Agency Certification (signature of Assistant Administrator or head of MB staff for L.O.s, or of the Director of a Program or Staff Office)	
Signature	Date
Signature of NOAA Clearance Officer	
Signature	Date

**SUPPORTING STATEMENT
COMMERCIAL HARVESTER AND RECREATIONAL PARTY AND CHARTER
BOATS SOCIOCULTURAL AND ECONOMIC DATA COLLECTION PILOT STUDY
OMB CONTROL NO. 0648-0400**

Introduction

The following is the supporting statement for the Paperwork Reductions Act submission for the extension of the “Commercial Harvester and Recreational Party and Charter Boats Sociocultural and Economic Data Collection Pilot Study.” This submission is to gain approval from the Office of Management and Budget to continue to conduct this data gathering. Due to a one year delay in initiating the project, data collection efforts must be extended through June 30th, 2004 to allow for completion of the proposed data collection cycle.

A. JUSTIFICATION

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

A collection of social, economic and cultural information from firms affected by the managements of federal commercial fisheries on the east 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) (see Attachment 5) 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, economic and cultural information on commercial and recreational 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)(see Attachment 5). 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 (see Attachment 4).

National Standard Guidelines for social, economic and cultural information needs are mandated in the 50 CFR 600 (attached). Additionally, a recent legal decision was ruled against DOC, NOAA, NMFS based on the lack of social and economic information. Thus, it is imperative that these data be collected to accurately assess the economic and social impacts on individual fishing entities as imposed by fishery management plans and regulations. Most important, the fishing industry has been calling for the inclusion of social, cultural and economic data in the formation of fishery management plans.

Sociocultural and economic data will be collected, during a three-year pilot study by NMFS port agents using initial face-to-face interviews of a panel composed of boat owners, captains and fishing vessel crew members who volunteer to participate in this study for the entire three year period. This will allow a time-series of information on the panel participants. After the first year, interviews may be conducted over the telephone for all but approximately 10 percent of the panel. The face-to-face interviewing will continue in order to make comparisons between the two interview techniques.

This pilot study will determine the best and most efficient means of collecting these data. This study will be conducted using a sample frame of summer flounder commercial harvester and recreational party and charter boat operators in selected states along the East Coast of the United States. Additional detail of this study is presented in Attachment 1.

This pilot study is to be conducted under the auspices of the Atlantic Coastal Cooperative Statistics Program (ACCSP). The ACCSP is a cooperative effort among federal and state fisheries managers to coordinate and improve data collection activities on the Atlantic coast. There are 23 Atlantic state, regional, and federal fisheries management agencies in ACCSP. The National Marine Fisheries Service (NOAA, Department of Commerce) is a partner in this program.

The ACCSP was initiated on November 2, 1995. The ultimate goal of ACCSP is to coordinate the collection, processing, and storage of fishery information such that all fishery data collected by ACCSP partners are compatible, consistent, and standardized. This will dramatically improve data retrieval, facilitate data analysis, and have an overall positive impact on the agencies' ability to manage marine fisheries.

The National Marine Fisheries Service currently collects information from commercial and recreational fishing vessels pertaining to their fishing activities, gear usage, trip dates, landings, discards, and other information using a mandatory commercial fishing vessel trip report (VTR) log book reporting system. There are no substantial social, economic, or cultural data collected in this system. Additionally, commercial fish landings data are collected from fish purchasing enterprises (Commercial Fisheries Database System, CFDBS). Limited economic information is gathered in this system. The value of landings is the only economic information contained in this system. This information is not comprehensive enough for full economic, cultural and social analysis.

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 information collected during this pilot study will be used by NMFS social scientists and ACCSP members to evaluate and modify future ongoing social, cultural and economic surveys. The analysis of the sources of variation during this study will allow future social, cultural and

economic surveys to be more efficient based on improved stratification and survey designs. Additionally, this pilot study will provide an in-depth assessment of the study instrument and interview process.

These data will play an integral role in the social, cultural and economic analyses needed for Social Impact Assessments (SIA) and Community Impact Assessments (CIA) of fishery management plans and regulations. Statistical models that predict or forecast various characteristics such as fleet size, fishing activity or effort, cost 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.

The following is a detailed description of justifications for the collection of these data. Section and question numbers refer to the study instrument presented in Attachment 3.

Justifications for Socioeconomic Survey Questions

Section I. Variable Costs and Payments

In general, this section of the survey instrument asks questions pertaining to the costs incurred and payments made as a result of a particular fishing trip. Data resulting from these questions are generally necessary to generate cost functions, profit functions, input demand functions, and production functions. Such functions and the results generated from their estimation are typically used in financial analyses (used to determine a firm's 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), and cost-benefit analyses (used, in part, to determine the net economic benefits of a particular action). This 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.

Questions 1 through 3 - These questions' purpose is to identify the vessel, trip, and operator for which the survey is being conducted. These questions are necessary in order to link the survey data to other pertinent data, such as that contained in the logbook (primarily catch and effort data) and coast guard (certain vessel characteristics) databases. Questions 1 and 2 will not actually be asked of the fisherman, but will rather be filled in by the interviewer prior to the interview.

Questions 4 and 5 - These questions ask for the operator's contact information. These questions are asked in case interviewers need to conduct follow-up with respondents or to send survey related materials or reports to the panel of respondents.

Questions 6 through 20 - These questions all pertain to the non-labor costs (fuel, oil, ice, bait, gear/tackle, and food) associated with the particular trip in question. These costs are expected to

vary across trips, even for the same fisherman and fishing craft, and across time. They are generally related to or a function of the level of fishing activity engaged in on a given trip. For each potential input, we request information about the nature of the input (e.g. was the ice purchased or manufactured onboard, was the bait caught or purchased, etc.), the quantity of the input purchased, the unit in which the input was purchased (e.g. gallons, pounds, boxes, blocks, etc.), and the price per unit. Quantities and prices are requested since total costs for each input can change due to a change in the quantity purchased or the price per unit. Prices of inputs may also differ according to their exact nature (e.g. the prices of different types of bait). Further, both pieces of information are needed to predict or explain changes in the quantities of inputs purchased as well as the level of production. That is, this information can be used to construct input demand functions, cost functions, and production functions, all of which are needed to conduct the types of analyses mentioned previously.

Questions 21 through 27 - These questions are meant to determine the “miscellaneous” costs associated with a given trip. “Miscellaneous” costs are those other than the “standard” trip costs addressed in questions 6 through 20, and are also not related to the labor cost incurred as a result of paying the crew. Though treated separately in the questionnaire, these costs can be just as significant to the total cost of taking a fishing trip as compared to the cost of obtaining the standard inputs. Specifically, questions 21 and 22 request information regarding costs associated with baiting the gear and processing the fish, above and beyond those monies paid to the crew. Questions 23, 24, and 25 ask for costs related to transporting the fish from the fishing craft to the market, and the costs of getting the fish sold. Question 26 requests costs associated with the processing or storing of the fish. Question 27 asks for costs associated with repair and maintenance to the fishing craft as a result of this trip (as opposed to the more significant repair and maintenance expenses incurred when boats are hauled out of the water, typically on no more than an annual basis).

Questions 28 through 33 - These questions are meant to obtain information regarding the payments made to crew labor (i.e. the crew share system). This information can be used to estimate the labor expense incurred by the vessel owner for a given trip. The information can also be used to determine the allocation of income payments across crew members. More specifically, question 28 asks what type of crew share system is used. Question 29 then proceeds to ask for the breakdown of the net revenues (i.e. revenues minus shared trip costs) between the boat and the crew. These net revenues basically represent the flow of income to the various fishermen associated with this trip and vessel. For the owner, this flow of income will be partly used to cover fixed costs (which are asked about in section III of the survey instrument). Whether or not the owner’s share of the net revenues is sufficient to cover the fixed costs and provide a reasonable rate of return on his capital investment will affect his decisions to remain in the fishery, switch to another fishery, or exit from fishing altogether. From the captain and crew’s perspective, their share of the net revenues determines the incomes of their respective households. Variations in the income received from a trip can affect the captain’s and crew’s decisions to continue working on this particular boat (as opposed to another boat), in this particular fishery, and/or in fishing as a vocation. Question 30 requests information regarding who bears the burden of the various non-crew related trip expenses (i.e. fuel, ice, bait, etc.). As these burdens change, the flow of net revenues and income to the boat owners and the crew will

also change. It is important to note that changes in the various trip related costs can alter agreements pertaining to who will bear those costs and thus the net revenues accruing to the owners and crews. Similarly, changes in fixed costs can cause owners and crew to renegotiate how the net revenues are split or shared, and thus the incomes accruing to each.

Question 31 asks for additional detail on how the total share to the captain and crew is allocated across those persons. The question is in the form of a table to facilitate data recording and entry. More specifically, we ask for information that will allow us to discern how the payments to individual crew members are determined. We hypothesize that the crew members' particular jobs or functions on the trip (e.g. captain, first mate, cook, engineer, etc.) and their relationships to the other crew or the owner will partially affect the size of the share they receive. Again, variations in these shares will affect the distribution of incomes across crew members, and thus their perceptions of whether that distribution is fair. Perceptions of an unfair distribution system may cause crew members to shift to another boat, another fishery, or another vocation. The presence of payment differentials may also serve as an incentive for crew to invest in their own human capital. That is, a beginning deckhand 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. The request for information regarding the presence of familial relationships between the crew and owners also ties in with the social and cultural information requested in section II of the survey instrument. The presence of familial relationships will likely affect a fisherman's willingness to continue in the fishing business. The remaining parts of the table ask for information regarding the basis for each crew member's rate of remuneration. That is, is payment directly based on productivity, as reflected by the level of harvest or revenue, or is it based on a standard unit of time, such as an hourly or daily wage? The basis of remuneration can affect the productivity of the crew and boat and, as noted before, the crew's perception of whether the remuneration system is fair. Note that, without information on the basis for remuneration, it would be impossible to calculate the per trip income accruing to individual crew members for non-sampled trips.

Question 32 asks the captain to describe the distribution of proceeds to the boat and crew if a system different from the norm is employed. Relatedly, question 33 asks for the total payment made to the crew. Although this question may seem redundant of the previous questions, it is being used as a cross-check for the previously provided answers. Further, should a captain not be able to provide answers to some of the more detailed questions, a response to this question will at least ensure that we have knowledge of the crew share expenses incurred by the vessel (i.e. the payment to crew labor)

Question 34 - This question is specific to party/charter boats and asks about additional costs related to the sale of consumer goods

Question 35 - This question is meant to ascertain any trip related costs that may have been missed in the previous questions. Given the variety of fisheries covered by this survey, it is possible that we may have missed some of the costs typically incurred in particular fisheries.

Question 36 - This question asks for the total costs associated with the trip in question. Presumably, this figure should be the summation of the costs indicated in the previous questions. Again, this question will be used as a consistency check for the answers provided to the previous questions. That is, the interviewer and the respondent can use the response to this question to determine if, in fact, the sum of the previously provided numbers equal the total. If not, that finding would indicate potential inaccuracies to one or more of the previous questions, which can then be corrected. Further, should the captain be unable to provide some of the individual cost estimates, this question will at least ensure that we know the total trip related expenses.

Question 37 - 42 - These questions are specific to party/charter boats. For commercial vessels, revenue from the sale of seafood will be obtained from existing sources. Since revenue from the sale of other goods/services are not available, these additional revenue questions must be asked of party/charter boat operations.

Section II. Social and Cultural Characteristics of Fishermen

The general purpose of this set of questions is to collect data that describes the social and cultural 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 also 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.

Questions 1 through 6 - These questions basically repeat those asked at the beginning of Section I of the instrument, and are therefore asked for the same reasons. An additional item is included (question 3) which will allow the interviewer and data user to relate the information gathered in section II to data collected in question 31 of Section I. As with questions 1 and 2, this question will not be asked of the fisherman, but is rather filled in by the interviewer prior to the interview.

Question 7 - This question is meant to verify the information which the captain provided in Section I of the survey regarding each crew member's job or role on the trip and vessel in question. There is a possibility that the crew member may view his job or role differently from the captain.

Questions 8 through 11 - These questions ask for basic demographic information about the fishermen (i. e. age, level of education, marital status, and ethnicity). 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.

Question 12 - This question pertains to the fishermen's health and access to health insurance, which are examples of non economic social aspects of the human environment. Such aspects or factors are an important component of a social factor analysis. The impacts of a proposed rule or policy on such factors would be part of a thorough social impact assessment.

Questions 13 through 15 - These questions ask for information about the fishermen's primary language of communication and their ability to use English as a language for communication. 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. The inability to communicate well in English may preclude or serve as a barrier to associating with people whose primary language is English. Further, those who do not communicate well in English are more likely to experience communication problems with fishery management officials and law enforcement. As a result, compliance with rules and regulations is less likely with these fishermen and, in turn, they are more likely to face higher levels of penalties and fines for noncompliance. 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.

Questions 16 through 23 - This set of questions will obtain information on the social structure of the fishermen, their families, and the communities to which they belong. In addition to determining the existence and nature of the ties between fishermen and those persons or institutions which comprise their social structure, certain questions attempt to discern the strength of those ties or networks.

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 NMFS 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. Certainly, a person's religion is a general reflection of some composite set of attitudes, beliefs, and values. The degree to which a person is active in a particular religious organization reflects the strength of particular beliefs and values (i.e. how much do those beliefs and values affect who that person is and the behaviors they engage in). Furthermore, and related, religion or religious affiliations 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. 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.

Additionally, it is important to determine social and cultural systems or organizations within fishing communities that will provide support in the mitigation of potential impacts on fishers due to fishery management regulations. When certain groups are impacted, as a result of fishing regulations, it is important to identify a key person in the community (minister, priest, etc.) who may assist with any outreach or organization of support systems, for the impacted community. It is important to note that these series of questions have been pretested for this study as well as others. There were no instances during the pretest where the respondents refused to answer as to their religious affiliations.

Question 16 is designed to determine potential direct impacts, as a result of fishery regulations, on other members of the fishing family. For example, it was found that wives of fishermen in Florida handle most of the finances for the household and the fishing enterprise. When the wife was forced to seek employment outside the home, this imposed additional stress on her because she had to continue doing all of her regular duties supporting the family and the fishing business as well as her job outside of the home. Thus, certain fishery regulations that impact other members of the household could influence social phenomena such as divorce rates or suicide.

Questions 18 and 19 ask fishermen to indicate how long they have lived in their present community of residence, and whether or not they own a home in that community. Answers to these questions should indicate a degree of permanence or attachment the fisherman has in or with his community. The latter question is also an indicator of the fisherman's wealth, as opposed to income. Similarly, Question 20 asks not only whether the fishermen have any religious affiliations, but attempts to gauge the strength of such ties by asking whether the fisherman is an active member. This question also attempts to obtain information on the fishermen's set of beliefs and values. Information pertaining to cultural beliefs and values is also an important component of social factor analysis. Questions 22 and 23 deal more specifically with the fisherman and his family's attachment to the fishing industry, which may be related to their ties to the community. The main point is that, in theory, the stronger the fisherman's bonds to the fishing industry or a particular fishing community, the less likely he and his family are to leave either the industry or the community.

Questions 24 through 29 - This set of questions is designed to determine the degree to which the fisherman and his 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. However, Questions 29 and 30 also attempt to discern how able and willing a fisherman would be to switch to another occupation should a particular fishery cease to be economically sustainable. Also, we specifically ask the fisherman to indicate his income

category in Question 24 (categories are based on those currently used and developed by the Census Bureau) so that the distributional impacts of proposed management measures can be discerned (e.g. will a particular measure have similar or differential impacts on fishermen of different means or socioeconomic status).

Questions 30 through 33 - Similar to Question 20, this last set of questions attempts to determine fishermen's attitudes toward the fishing industry, its future, and the current management of that industry by state and federal agencies. Again, information on attitudes is an important part of social factor analysis. Further, attitudes about the industry and its management will likely indicate the fishermen's probability of remaining in the industry. They will also indicate a fisherman's willingness to comply with newly enacted rules and regulations.

Section III. Vessel Characteristics, Fishing Firm Structure, and Annual/Fixed Costs

This section of the survey instrument requests information about the vessel or firm as opposed to the fisherman and his family (as in Section II) or a particular fishing trip (as in Section I). As in section I, data resulting from these questions are generally necessary to generate cost functions, profit functions, and production functions. Such functions and the results generated from their estimation are typically used in financial analyses (used to determine a firm's 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), and cost-benefit analyses (used, in part, to determine the net economic benefits of a particular action). This 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.

Question 1 through 4 - Please refer to justifications to Questions 1 through 5 in Section I as these are the same "questions." Note that the information must be obtained here since the captain (who is the respondent in Section I) need not be the same person as the owner (who is the respondent to section III).

Question 5 - This question simply asks the owner to identify the fiscal year for which he is supplying the requested financial data. This information is necessary so that we know the time period during which the provided data is applicable.

Questions 6 through 9 - These questions request information regarding the firm's form of legal organization. Economic theory suggests that form of organization can impact who makes decisions within the firm, how those decisions are made, and what the goals or objectives of the firm might be. Further, form of organization can also impact how efficiently the firm 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 firm's behavior. Question 9 requests further detail on whether partners

or corporate owners are related. As noted in the justifications to Section II questions, familial relationships can affect how the business operates and the degree to which people are tied to each other and the industry.

Questions 10 through 14 - These questions request information regarding certain characteristics of the vessel. Although most vessel characteristics are available from alternative data sources, such as the coast guard and various federal permit databases, some information is not, such as fuel capacity, electronic equipment, and onboard processing equipment. Vessel 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.

Questions 15 through 20 - These questions attempt to discern the amount of financial capital that has been invested in the vessel and the current value of that capital. Note that, in subsequent years when the survey is administered, the question will only ask about investments made in that particular year rather than all previous years. 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. Further, comparison of the nominal level of investment (purchase price plus subsequent investments) with the current market value can also indicate whether the owner has overinvested in the productive capability of the vessel. The current market value of capital can also be considered an input in the production process.

Question 21 - This question requests information that will allow us to determine depreciation expenses. 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 would not be relevant in a cash-flow analysis.

Questions 22 through 27 - These questions request information pertaining to annual costs. Certain costs are variable, but do not vary on a trip by trip basis. As such, they are typically reported on an annual basis. Costs incurred as a result of vessel haul-outs, repair and maintenance, and mooring/dockage would be examples of such. We request information on what was done during the haul-out since the nature of the work can vary, and thus the accompanying cost will also vary. Also, since vessels may not be hauled out each year, we ask for the number of years between haul-outs so that the associated costs can be allocated over the appropriate period of time.

Questions 28 through 38 - Other costs are basically fixed in the sense that they do not vary according to the level of fishing activity. That is, they must be paid regardless of whether the vessel is used or not. Fixed costs are important because they must be paid regardless of whether the vessel generates any revenue. These costs are also borne entirely by the vessel owner. If

these costs cannot be covered, the firm will go out of business or move on. If sufficiently high, fixed costs can act as a barrier to entry into a particular fishery or the fishing industry in general. That is, fixed costs can affect the probability of entry and exit into and out of a fishery. Note that in Question 31, we request fishermen to break down the costs of permits and licenses by fishery since it is likely that the cost of participating in certain fisheries will differ, particularly when those fisheries are managed via limited entry.

Question 39 - 41 - These questions ask for fixed costs specific to party/charter boats.

Question 42 - This question is also specific to party/charter boats. This information will provide an estimate of harvest capacity in this sector.

Question 43 - This question captures any additional fixed costs not covered by previous questions.

Question 44 - In this question, we request detailed information on the nature of the loan arrangement(s). It is commonly asserted that fishermen have difficulty securing credit via traditional sources, such as banks, and therefore must rely on non-traditional means. It has been further asserted that, when fishermen are able to obtain credit, they must pay higher than normal interest rates. The information provided in response to this question should allow us to gauge the accuracy of these assertions.

Question 45 - This question asks for the total of all business expenses related to the fishing vessel for the fiscal year. This figure cannot be determined from adding the fixed costs and the trip costs since we will not be interviewing captains after every trip. Therefore, it is important to ascertain a total business expense figure for certain financial analyses.

Section IV. This section basically repeats the questions asked in section III, and thus would be justified in the same manner. With respect to vessel characteristics and fishing firm structure, we ask the respondent whether the previous year's information has changed. If not, then the questions are not asked again. In other instances, such as the annual and fixed cost questions, new information is requested since those are likely to change from one year to the next, particularly if the vessel has switched fisheries.

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. As explained in the preceding 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. 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.

This study will use face-to-face and telephone interviews administered to volunteer study panel members by NMFS port agents. Responses to scripted interviews will be recorded on preprinted standardized data forms and mailed to the Northeast Regional Office of the National Marine Fisheries Service. The survey forms will be entered directly into ORACLE data tables. These data can then be linked and integrated into various other commercial and recreational data for fishery analysis, statistical modeling, and summarization.

Pilot study panel members will not be required or requested to fill out any documents, data forms, or submit any written materials for data purposes. There will be no other means, electronic or otherwise, to submit data or information for the purposes of this study.

4. Describe efforts to identify duplication.

There is no duplication of individual fishing trip level social, cultural and economic information on the summer flounder fisheries. This information will be unique in its detail and specificity to individual fishing entities, their crew, expenses, vessels' ownership, and general operation. Additionally, these data will be linked to fishing vessel trip report data already collected. This will allow correlations with gear used, species harvested and discarded, areas fished, time spent on trip, and other details of selected trips. This information will be gathered using fishing trip report logbooks currently required by the NMFS. Specific social, cultural and economic information is detailed in the draft study instrument as presented in Attachment 3.

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

The Pilot study will have no significant economic impact on small business entities. Special equipment or supplies are not required to participate in this study. Fishing and business activities will not be significantly interrupted due to interview time or gathering of their individual information. The results of this study are expected to improve the economic conditions of small fishing entities by affording fishery management agencies the information needed to consider social, cultural and economic factors in management plans and regulations.

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

Recent legal decisions against the Federal government have been handed down based on the absence of social, cultural and economic data. Specifically, the summer flounder litigation: North Carolina Fisheries Association, et al. versus Daley - Civil Nos. 2: 97cv339; 2: 98cv606.

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

All OMB guidelines for information collections will be met. This study will not require:

- 1) respondents to report information more often than quarterly,
- 2) respondents to prepare a written response in fewer than thirty days after they receive the request,
- 3) respondents to submit more than an original and two copies of any document,
- 4) respondents to retain records for more than three years unless those records are health, medical, government contract, grant-in-aid, or tax records.
- 5) This study will be a statistical study which is designed to produce valid and reliable results that can will be generalized to the universe of study population. In other words, the information that will be collected by our study panel will be expandable or applicable to all summer flounder fishing enterprises.
- 6) The statistical data classification will be reviewed and approved by the OMB. Additionally, statistical design of this study was reviewed by a NMFS statistician and ACCSP sociologists, anthropologists, economists and fishery statisticians.
- 7) The collection of these data and the pledge of confidentiality will fall under the same mandates as presented in 16 U.S.C. 1881-1881a M-S Act §§ 402(b)(c) and 50 CFR § 600.130, § 600.405, § 600.410, § 600.415, § 600.420, and § 600.425. NMFS internal procedures are established to insure confidentiality of these data and ACCSP has defined confidentiality protocols in Section 12.a of the ACCSP Program Design, First Edition (December 14, 1998).
- 8) This study will not require respondents to submit proprietary, trade secret, or other confidential information that falls outside the above defined regulations and statutes.

8. Provide a copy of 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.

The announcement of this proposed extension to the study was published in the Federal Register on February 7, 2003 (copy attached). The public comment period ended on April 8, 2003. There were no public comments received.

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

Panel members and all respondents will receive no monetary compensation for their participation in this study.

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

All data will be kept confidential in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Sec. 402, 16 U.S.C. § 1881a); 50 CFR Part 600 Subpart E; Freedom of Information Act (5 U.S.C. § 552); 15 CFR Part 4; and NOAA Administrative Order 216-100. Additionally, as stated in section 7.7 above, The collection of these data and the pledge of confidentiality will fall under the same mandates as presented in 16 U.S.C. 1881-1881a M-S Act §§ 402(b)(c) and 50 CFR § 600.130, § 600.405, § 600.410, § 600.415, § 600.420, and § 600.425. NMFS internal procedures are established to insure confidentiality of these data and ACCSP has defined confidentiality protocols in Section 12.a of the ACCSP Program Design, First Edition (December 14, 1998). The ACCSP operations committee is in the process of updating the Confidentiality Standards. This revised document is in the review process and should be available soon.

Information collected from this study will not be released for public use except in aggregate statistical form. Data forms with individual respondents answers to interview questions will have unique codes assigned and printed in bar code format such that only NMFS personnel in the Fishery Statistics Office will be able to decipher the respondent's identity.

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.

Questions of a sensitive nature will be asked of all volunteer respondents. These questions include, but are not limited to, the respondent's financial earnings from fishing activities, business expenses, relationships among members of the crew and certain demographic characteristics (see survey instrument in Attachment 3). The questions are necessary for the development of social and economic assessment models. In-depth justifications for individual survey questions were provided above in section 2.

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

The voluntary study panel will be made up of approximately 323 commercial and for-hire recreational fishing vessels.

Public reporting burden for this collection of information is estimated to average fifteen (15) to twenty (20) minutes per interview. This includes the time required to read the introductory statement to the respondent.

As described above, the survey consists of four sections. Section I is administered to the fishing vessel's captains for each of the four selected trips each year of the study. Therefore, there would be 1,292 Section I interviews. Section II will be administered after one selected trip per year. Since all crew members will be asked these questions, the average crew size for particular

types of fishing vessels was multiplied by the number of vessels selected for sampling from that group (see Section B). This results in an estimate of 1,232 Section II interviews.

Section III was administered once at the end of the first year and, after year one was replaced by the Section IV survey. The Section IV survey was administered at the end of each subsequent year. Since the initiation of information collection was delayed after the initial approval by approximately one year, the proposed extension allows for the completion of the final round of Section IV surveys. Therefore, there will be 323 Section IV interviews conducted during the proposed extension year.

There may be additional time required if the respondent needs to review business records prior to Section IV interviews. It is estimated that, on the average, it may require a captain or owner fifteen (15) minutes to gather the necessary information. This time burden will only occur once during the proposed extension year. The estimate burden time for Section IV information gathering is 81 hours.

Thus, for the summer flounder panel, there will be approximately 2,847 interviews of fifteen (15) minutes duration and an additional 81 hours for captains/owners to gather necessary business information or data, for a total of 793 hours of burden time.

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 #12 above).

There will be no financial cost to the public to participate in this study. Information to be gathered in this study should be readily available in the vessel fishing trip record books, recalled from the respondents memory, or found in federal tax returns.

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

Cost Summary:

The proposed budget for year 2003-4 is \$54,751.

Summer flounder Commercial Harvester Pilot Study
Estimated Spending Plan - 2003 to 2004

<u>Description</u>	<u>Amount</u>	
Coordinator (0.25 FTE)	1,270.15	
Field Supervisor* (0.25 FTE)	1,318.13	
Study Enumerators (2.0 FTE)	49,210.12	
	Subtotal**	\$51,798.39
Training/support	703.00	
Travel and Per diem	246.05	
Port Agent visits and QA	246.05	
Data QA and verification	1,757.50	
	Subtotal	<u>\$ 2,952.61</u>
	Total	<u><u>\$54,751.00</u></u>

Notes: * Field supervisor will oversee enumerators and conduct interviews.
 ** Subtotal of personnel includes salaries, fringe benefits and overhead.
 Assumptions: 323 vessels in panel, i.e., 2,847 interviews estimated.
 (Enumerators' time includes interview set-up, round-trip travel,
 data quality check and transmission to FSO).

15. Explain the reasons for any program changes or adjustments reported in Items 13 or 14 of the OMB 83-I.

No changes are requested.

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

There are no specific plans for formalized publications of these data. Ultimately these data will be published in summarized format and generalized tables in ACCSP internet information documents. Quarterly progress reports will be submitted to NMFS and ACCSP and a final report with analysis of survey methodologies, survey instrument, and an assessment of the validity of the collected data.

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.

Given that this data collection will use a face-to-face or telephone interview methods, it may not be applicable to display the OMB expiration date on the survey instrument. However, the OMB approval number and expiration data will appear on the first page of the interview form (see Attachment 3). Additionally, the volunteer respondents will be briefed before the study actually begins and they will receive printed information concerning the study. The printed information will include the OMB approval number, expiration date as well as other important information to facilitate their interviews and compliance with applicable laws (see Attachment 3).

18. Explain each exception to the certification statement identified in Item 19 of the OMB 83-I.

There are no exceptions.

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.

Description of Sample Frame and Panel Selection

The sample frame consists of commercial fishing vessels that held federal summer flounder permits, issued by the Northeast Regional Office in 1998, and recorded landing any species in the Northeast logbook database.

In order to select a representative panel, the sample frame was stratified by geographic region, principal gear, and vessel size. Principal gear was assigned by first determining if the number of party/charter boat trips was greater than the number of commercial trips in 1998. If so, then that vessel was assigned a principal gear of “party/charter boat.” If the number of commercial trips was greater than the number of party/charter trips, then principal gear was assigned by determining which gear landed the largest amount (by weight of all species) during 1998. The commercial gear types were categorized as: bottom trawls, dredges, gillnets, hook gear, and other gear types.

Vessel size was categorized as big and small according to relative vessel lengths within gear categories. A vessel with a length above the mean length of its principal gear group was assigned a vessel size of “big.” A vessel with a length below the mean was assigned a vessel size of “small.”

Two regions were defined -- New England (CT through ME) and Mid-Atlantic (NC through NY). Principal region for a vessel was determined by first finding the county where most trips (either party/charter trips or commercial trips) terminated. Then that county's region was assigned as the principal region.

Once a panel is selected in each region, the variable cost portion of the survey will be administered once in each of the four seasons. The crew portion of the survey will be administered, during one of the four trip cost surveys, to all crew members who participated on that trip (including the captain) as well as the vessel owner. These questions are primarily demographic in nature.

The following tables show the vessels stratified by principal gear and vessel size by principal region. Included in the tables are the number of vessels in the survey frame and the number of vessels that should be sampled from each cell.

The choice of sample size from each cell was guided by first assuming values for coefficient of variation (*cv*), relative error (*re*), and significance level (*alpha*). The assumed values are: *cv* = 0.4, *re* = 0.20, and *alpha* = 0.1.

Next, the preliminary sample size (*pss*) was determined by:

$$pss = cv^2 \left(\frac{t_{\alpha,20}^2}{re^2} \right)$$

The preliminary sample size was adjusted by calculating the finite population correction (*fpc*). The *fpc* was determined by:

$$fpc = \frac{1}{1 + \left(\frac{\min(pss, ps)}{ps} \right)}$$

where *ps* = population size of the cell.

The sample size for each cell was determined by calculating a minimum sample size (*mss*). The *mss* is given by:

$$mss = \min((pss * fpc), ps)$$

Although efforts will be made to keep the response rate as high as possible (see Section B.3 below), a response rate of 60% is assumed. Therefore, the minimum sample size is divided by 0.60 to calculate the target sample size in each cell.

There are 1,123 vessels in the summer flounder sample frame. Using the method above, the target sample size is 326 vessels. The following tables describe the study cells.

Mid-Atlantic Region

Principal Gear	Size	Number of Vessels	prelim. sample size	finite population correction	minimum sample size	target sample size assuming 60% response rate
BOTT	big	115	11.89860877	0.90623531	11	19
	small	42	11.89860877	0.779240892	10	17
DREDGE	big	31	11.89860877	0.722634157	9	15
	small	33	11.89860877	0.734989366	9	15
GILL	big	3	11.89860877	0.5	3	3
	small	4	11.89860877	0.5	4	4
HOOK	big	5	11.89860877	0.5	5	5
	small	3	11.89860877	0.5	3	3
OTHER	big	7	11.89860877	0.5	6	7
	small	9	11.89860877	0.5	6	9
PARTYCHA	big	64	11.89860877	0.843230212	11	19
	small	82	11.89860877	0.873282374	11	19
Total		398			88	135

New England Region

Principal Gear	Size	Number of Vessels	prelim. sample size	finite population correction	minimum sample size	target sample size assuming 60% response rate
BOTT	big	176	11.89860877	0.936675376	12	20
	small	179	11.89860877	0.937670532	12	20
DREDGE	big	62	11.89860877	0.838987378	10	17
	small	18	11.89860877	0.602034701	8	14
GILL	big	13	11.89860877	0.522117525	7	12
	small	17	11.89860877	0.588263613	7	12
HOOK	big	43	11.89860877	0.783262107	10	17
	small	39	11.89860877	0.766229194	10	17
OTHER	big	13	11.89860877	0.522117525	7	12
	small	21	11.89860877	0.638324865	8	14
PARTYCHA	big	40	11.89860877	0.77073357	10	17
	small	102	11.89860877	0.895533327	11	19
Total		723			112	191

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 stated above, there are approximately 1100 active commercial and party/charter fishing vessels which currently hold federal permits to land summer flounder (*Paralichthys dentatus*). The study population for this pilot is comprised of these vessels. This group of vessels was chosen as they are sufficiently dispersed along the entire East Coast of the United States, have a broad range of vessel sizes and fishing gears, and is a relatively constant set of vessels. Additionally, important vessel ownership information is available as well as fishing activity and landings data.

Consistent with the cells defined above, 326 vessels will be randomly selected and contacted to solicit their voluntary participation in this study.

Vessel owners who do not volunteer will be contacted again in order to gain cooperation. To increase effectiveness, the message in the secondary contacts and the contact method (phone, mail, in person) will be altered.

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.

In an attempt to maximize the participation rate as panelists, an outreach program has begun that will inform the fishing industry of this impending study and the overall ACCSP program. The outreach program will also educate fisherman on the intended use of the information and the benefits of participation. Additionally, key industry leaders are currently being contacted to inform them of the importance of this study and ask that they encourage others to participate if asked.

The decision to use the personal interview method was based on its ability to produce high response rates. Since the interviewer can interact with the fisherman, frustration with the survey can be minimized by immediate response to question interpretation problems.

Also, subsequent contacts to non-respondents will increase the number of volunteers.

Non-response bias arises when people are unable or refuse to answer a question and there is a difference between respondents and non-respondents in regards to a key question of the study. While the response to a key question by a non-respondent will not be known, it is possible to use other information to identify potential differences between respondents and non-respondents

across the entire population. We currently have data on vessel characteristics for all vessels through vessel permit applications and landings information through mandatory fishing activity reports.

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.

A pretest of the proposed study instrument was conducted between July and September 1999. The pretest was conducted on 9 fishing vessel owners or fishermen, four in Maine and five in Florida. The pretests were conducted to determine the understandability and efficiency of the wording for each question and to determine the time required for each interview.

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.

Individuals consulted on statistical aspects of the project:

Drew Kitts PH: (508) 495-2000 x2231
John Ward PH: (301) 713-2328 x167
Mike Travis PH: (727) 570-5335
Earl Meredith PH: (978) 281-9276
Alan Lowther PH: (301) 713-2367

Individuals involved in data collection:

Sarah Babson-Pike PH: (508) 984-0063
Lorraine Spenle PH: (508) 945-5961
Walter Anoushian PH: (401) 783-7797
Erik Braun PH: (631) 324-3569
Nicole Wesley PH: (732) 349-3533
Walt Makowski PH: (609) 884-2113
Chris Petruccelli PH: (609) 884-2113
Ingo Fleming PH: (609) 884-2113
George Mattingly PH: (757) 723-3369

List of Attachments

- 1. Commercial Harvester Pilot Study - Proposal**
- 2. Commercial Harvester Pilot Study - Draft Study Instrument**

Attachment 1

Commercial Harvester Pilot Study - Proposal

Commercial Harvester Pilot Study

Introduction

This pilot study of the ACCSP commercial socioeconomic data gathering system is designed to look at three specific arenas. One is to identify and address potential problems with the mechanics of implementing the system. These include all data gathering, entry and storage activities as well as the ability to link the data to all other ACCSP data and to US census data. The second is to carry out a field test of the survey instrument across the different cultural and socioeconomic contexts in which the data gathering system must eventually be implemented. Field testing of questions and instruments is standard procedure in preparing for any survey research. The third arena is to verify the economic model. Initial data gathering for the summer flounder fishery will be carried out and the data used for test runs of several standard economic models.

Basic Approach

Objectives of the Pilot Study

1. Determine if catch/effort data collected from a census of fishermen can be combined with cost and earnings and sociocultural data collected using a random sample to result in meaningful estimates of fishermen behavior.
2. Demonstrate how a state partner can conduct the socioeconomic data collection portion of ACCSP and identify logistical and other issues related to state level implementation.
3. Identify appropriate sample sizes. Implementation of the commercial harvester' survey program requires that we identify the minimum sample size that can be used to validly characterize the fisheries. This minimum sample size is a function of the variance of our variables of interest. The pilot study will begin to discover these variances.
4. Field test questions used in the survey instrument.
5. Assess the ability to evolve the sampling method from personal interviews to phone surveys inclusive of determining the impacts of pooling data gathered from varying methods and by different partners.
6. Verify the economic models.

Design of the pilot study.

Given these objectives, a stratified random sample of a universe of fishing vessels (stratified by major gear and vessel size) using personal interviews to collect observations appears to offer the highest success rate for collecting cost and earnings data for this pilot study. According to our consulting statistician a panel design is a much more effective way to do this than the alternative repeated cross-section design. A panel design means that we will select a sample of vessels and stay with that same sample, interviewing people from these same vessels, for a period of three years. The three-year design was chosen because a minimum of three data points are required in a panel design for valid statistical analysis. Evidence does exist that mail surveys and telephone surveys have significantly higher response rates once the personal interview has established contact with fishermen and so could be used in successive years. Therefore, we propose that the pilot study consists of two visits in the first year to the selected states for face to face interviewing with all selected vessels, and one initial visit in each of the two subsequent years. The fully implemented ACCSP program would continue with a panel design but with less frequent visits, tentatively on the order of every fifteen months. The remainder of the interviews will be done by telephone. However, statistical validity requires that a small number of vessels continue to be interviewed face-to-face throughout in order to control for the effects of changes in methodology.

The information on the variance of key variables gleaned in the first year will also tell us if we need to increase the frequency with which the data are collected. If such an increase is necessary, then we will have to consider asking panel participants to record certain information about each of their trips. If an extremely high variance is found, then the information will have to be gathered more frequently and from a larger number of vessels. In such an event, we will have to consider incorporating logbooks, or other larger-scale mechanisms, in our data-gathering effort.

The research objective of the pilot study is to characterize the summer flounder license holders in Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Maryland, Virginia and North Carolina. These states were chosen on the basis of both significant fisheries and geographical spread. A stratified random sample of vessels will be chosen in each of these states and people associated with these vessels will be asked to participate in the research panel for a period of three years.

The survey consists of four sections. Section I deals with fixed costs and is to be administered to an owner of the vessel on the first visit of the panel study. Section II also deals with fixed costs and is to be administered to an owner (if possible the same owner as in Section I) of the vessel on the first visit of each of the second and third years of the panel. Section III deals with variable costs and crew information and is to be administered to the captain of the vessel for each of the four selected trips each year of the study. Section IV is to be administered on the second visit of each year to all people who were present on the vessel during that trip. It will also be administered to the owner that responded to Sections I and II whether or not that person was present on the vessel during the selected trip.

Because we will be moving from face-to-face to telephone survey, the first quarter of the survey will be the most labor intensive. This intensity will decrease about 30% in the second quarter. The third and fourth quarters will each require about a third of the effort of the first quarter. In order to make the most efficient use of resources, initiation of the survey in the five summer flounder states will be staggered by quarters. For example if winter of 1999 is the first quarter in Massachusetts, then spring of 2000 would be the second quarter in Massachusetts and the first quarter in New York. When we move beyond the pilot stage and begin the actual ACCSP implementation the time between panel visits would be much longer, on the order of 9 to 15 months, but they would still be designed so that ports are visited during different seasons.

Sampling schedules described above may be modified based on the final selection of contractor or NMFS and the dates of OMB acceptance. It is envisioned that, if NMFS conducts the field work, the start date for interviews could be between mid January and mid March.

The survey results will be linked to existing data bases using U.S. Coast Guard vessel identification numbers, state registration numbers, or permit numbers which will minimize the number of questions that need to be asked and will allow the determination of statistical bias in the responses by fishing firm owners. Where this is not possible, the survey questionnaire should collect sufficient information to allow the statistical results to be extended to the vessels in those data sets. This approach will allow not only the estimation of operating costs but also allow the additional analysis needed to determine the impact of fishery management regulations on fleet size.

The Relationship of the Pilot Program to ACCSP Implementation

The overall scope of the ACCSP Socioeconomic data collection program is evolving and will become more defined with this project. A complete coast wide license frame does not exist yet, therefore total number of participants by county and information about factors (vessels size, gear types, fishery participation) are unavailable. There are about 185 coastal counties on the East Coast from Maine to Florida. There are approximately 80,000 commercial fishing licenses on the East Coast. A rough estimate of the total number of commercial fishing trips (the survey unit for trip costs and sociocultural data) is 2.5 million trips. Statistical design of the overall Program will probably dictate about 5 major gear categories and 6-8 vessel size classes. It would be imprudent though to estimate the number of cells from these numbers because the relationships between trips, gear, vessels, licenses and county are not clear.

The large overall numbers of trips and participants should be regarded with some caution. The majority of participants and their respective trips are becoming more heterogeneous as business units become smaller and this trend may continue. For example, shellfish diggers and crab potters may not need to be surveyed at a rate comparable to scallop dredgers or fin fish draggers. Total economic impact and gross impact on the resource should also be considered in the design of the Program. It is understood that one goal of the ACCSP is to eliminate the data gaps in many smaller fisheries that are often overlooked by current collection programs. Mandatory trip level reporting of all catch and effort data from commercial fishing trips will greatly improve the data situation for most fisheries. Our design though does need to consider sampling intensity of

all sizes of business units and each groups' contribution to our bioeconomic and sociocultural modeling needs.

Administration of the program by a number of different partners should be easily accomplished if statistical design criteria set forth by the CESS are followed by each partner. Specifically, the number of cells in any state and sample size within the cells will be easily calculated when the partner is ACCSP compliant. The number of in-person and telephone surveys will be a percentage of sample size and distribution between survey modes will be determined in the Program design. The survey questions should not be changed though without the consent of the CESS. Data should be submitted throughout the year in as timely a manner as possible. Similar to the commercial data collection program, data collected by the partners would be submitted to the ACCSP data warehouse for use and analysis by all ACCSP partners. Partners will have flexibility in whom they will choose to handle local enumeration. Options include their own personnel or contracting third parties. An overall ACCSP coordinating function will continue, which will include training of all enumerators.

We expect the pilot program for summer flounder to be equivalent in size and scope to a partner-level full implementation of the commercial harvester' survey. While the number of gear types and species that need to be surveyed will increase, the frequency of visits in each panel will decrease. This is because the pilot program visits that are taking place every quarter over three years can be increased to every five quarters over four years (four visits every four years) without loss of statistical validity. The aspects of the pilot program that we expect will continue into the full implementation of the ACCSP on this basis are: 1) the combined use of face-to-face and telephone surveys; 2) the basic three to four year panel design; and 3) the continued use of an overall coordinator. These aspects will act as standardization guidelines. If a partner wishes to deviate from these guidelines in a particular data collection effort, and still maintain that effort as part of the ACCSP commercial fisheries survey, they must demonstrate statistical equivalency. There will also be a period of prioritization of fisheries to be phased into the survey program.

Comparison of Survey Methodologies

Survey Methods

Numerous methods exist to collect data as part of a specialized survey or as a census of a population. Traditionally, cost and earnings surveys have been conducted as random samples of a universe of fishermen using personal interviews, mail, telephone surveys, and as voluntary questionnaires attached to logbooks that collected biological stock assessment data. While these have had mixed results, a general pattern seems to exist. In general, better success rates have been achieved when surveying fishermen by conducting personal interviews. Moreover, although in-person interviews are more expensive to conduct, the difference in response rates generally results in a lower cost per completed survey. That is, in person interviews result in more information collected per survey dollar expended.

Personal Interviews

Census. A number of studies have attempted to do a census of the fishermen that they are surveying. For example, a study by Keithly and Baron-Mounce (1990) achieved a 91 percent response rate in personal interviews of 563 inshore Louisiana shrimp fishermen. In addition, using personal interviews Hamilton, Curtis, and Travis (1996) achieved an 85 percent response rate of all vessels active in 1993 in their cost-earnings survey of Hawaii longline fishermen.

Sampling. The use of sampling techniques is more common but requires careful structuring of the sampling technique to achieve unbiased results. For example, the cost model developed by Ward, Ozuna, and Griffin (1995), conducted with the support of the Texas Shrimp Association, was based on a survey of 524 fishermen of which 109 refused to participate resulting in a response rate of 79 percent. Waters, Rhodes, and Wiggers (1997a) initially identified a universe of 653 vessels to be sampled and then using a stratified random sample of 100 boats conducted personal interviews that resulted in 102 actual sample points with a 75 percent response rate. Similarly, Waters, Rhodes, Waltz, and Wiggers (1997b) identified a universe of 709 boats of which 210 were to be sampled that resulted in 147 completed interviews, a 70 percent response rate. Overall, these last two studies achieved a high response and, most important, yielded statistically unbiased estimates of net revenues for fishing craft operating in the Florida Keys and along the south Atlantic coast. Although these estimates may still have some bias, they are less biased than the convenience survey. Additional studies report response rates from 77 to 98 percent (Deseran, 1997, Hamilton and Huffman, 1997, Hamilton, 1998 and Walker, 1997).

Explanation of Response Rates: The response rate for personal interviews tends to be relatively high, although considerable effort may be needed to ensure a successful contact. For instance, the survey by Waters et al., (1997) required up to eight telephone contacts to ensure a successful appointment to conduct the survey. In contrast, the study by Hamilton et al. (1996) generally attempted to intercept captains and boat owners at the docks.

Telephone Surveys

Response rates for telephone surveys were highly variable. Little information on survey methodology was found in the applied studies to explain why response rates differed to such a degree. However, two studies that probably used the same methodology by McCay, O'Neil, and Velcheck (Unknown dates) of the social and economic characteristics of New Jersey and New York party and charter boat industry using telephone surveys resulted in different response rates - 74 and 34 percent, respectively.

Logbooks

Logbooks are also a possible source for cost and earnings information. While not widely used, cost and earnings questionnaires have been prepared to use in logbooks designed primarily to collect stock assessment data. The reef fish and snapper-grouper logbooks had questionnaires designed to collect cost and earnings data, but were not implemented. A data set designed to estimate a bio-economic model has been collected as part of the highly migratory species, pelagic logbook. While stock assessment data is mandatory, the cost and earnings information collected in this logbook was provided voluntarily resulting in some fishermen not providing the information. Cost and earnings data were collected for 1,615 trips out of 7800 total trips in 1996 and 1997 (Emily Hanson, pers. comm.). This resulted in a response rate of 20.71%. Two studies using this data have been conducted (Larkin et al., 1998 And Strand et al., in progress). However, neither study reports on the existence of sample selection bias. Mandatory data collection of the cost data could result in a much more expansive data base from which analyses could be conducted.

Mail Surveys

Response rates from mail surveys tend to be lower even when effort has been made to ensure a successful contact. For example, Gates, Dirlam, Lallemand, and Jung (1998) and Gates and Holmsen (1982)¹ achieved less than a 10 percent response rate despite the fact that a letter describing the objectives of the survey, the survey instrument, and multiple follow-up letters were sent. A 22 percent response rate was achieved in a survey of 400 hook gear fishermen (Georgianna, 1998). Wilen, Chen, and Homans (1991) had a response rate of 29% after two mailings.

Smaller sample sizes, briefer questionnaires, and more homogeneous groups of fishermen seem to result in higher response rates. For example, McCay and O'Neil (1998) achieved a 69 percent response rate surveying 39 Maine charter boat fishermen. Rhodes and Backman (1997) had a 53 percent response rate and no evidence of bias in a demographic survey of commercial reef fishermen in the southern Atlantic region.

An example of a high response rate was the use of two mail survey add-ons to the in-person interview survey by Hamilton, Curtis, and Travis (1996) of the Hawaii longline fishermen. One of the mail survey add-ons was used simply to obtain any missing information from the in-person interview and the other was used in lieu of a personal interview. The success of the mail survey of the latter type (100%) may be attributed to: 1) no surveys were mailed until the in-person survey had been successfully launched; and 2) each interview was contacted by telephone prior to the mailing and an attempt was made at that time to set up a phone interview to complete the survey.

However, a second mail survey of the same group of fishermen in the Hawaiian longline fishery that asked fishermen to reveal how much they would be willing accept or pay for their current or

an additional permit had a very low response rate. The low response rate was due to a) bad timing of the survey, in that the permit market was just beginning to develop and the fishermen were leery about discussing this information, b) some fishermen were offended by some racial/ethnic questions (e. g. identity/ethnic make-up of permit traders), c) the survey was somewhat complex in terms of the questions and the survey structure. Some of the industry contacts indicated that the fishermen found it very difficult to understand, thereby making response too time-consuming or impossible. The role of prior phone contact is likely not significant since the group in-person surveys had just been completed. Further, phone contacts with non-English speakers are not helpful.

Low Response Rates & Self Selection as a Source of Bias

Low response rates are of concern because the cost per unit of information is increased, the precision of the estimates is uncertain, and the possibility of response and self-selection bias can exist. While the cost of information is not the major concern, low response rates and self-selection can result in serious response bias and affect the precision of the estimates. With low response rates, a parallel survey of non respondents is necessary to assess response bias. Without a random sample of the population of interest, resulting estimates of operating costs can also be biased. Steps can be taken to correct for a biased sample if additional information from logbooks or trip ticket files exist. The best course of action, however, is to ensure that a random sample has been achieved and to employ a survey data collection technique that will result in the highest possible response rate. For fisheries in which a large fleet of heterogeneous fishermen exists, personal interviews appear to offer the best technique to ensure a successful response to the survey questionnaire. That is, a stratified random sample of a known universe of fishing firms can be created and the sampling effort can be focused on ensuring that sufficient observations are collected in each stratum.

Examples

Consider three cases that demonstrate this result: Georgianna and Cass (1998), Ward et al. (1995), and Waters et al. (1997). Georgianna and Cass (1998) used logbook and license data collected and maintained by the NMFS to conduct a mail survey of 390 hook boats operating from northeastern region ports harvesting groundfish. Of those surveyed, 158 fishermen indicated that they did not hook fish that year, but 98 of these vessels had hook fished in the previous year. These fishermen almost certainly did not fill out the questionnaire (Georgianna and Cass, 1998, page 40). However, fisherman anonymity was maintained by not collecting information in the mail survey about the owner or operator of the vessel. As a result, it was not possible to verify why these fishermen did not respond. Of the reported 234 vessels remaining in the population, 89 fishermen responded and 145 fishermen did not respond to the questionnaire. It is not possible to determine if these 145 non respondents differ from the 89 fishermen who did respond or from the 158 non respondents who may not have hook fished during the year the survey was conducted. Without a survey of the non respondents, it is not possible to determine if this self-selecting survey resulted in a random sample of hook fishery participants and, as a result, if the resulting operating cost estimates may be biased.

Ward et al. (1995) collected cost earnings data from Texas shrimp fishermen and combined it with data collected in different studies of the fishery beginning in 1971. This combined data set was used to estimate a three-equation total cost model of the fishery. Since shrimp landings, values, and vessel characteristics were available from an independent source (the shrimp landings and vessel operating units files), independent estimates of total vessel operating costs could be made. A comparison of predicted pounds landed from the total cost model to actual landings reported in the data files provided a test of the predictive accuracy of the model. Since landings, values, and vessel characteristics of non respondents were known from an independent data base, estimates of total cost could be weighted to improve estimates of total operating costs (Ward and Nance, 1994). Improved estimates of operating costs should be possible if survey questionnaires allow the comparison of survey results to existing data collection programs, such as logbooks, by collecting vessel identifiers or permit numbers.

The approach adopted by the Waters et al. (1997a, b) studies selected a stratified random sample from a known universe of reef fish vessels. Personal interviews were conducted to ensure that representative samples were collected for each stratum. The resulting sample data was representative of a random sample and operating cost and net revenue estimates for these two fisheries were statistically unbiased. While fisherman confidentiality prevents a direct comparison to logbook data the resulting estimates are unbiased and can be easily extended to the universe of vessels provided the survey questionnaire reflects the data collected in the logbook data base.

Pilot Study Activities

The pilot study includes three major activities. The first is a stratified random sample survey of summer flounder permit holders in eleven states. Two major types of strata will be used, major gear type and a dichotomized size-of-boat measure. During each year of the three-year pilot study the enumerators will survey each state four times in different seasons and ask questions based on a specific recent trip. These questions will be asked of randomly selected respondents who have been chosen from pools determined by major gear type and the size-of-boat. As stated above, when we move beyond the pilot stage and begin the actual ACCSP implementation the time between these visits would be much longer, on the order of 9 to 15 months, but they would still be designed so that ports are visited during different seasons.

The second major activity is the field testing of the survey questions in areas not covered by the summer flounder permit database. The summer flounder fishery ranges from Maine to North Carolina, in this area the pilot survey will uncover any social or cultural problems with the wording of the questions. The potential for such problems needs to be explored in other ACCSP areas. This will be done in six ports: one rural and one urban port in Maine, northern Florida and southern Florida. This activity will be restricted to testing the questions on a selection of fishermen and will not involve taking a sample or gathering usable data. Nine respondents will be interviewed.

Focusing on a single fishery

Coast wide vessel registration and an ACCSP logbook system are not yet in place. We will focus our efforts on the summer flounder fishery because it is one of only a few fisheries on the East Coast that has a complete license frame, a system of trip level reporting and crosses a large number of states. Summer flounder permits exist from Maine to Texas; active vessels holding summer flounder permits have recorded landings in all states from Maine to South Carolina and employ most major gear types. Crossing these strata will allow this pilot study to test the statistical design of a larger ACCSP socioeconomic data collection program. This is not a summer flounder study rather the summer flounder fishery offers the best and most manageable opportunity to test our program design.

Why Summer Flounder

We chose summer flounder as a prototype fishery for the following reasons:

- 1) Good logbook information exists.
- 2) The sampling frame (the permit data base) covers a large geographical area including both the northeast and southeast regions. It also includes people fishing in both federal and state waters.
- 3) The sampling frame covers a very heterogeneous fleet that fishes for a number of species other than just summer flounder.
- 4) The sampling frame includes party and charter boats (PCBs)
- 5) The sampling frame is of a manageable size.
- 6) Focusing on summer flounder will provide data that addresses current management concerns in that fishery.

Sampling considerations

As a rule of thumb, 30 degrees of freedom are a minimum for making valid comparisons between cells in a stratification model. The relevant formula is $N = \text{Cells} - 1 + 31$, where N is the total sample size and cells is the product of the number of strata in each classification. In our design this means the product of size classification and gear-types because ports and seasons are built into the data gathering scheme.

A statistician was consulted for the final sample size and study design parameter. The sample size and criteria used for the selected from strata are presented above in section B. Collection of Information Employing Statistical Methods, 1. Study Respondent Universe - Description of sample frame and panel selection (page 9).

Personnel Model

We envision the summer flounder data gathering for the pilot study being carried out by one full time professional who will hire local people as enumerators in each state. This professional will need at least a master degree in a social science discipline and experience both survey methodology and face-to-face interviewing. The temporary employees will be residents of

fishing communities in the state or other people with extensive experience in commercial fishing.

The preferred alternative for the public relations and data gathering work for the summer flounder fishery is a contract with a research firm or individual coordinated by the ASMFC. This alternative recommends itself because of lower overhead, direct coordination with both the subcommittee and the ACCSP data processing and IT program manager. Other possible alternatives are contracting this work through 1) NMFS, which raises OMB problems, 2) Cooperative Marine Education and Research Programs (CMER), which may be made more difficult by higher overhead and the general lack of interest by academics in running a long term data collection effort without having control of content, or 3) an individual partner such as a state or the FWS if one expresses interest. Field testing of questions for the summer flounder efforts, and training the data gathering teams, will be carried out by members of the subcommittee. Equipment will be acquired by the ASMFC and loaned to the summer flounder data gathering contractor for the duration of the data gathering effort.

Note: Subsequent to this proposal, the National Marine Fisheries Service was selected as the contractor for the conduct this Pilot study.

References

- Deseran, Forest A. (1997). "Louisiana Shrimp Fishermen and Local Economies: A Survey." Louisiana Sea Grant College, January.
- Gates, John and A. Holsen (1982). Title Unknown. Sea Grant contract, University of Rhode Island, Kingston, RI.
- Georgianna, Daniel L. , Alan Cass, and Keith Brough (1998). "The Cost of Hook Fishing for Groundfish in Northeastern United States." Cooperative Marine Education and Research Program, National Marine Fisheries Service, Contract Number NA67FE0420, University of Massachusetts Dartmouth, North Dartmouth, MA, September, 99 pp.
- Hamilton, Marcia. (1998). "Cost-Earnings Study of Hawaii's Charter Fishing Industry, 1996-1997." SOEST 98-08, JIMAR Contribution 98-322,. 109 pp.
- Hamilton, Marcia and Stephen Huffman (1997). Cost-Earnings Study of Hawaii's Small Boat Fishery, 1995-1996. " SOEST 97-06, JIMAR Contribution 97-314, 104 pp.
- Hamilton, Marcia S. , Rita E. Curtis, and Michael D. Travis (1996). "Cost-Earnings Study of the Hawaii-Based Domestic Longline Fleet." SOEST 96-03, JIMAR Contribution 96-300, Pelagic Fisheries Research Program, Joint Institute for Marine and Atmospheric Research, 1000 Pope Road, Honolulu, HI, 59 pp.
- Lallemand, Philippe, J. M. Gates, Joel Dirlam, and Jung Hee Cho (1998). "The Costs of Small Trawlers." Final report, Department of Environmental & Natural Resource Economics, University of Rhode Island, Kingston, RI, March, 54 pp.
- Larkin, Sherry L. , Donna Lee, and Charles Adams (1998). "Costs, Earnings, and Returns to the U. S. Atlantic Pelagic Longline Fleet in 1996." SP98-9, Staff Paper Series, Food and Resource Economics Department, University of Florida, Gainesville, FL, June, 44 pp.
- McCay, Bonnie J. and Jonathan S. O'Neil (1998). "Social and Economic Characteristics of the Maine Party and Charter Boat Industry." The Ecopolicy Center for Agriculture, the Environment, and Resource Issues, New Jersey Agricultural Experiment Station, Cook College, Rutgers, The State University of New Jersey.
- McCay, Bonnie, Jonathan O'Neil, and James Velcheck (1999). "Social and Economic Characteristics of the New Jersey Party and Charter Boat Industry." Draft Report, New Jersey Agricultural Experiment Station/Cook College, Rutgers, The State University of New Jersey.

McCay, Bonnie, Jonathan O'Neil, and James Velcheck (1999). "Social and Economic Characteristics of the New York Party and Charter Boat Industry. " Draft Report, New Jersey Agricultural Experiment Station/Cook College, Rutgers, The State University of New Jersey.

Rhodes, Raymond and Kenneth Backman (1997). "Socio-Demographic Assessment of Commercial Reef Fisherman in the South Atlantic Region. " MARFIN No. NA57FF0059. Feb.

Walker, Julie (1997). "Sociology of Hawaii Charter Boat Fishing. " SOEST 97-02, JIMAR Contribution 97-309, 50 pp.

Ward, John M. , Teofilo Ozuna, and Wade L. Griffin (1995). "Cost and Revenues in the Gulf of Mexico Shrimp Fishery. " NOAA Technical Memorandum NMFS-SEFSC-371, National Marine Fisheries Service, Southeast Regional Office, Economics and Trade Analysis Division, 9721 Executive Center Drive, North, St. Petersburg, FL, May, 76 pp.

Ward, John M. and James M. Nance (1994). "1994 Upadte to the Stock Assessment and Fishery Evaluation (SAFE) Report for the Gulf of Mexico Shrimp Fishery. " National Marine Fisheries Service, Southeast Regional Office, 9721 Executive Drive, North, St. Petersburg, FL.

Waters, James R. , Raymond J. Rhodes, and Robert Wiggers (1997). "Description of Economic Data Collected With a Random Sample of Commercial Reef Fish Boats in the Florida Keys. " U. S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, 101 Piver's Island Road, Beaufort, NC 28516 and South Carolina Department of Natural Resources, Marine Resources Division, Office of Fisheries Management, P. O. Box 12559, Charleston, SC, October, 117 pp.

Waters, James R. , Raymond J. Rhodes, Wayne Waltz, and Robert Wiggers (1997). "An Economic Survey of Commercial Reef Fish Boats Along the U. S. South Atlantic Coast. " U. S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, 101 Piver's Island Road, Beaufort, NC 28516 and South Carolina Department of Natural Resources, Marine Resources Division, Office of Fisheries Management, P. O. Box 12559, Charleston, SC, November, 117 pp.

Wilen, J. , Chen, T, and F. Homans (1991). "Fishermen and Labor Markets: Participation, Earnings, and Alternatives in Pacific Coast Fisheries. " NMFS Contract No. 50-ABNF-6-0016, Aug. 1991.

Attachment 2

**Commercial Harvester Pilot Study Draft Study Instrument
and
Respondent Information Handout**

SURVEY INSTRUMENT FOR THE ACCSP COMMERCIAL VESSEL SURVEY. THIS INSTRUMENT IS DESIGNED TO BE USED IN A PANEL STUDY OF FOUR WAVES PER YEAR OVER THREE YEARS.

IT IS DIVIDED INTO FOUR SECTIONS.

SECTION I DEALS WITH VARIABLE COSTS AND CREW INFORMATION AND IS TO BE ADMINISTERED TO THE CAPTAIN OF THE VESSEL FOR EACH OF THE FOUR SELECTED TRIPS EACH YEAR OF THE STUDY. THE INTERVIEWED TRIP SHOULD BE THE MOST RECENT FOR WHICH THE REQUIRED INFORMATION IS AVAILABLE. COOPERATION AND APPROVAL BY THE VESSEL OWNER MUST BE OBTAINED FIRST!

SECTION II IS TO BE ADMINISTERED ON ONE OF THE FOUR SECTION I SURVEYS TO THE CAPTAIN AND CREW WHO WERE PRESENT ON THE VESSEL DURING THAT TRIP AND THE OWNER OF THE VESSEL (OWNER CAN BE INTERVIEWED WHEN THE FIXED COST SURVEY IS ADMINISTERED). COOPERATION AND APPROVAL BY THE VESSEL OWNER MUST BE OBTAINED FIRST!

SECTION III DEALS WITH FIXED COSTS AND IS TO BE ADMINISTERED TO AN OWNER OF THE VESSEL AT THE END OF THE FIRST YEAR OF THE PANEL STUDY

SECTION IV DEALS WITH FIXED COSTS AND IS TO BE ADMINISTERED TO AN OWNER OF THE VESSEL AT THE END OF THE SECOND AND THIRD YEARS OF THE PANEL STUDY. ENUMERATORS WILL HAVE ANSWERS TO PREVIOUS YEAR'S QUESTIONNAIRE.

ENUMERATOR INSTRUCTIONS ARE IN RED CAPITAL LETTERS. ALL OTHER TEXT IS TO BE READ TO THE RESPONDENT.

IMPORTANT!!!!: DO NOT LEAVE BLANK QUESTIONS, THEY ARE EASY TO MISINTERPRET!

CODE COSTS NOT NORMALLY INCURRED AS "N/A" (NOT APPLICABLE).

CODE COSTS NORMALLY INCURRED BUT ZERO THIS YEAR OR TRIP AS "0".

WHEN IN DOUBT, WRITE A NOTE.

COMMERCIAL HARVESTER AND RECREATIONAL PARTY AND CHARTER BOATS SOCIOCULTURAL AND ECONOMIC DATA COLLECTION PILOT STUDY

Respondent Information Handout

OMB Control # 0648-0400 Expires 6/30/2003

The fishing industry has said, for some time now, that it is imperative to consider sociological, cultural, and economic factors when fishery management plans are being considered. This, in fact, is required under the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265). It is for this reason that the Atlantic Coast Cooperative Statistics Program (ACCSP) has organized a research staff to design an information gathering system to collect social, economic and cultural data from commercial harvester and recreational Party and Charter Boats of East Coast marine fisheries. This is one component of ACCSP which is a much broader cooperative effort between state and federal fisheries agencies designed to streamline all fisheries data collection including effort, landings, and biological information.

These data are important to sound management of marine fisheries. This effort is designed to ensure that social and economic information and analyses are available to fisheries managers so they can consider these factors when making regulatory decisions. Without this information, it is difficult for them to measure the economic and social consequences of their decisions.

Your participation is strictly voluntary. Additionally, Notwithstanding any other provision of the law, no person is required to respond to, nor shall any person be subject to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

The three parts of the survey are:

- I Questions about the cost of taking a particular trip are asked of the captain. Four trips, one for each season will, be surveyed.
- II Questions about social and cultural characteristics are asked of all crew present on the vessel during the selected trip. Only one trip per year is selected for this part of the survey. The owner is also asked to complete this survey once per year.
- III Questions about other business costs are asked of the owner at the end of each year.

Individual surveys will not be made public. Coded forms will be used to record your responses such that only our research staff can decipher who this information is associated with. Confidentiality of this information is mandated by Section 402(b) of the Magnuson-Stevens Fishery Conservation and Management Act and NOAA Administrative Order 216-100, "Confidentiality of Fishery Statistics".

The individual interviews should take approximately 15 to 20 minutes of your time. Please contact Dr. John Witzig or Dr. Earl Meredith for comments concerning the time burden of this study or any other questions or comments that you have. (978) 281-9276

**COMMERCIAL HARVESTER AND RECREATIONAL PARTY AND CHARTER BOATS
SOCIOCULTURAL AND ECONOMIC
DATA COLLECTION PILOT STUDY**

INTERVIEW INTRODUCTORY STATEMENT

Greetings. The fishing industry has said, for some time now, that it is imperative to consider sociological, cultural, and economic factors when fishery management plans are being considered. This, in fact, is required under the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265). It is for this reason that the Atlantic Coast Cooperative Statistics Program (ACCSP) has organized a research staff to design an information gathering system to collect social, economic and cultural data from commercial harvester and recreational Party and Charter Boats of East Coast marine fisheries. This is one component of ACCSP which is a much broader cooperative effort between state and federal fisheries agencies designed to streamline all fisheries data collection including effort, landings, and biological information.

These data are important to sound management of marine fisheries. This effort is designed to ensure that social and economic information and analyses are available to fisheries managers so they can consider these factors when making regulatory decisions. Without this information, it is difficult for them to measure the economic and social consequences of their decisions. I am here today to talk to you about your job in fishing

IF TALKING TO OWNER OR CAPTAIN ADD:

I'd also like to ask you about the cost of operating your fishing business.

IF THE CAPTAIN IS ALSO THE OWNER SAY:

Thank you for agreeing to participate in this survey.

IF THE CAPTAIN IS NOT THE OWNER SAY:

The owner of this vessel has agreed to participate in this study and has given me his permission to ask you these questions.

THEN:

The set of questions I'm going to ask you now is one part of a three part survey. The three parts of the survey are:

- I Questions about the cost of taking a particular trip are asked of the captain. Four trips, one for each season will, be surveyed.
- II Questions about social and cultural characteristics are asked of all crew present on the vessel during the selected trip. Only one trip per year is selected for this part of the survey. The owner is also asked to complete this survey once per year.
- III Questions about other business costs are asked of the owner at the end of each year.

We will only use this data for research purposes. Individual surveys will not be made public. I am using a coded form to record your responses such that only our research staff can decipher this information. This interview should take approximately 15 to 20 minutes of your time. Are you ready to get started?

Section I

SECTION I DEALS WITH VARIABLE COSTS AND CREW INFORMATION AND IS TO BE ADMINISTERED TO THE CAPTAIN OF THE VESSEL FOR EACH OF THE FOUR SELECTED TRIPS EACH YEAR OF THE STUDY. COOPERATION AND APPROVAL BY THE VESSEL OWNER MUST BE OBTAINED FIRST!

PRE-CODED INFORMATION

1. Vessel's USCG or state hull identification number: _____ EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS VESSEL ONLY

2. Trip start date: _____

Vessel trip report number: _____

EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS TRIP ONLY

3. Respondent's name _____

4. Respondent's address _____

5. Respondent's telephone number _____

First , I would like to ask you about the cost of operating this vessel during this trip. This next set of questions is about how much it costs to operate the vessel regardless of who pays the expense. Questions about how the crew might pay some of the expenses are asked later.

FILL OUT THE FOLLOWING TABLE

	Quantity used this trip	Unit	Price per unit
6. Fuel			
7. Oil/lubrication			
8. Water			
9. Ice			PRICE OF ICE WILL BE ASKED BELOW
10. Supplies (e.g., hooks, twine, chains, shackles, knives, etc. For party/charter boats include hooks, lines, lures, and sinkers but not rods, and reels) LIST SUPPLIES BELOW:			

11. Do you manufacture some or all of the ice you use? **CIRCLE ONE:**

Yes ==> **GO TO QUESTION 12**

No ==> **GO TO QUESTION 14**

12. Is manufactured ice a shared expense when calculating crew share?

CIRCLE ONE: Yes

No ==> **GO TO QUESTION 14**

13. What price per unit do you charge for the ice you manufacture? \$ _____

14. What price per unit do you pay for the ice you buy? **(IF ALL ICE IS MANUFACTURED ON THE VESSEL, THEN ANSWER IS N/A)** \$ _____

15. How much were your total costs for food/groceries ? **(IF THIS IS A PARTY/CHARTER TRIP, EXPLAIN THAT THIS EXPENSE CAN BE FOR FOOD SOLD TO CUSTOMERS)**

\$ _____

16. What species of bait did you use?

species code 1 _____

species code 2 _____

species code 3 _____

IF NO BAIT USED GO TO Q22

17. How much of your bait did you catch yourself? **CIRCLE ONE:** None Some All==>
IF ALL THEN GO TO Q21

18. Was the purchased bait fresh or frozen? **CIRCLE ONE :** Fresh Frozen

19. What quantity of bait did you purchase?

species 1 _____ units (barrel, pound, etc) _____

species 2 _____ units (barrel, pound, etc) _____

species 3 _____ units (barrel, pound, etc) _____

20. How much did you pay per unit for bait?

species 1 \$ _____

species 2 \$ _____

species 3 \$ _____

21. Aside from crew share, how much did you pay for baiting labor, for example, what did you pay to have hooks or traps baited? \$ _____

22. Aside from crew share, what payment did you make to process fish onboard? This could include either additional labor costs or related supplies. \$ _____

23. Aside from crew share, what payment did you make to grade, unload, sell, or otherwise get the catch off of your vessel (questions about transportation costs will be asked shortly)?
\$ _____

24. How much did you pay someone else to transport this trip's catch to market or buyer? \$ _____
==> IF ZERO GO TO Q26

25. What unit is the transportation charge based on (e.g., per pound, percentage of value, per container)? **HAVE R DEFINE CONTAINER SIZE** _____

26. How much did you pay for onshore processing/holding costs such as cold storage rental, pounding/carring fee, or costs of any onshore processing of catch before it is sold?
\$ _____

27. What repair and/or maintenance expenses did you incur on this trip?
\$ _____

IF THIS TRIP WAS TAKEN BY ONE PERSON WHO IS ALSO THE OWNER OF THE VESSEL, THEN GO TO QUESTION 34.

QUESTIONS 28 THROUGH 33 ARE ABOUT HOW THE CREW GETS COMPENSATED

28. For crew members paid a share of catch value, what type of crew share system was used?

CHECK ONE:

Trip expenses are taken off the top and then the proceeds divided between the boat and crew.

Proceeds are divided first between crew and boat and then certain expenses taken out of the crew share before the crew is paid.

29. What is the split of proceeds between the boat and the crew (including the captain) in percentage terms?

_____ % boat _____ % crew

30. What trip expenses are subtracted in calculating the payment to the crew?

MARK ALL EXPENSES THAT ARE DEDUCTED, PROVIDE DESCRIPTION AND DOLLAR AMOUNTS FOR ALL "OTHER" EXPENSES (OTHER EXPENSES COULD INCLUDE SUPPLIES SUCH AS HOOKS, GLOVES, ETC. OR EVEN EXPENSES SUCH AS VESSEL INSURANCE)

Fuel ___ Oil/lubrication ___ Bait ___ Ice ___ Water ___
Food/Groceries ___

DOUBLE CHECK IF FOOD/GROCERIES ARE PURCHASED BY THE CREW BEFORE THE TRIP. IF SO, FOOD/GROCERIES IS CHECKED.

Description of other expense	Cost (if not provided elsewhere)
	\$
	\$
	\$
	\$
	\$
	\$

FOR THIS NEXT SET OF QUESTIONS COULD YOU PLEASE DESCRIBE EACH INDIVIDUAL'S JOB ON THIS TRIP (INCLUDING YOURSELF), HOW THEY ARE PAID (THEIR SHARE OR RATE), WHETHER THEY WERE PAID A BONUS AND THE TYPE, FINALLY IF AND HOW THEY ARE RELATED TO ANY OTHER CREW MEMBER(S) OR THE OWNER. BEGINNING WITH YOU, HOW WOULD YOU DESCRIBE YOUR ROLE OR JOB ON THIS TRIP?

31. CREW SHARE TABLE

Role/Job	Payment Code	Percent Crew Share	Payment Per Unit OR Wage Rate	Unit Code	Bonus Amount	Bonus Type	Related to Other Crew Member?	Relationship Description
USE R'S WORDS, PROBE FOR DETAILS	USE CODE	PAYMENT TYPE 1 ONLY		PAYMENT TYPE 2 ONLY	\$ or %	USE CODE	INDICATE CREW MEMBER'S JOB	
		%	\$					
		%	\$					
		%	\$					
		%	\$					
		%	\$					
		%	\$					

PAYMENT CODES:
 1 = share of catch value
 2 = share per catch unit
 3 = hourly rate
 4 = daily rate
 5 = trip rate
 6 = per passenger

UNIT CODES:
 LB = pounds
 PF = per fish
 HLB = hundred pounds
 TLB = thousand pounds
 HCT = hundred count
 TCT = thousand count

BONUS TYPE:
 1 = fixed amount per trip
 2 = % of gross receipts
 3 = % of boat share
 4 = % of crew share
 5 = Other (describe)

BBT = bushel/basket/tote **HOW MANY POUNDS?** _____

32. If your crew share system is different from any of the above please describe it to me.

33. Regardless of the crew share system, how much was the total amount paid to the crew, including the captain, on this trip? \$ _____

INDICATE WITH "DON'T KNOW NOW" IF THIS AMOUNT IS UNKNOWN AT TIME OF INTERVIEW

34. ASK THIS QUESTION IF THIS IS A PARTY/CHARTER TRIP, OTHERWISE ENTER "N/A":

What was the cost of consumer goods (not including food), such as t-shirts and hats, sold to customers?
\$ _____

35. Please describe any other trip costs incurred (such as items used, even though they may have been paid for at another time) on this trip and not accounted for above. **DO NOT INCLUDE REELS AND RODS FOR PARTY/CHARTER BOATS**

Other trip cost description	Quantity	Unit cost
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$
		\$

36. How much were the total trip related costs (including labor costs) incurred on this trip?

\$ _____

ASK QUESTIONS 37 - 42 IF THIS IS A PARTY/CHARTER TRIP, OTHERWISE ENTER "N/A":

37. For this trip, what were your total receipts from the sale of consumer goods such as t-shirts and hats?
\$ _____

38. What were your total receipts from passenger fees (party boat)? \$ _____

39. What were your total receipts from chartering your boat? \$ _____

40. What were your total receipts from the sale of food? \$ _____

41. What were your total receipts for cleaning fish? \$ _____

42. What were your total receipts from additional gear rentals that were not included as part of passenger fees?
\$ _____

Section II

SECTION II IS TO BE ADMINISTERED ON ONE OF THE FOUR SECTION I SURVEYS TO ALL PEOPLE WHO WERE PRESENT ON THE VESSEL DURING THAT TRIP AND THE OWNER OF THE VESSEL (OWNER CAN BE INTERVIEWED ALONG WITH THE FIXED COST SURVEY) . COOPERATION AND APPROVAL BY THE VESSEL OWNER MUST BE OBTAINED FIRST!

PRE-CODED INFORMATION

1. Vessel's USCG or state hull identification number: _____ **EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS VESSEL ONLY**

2. Trip start date: _____

Vessel trip report number: _____

EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS TRIP ONLY

3. Role/job of this person as specified in the crew share table in Section I (Question 31)

4. Respondent's name _____

5. Respondent's address _____

6. Respondent's telephone number _____

7. What job did you have during this trip? **(Let R describe role in own words.)**

8. Date of birth (mm/dd/yy)? _____

9. What grade did you complete before leaving school?

CIRCLE ONE:

1 2 3 4 5 6 7 8 9 10 11 12

Some post-secondary school but no degree

Completed Vocational School

Associate's Degree

Bachelor's Degree

Graduate or professional degree

10. What is your marital status? **CIRCLE ONE:**

Never Married

Now Married

Cohabiting

Separated

Widowed

Divorced

PLEASE ASK BOTH QUESTIONS 11 AND 11a:

11. Are you Spanish/Hispanic/Latino? **ENTER NUMBER FROM LIST** _____

1 No, not Spanish/Hispanic/Latino

2 Yes, Mexican, Mexican American, Chicano

3 Yes, Puerto Rican

4 Yes, Cuban

5 Yes, other Spanish/Hispanic/Latino _____

6 Don't know

7 Refused

11a. What is your race? **MAY CHOOSE ONE OR MORE CATEGORIES.**
ENTER NUMBER(S) FROM LIST _____

1 White

2 Black, African American, or Negro

3 American Indian or Alaska Native

4 Asian Indian

5 Chinese

6 Filipino

7 Japanese

8 Korean

9 Vietnamese

10 Other Asian _____

11 Native Hawaiian

12 Guamanian or Chamorro

13 Samoan

14 Other Pacific Islander _____

15 Some other race _____

16 Don't know

17 Refused

12. How would you categorize your general health? **CIRCLE ONE:**

a) excellent b) very good c) good d) not very good e) poor

12a. Do you have health insurance for yourself? Yes ____ No ____

12b. Do you have health insurance for your family? Yes ____ No ____

13. What language do you speak at home? (CIRCLE ONE)

- a) English b) Spanish c) German d) French e) Portuguese
f) Korean g) Italian h) Chinese i) Greek j) Vietnamese
k) Other (please specify) _____

14. How well would you say you speak English?

- CIRCLE ONE: a) Not at all b) Not very well c) Pretty well d) Fluently

15. How well would you say you read English?

- CIRCLE ONE: a) Not at all b) Not very well c) Pretty well d) Fluently

16. Who manages your household finances? CIRCLE ONE:

- a) primarily you b) primarily your spouse
c) you share the task equally d) other _____

17. Are you supporting any children or adults outside your household right now? (for example, child support, alimony, college students)

- CIRCLE ONE: Yes==> if yes, how many? _____ No _____

18. How long have you lived in your community? _____ years

19. Do you own your own home, rent, live on the boat, or live at with your parents? CHECK ONE

- _____ Own _____ Rent _____ Live on boat _____ Live with parents

20. Do you consider yourself to be a religious person?

- CIRCLE ONE: Yes==> GO TO Q20a No==> GO TO Q21

20a. Which type(s) of religious organization(s) are you affiliated with? **CIRCLE ONE:**

a) local Catholic church

e) local non-denominational church

b) local Protestant church

f) other local religious organization

what organization _____

c) local Orthodox church

g) regional or national religious organization

d) local Jewish congregation

what organization _____

20b. Are you an active member in any of these organizations?

CIRCLE ONE: Yes ==> Which one? **ENTER LETTER(S):** _____
No

21. Do you belong to any fishing-related organizations?

CIRCLE ONE: Yes ==> **GO TO Q21a** No ==> **GO TO Q22**

21a. Which fishing organizations?

21b. Is one of these organizations a fishermen's cooperative where you get money back at the end of the year as a discount for purchasing fishing related goods and services?

CIRCLE ONE: Yes No

22. How many years have you been in commercial fishing (including the for-hire sector)? _____ years

23. Please list those persons who live in your household and whether she or he is involved in the fishing industry or does any fishing related work. **IF CHILD AND NO OCCUPATION THEN N/A**

Relation to You	Involved in fishing industry or work?	What type of fishing related work?	Occupation
	Y or N		
	Y or N		
	Y or N		
	Y or N		
	Y or N		
	Y or N		
	Y or N		
	Y or N		

24. From the following categories, which one best represents your annual household income?
PLEASE SHOW INCOME CARD TO THE R AND HAVE THEM CHOOSE ONE

- 1__ \$0-15,599
- 2__ \$15,600-31,199
- 3__ \$31,200-46,799
- 4__ \$46,800-62,399
- 5__ \$62,400-77,999
- 6__ \$78,000-93,599
- 7__ \$93,600-109,199
- 8__ \$109,200-123,799
- 9__ \$124,800-139,999
- 10__ >\$140,000
- ____ Don't know
- ____ Refused

25. What percent of your household's annual income come from the fishing vs. non-fishing activities?

fishing _____ %
 non-fishing _____ %

FISHING AND NON-FISHING PERCENTAGES SHOULD ADD TO 100%

26. What was your household's main source of income (fishing or non-fishing) last

Spring _____

Summer _____

Fall _____

Winter _____

27. What percentage of your fishing related income (not revenue) came from each of the fisheries in which you participated? Define fishery based on gear and Fishery Management Plan. Examples of fisheries might be: groundfish bottom trawl, groundfish party boat, scallop dredge, herring purse seine, etc. If you receive income

from other non-harvest fishing related activities, such as supplying fishing related products and services, fish processing, or being a fish dealer, please include that as fishing related income and tell me what percent of your total fishing related income it represents. Please do not include as income any money received from being a member of a fishing related cooperative where you purchase inputs.

PLEASE FILL IN THE FOLLOWING TABLE

Fishery description	Percent of fishing related income
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
_____	_____ %
Non-harvest fishing related income	
_____	_____ %
_____	_____ %
_____	_____ %

HARVEST AND NON-HARVEST PERCENTAGES SHOULD ADD TO 100%

28. Have you ever worked outside the fishing industry?

CIRCLE ONE: Yes==> GO TO Q28a No==> GO TO Q29

28a. Please list the most important other jobs you have held

Job	Number of years you worked at this job
_____	_____
_____	_____
_____	_____

29. If you were not fishing what do you think you would do for a living?

29a. What do you think you could earn compared to what you currently earn?

CIRCLE ONE: (1) much less (2) less(3) same (4) more (5) much more

30. Would you advise a young person to go into the fishing business?

CIRCLE ONE: Yes No

31. Would you advise your children to go into the fishing business?

CIRCLE ONE: Yes No

32. How would you rate state fishing policies and regulations with regard to conserving fish stocks and habitat?

CIRCLE ONE: Excellent Good Average Poor Negligent

33. How would you rate federal fishing policies and regulations with regard to conserving fish stocks and habitat?

CIRCLE ONE: Excellent Good Average Poor Negligent

Section III

SECTION III DEALS WITH FIXED COSTS AND IS TO BE ADMINISTERED TO AN OWNER OF THE VESSEL AT THE END OF THE FIRST YEAR OF THE PANEL STUDY.

PRE-CODED INFORMATION

1. Vessel's USCG or State Hull Identification Number: _____ **EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS VESSEL ONLY**

2. Respondent's name _____

3. Respondent's address _____

4. Respondent's telephone number _____

PRIOR TO THE INTERVIEW, DETERMINE THE MOST RECENT FISCAL YEAR IN WHICH THE RESPONDENT HAS RECORDS AVAILABLE TO ANSWER QUESTIONS ABOUT HOW MUCH PARTICULAR BUSINESS EXPENSES COST PER YEAR. MOST OFTEN, THIS WILL BE THE MOST RECENT TAX RETURN.

5. The beginning of the fiscal year for which you will be providing answers to the following questions about certain yearly expenses is what date? ____/____/____ **EXPLAIN THAT ALL SUBSEQUENT QUESTIONS ABOUT FIXED COSTS PERTAIN TO THE FISCAL YEAR JUST RECORDED**

6. What is the ownership type that best describes your business?
READ ALL OPTIONS BEFORE R RESPONDS. MARK R'S CHOICE WITH AN "X"

Sole proprietorship _____ ==> **GO TO Q10**
General partnership _____ ==> **GO TO Q8**
Limited partnership _____ ==> **GO TO Q8**
Corporation _____ ==> **GO TO Q7**

7. If your business is incorporated, what is the corporation type?

MARK ONE: "C" CORPORATION _____ "S" CORPORATION _____
LIMITED LIABILITY CORPORATION (LLC) _____

8. If a partnership or corporation, what are the number of members? _____ ==> **IF "1" GO TO Q 10**

9. If a partnership or corporation, please enter the number of members that fit the following description of the members' relationship

READ ALL OPTIONS BEFORE RESPONDING.

- Relative in household _____
- Non-relative in household _____
- Other relative _____
- Friend _____
- Business associate _____
- Other (describe) _____

Now I would like to ask you some information about your vessel

10. The year each of your propulsion engines was built was?

engine 1: _____ engine 2: _____ engine 3: _____

11. The year each of your propulsion engines was last rebuilt was?

engine 1: _____ engine 2: _____ engine 3: _____

12. What is the vessel's fuel capacity in gallons? _____

13. What types of electronic equipment, including gear mounted electronics, and how many of each do you have on your vessel?

COMPLETE THE FOLLOWING TABLE

Electronic equipment code (from code table)	Number of units

14. What types of onboard processing equipment and how many of each do you have on your vessel?

COMPLETE THE FOLLOWING TABLE

Processing equipment code (from code table)	Number of units

15. Did you buy a new vessel (including having it built) or did you purchase it from another owner or are you leasing the vessel from another owner?

MARK ONE: Purchased new vessel ____ ==>GO TO Q17
Purchased from other owner _____
Leasing vessel _____ ==>GO TO Q18

16. What year did you purchase the vessel? _____

17. What was the purchase price or cost to you to build vessel, including preparing it for fishing?
\$ _____

18. How much, if any, was the cost of major vessel improvements you have made since the time you purchased or built the vessel? Some examples of vessel improvements are: new fishing gear (**EXAMPLES: NEW DOORS, NEW NETS, NEW DREDGES**), new electronics, new or rebuilt engine, or new processing equipment. Please do not include routine maintenance expenses here.

\$ _____ **IF 0 GO TO Q20**

19. Please describe this (these) improvements, what each of them cost, and the year in which they were made.

FILL OUT THE FOLLOWING TABLE:

Improvement Description	Year	Cost	Approximate Useful Life

20. What would you estimate is the market value of your vessel? Estimate what you could reasonably expect to get for your vessel or what you might expect to pay for a vessel in similar condition, not what you would like to receive for your vessel. Please estimate its value if you were to sell the entire vessel with all its equipment, gear, permits, fishing history, etc.

\$ _____

21. What type of depreciation schedule do you use on your tax form? _____

21a. If you depreciate individual components of your vessel, please tell me the method used, the number of years depreciated, and the original cost (if not already provided in Question 19)?

Component EXAMPLES: HULL, ENGINE, FISHING GEAR, ETC.	Original Cost	Depreciation method EXAMPLE: STRAIGHT LINE	Number of years depreciated

Now I would like to ask you about some of your annual costs. Please answer the questions based on your last completed fiscal year. **CHECK TO MAKE SURE THAT THIS CORRESPONDS TO THE DATE GIVEN ABOVE IN QUESTION 5**

22. If your vessel was hauled-out this year, what did it cost to haul the vessel and do the required work? Also include any payments made to crew members for doing additional work not covered by their crew share.

\$ _____ **IF VESSEL NOT HAULED OUT, ENTER \$0 AND GO TO Q25**

23. Please describe what was done to the vessel during the haul-out.

24. What is the typical number of years between vessel haul-outs ? _____

25. How much were other repair/maintenance costs not including the costs reported above for vessel haul-out/improvements? \$ _____

26. How much did you pay for mooring/dockage fees including vessel security costs? If you belong to a fishing cooperative and get money back for being a member and purchasing inputs, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.

\$ _____ ==> **IF GREATER THAN ZERO, GO TO Q28**

27. If you don't pay anything for mooring/dockage, do you have an agreement with a dealer or processor that you will offload at their dock in exchange for this free service?

CIRCLE ONE: Yes No

28. How much do you pay for vessel insurance, including hull, protection and indemnity (P&I), other property insurance, and mortgage insurance? Please, do not include vessel owner health insurance or health insurance paid for crew/employees. \$ _____

29. How much were your costs for providing benefits to crew/employees? For example: your share of payments to health plans provided for your crew/employees? \$ _____

30. How much were your costs for fishing related business taxes including income tax, business property tax, or other business related taxes? Please, do not include fuel tax. \$ _____

31. In order to fish in various state and federal fisheries, you must typically apply for a state and/or federal license or permit.

a. What were the various permit/license application fees charged to this vessel (ONLY THE VESSEL, NOT TO INDIVIDUALS)?

FILL OUT FOLLOWING TABLE:

License/Permit Name	Annual Application Cost	State	Federal
		(CHECK ONE)	
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		

b. If you purchased any transferable limited entry permits this year, how much did you pay for each of them? (e.g. King Mackerel, Gulf of Mexico Reef Fish, Red Snapper 2000 pound trip limit License, Red Snapper 200 pound trip limit License, Unlimited South Atlantic Snapper-Grouper, South Atlantic Golden Crab, Swordfish Directed, Swordfish Handgear, Swordfish Incidental, Shark Directed, Shark Incidental)

FILL OUT FOLLOWING TABLE

Permit Name	Purchase price
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$

32. How much were your costs for other permit or license fees such as export/import permit fees, license renewals, documentation fees, registration fees, Coast Guard inspection fees, etc.? \$ _____

33. How much were your costs for the business use of vehicle and other travel costs? Please include cost to travel to fisheries management related meetings.

\$ _____

34. What professional fees did you pay for such things as accounting, legal work, or bookkeeping?

Service	Cost
	\$
	\$
	\$
	\$

35. What payments did you make to non-share crew or other onshore employees? For example, for cleaning services, shore captain, divers, grocery deliveries, office clerk, shoreside party/charter boat employees, etc.? Please do not include baiting labor costs or fees for professional services.

Payment type	Cost
	\$
	\$
	\$
	\$
	\$

36. How much did you pay to belong to business related organizations, cooperatives, fisheries organizations or the like. If you belong to a fishing cooperative and get money back for being a member, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.

\$ _____

37. How much were advertising costs such as costs to market catch or to promote recreational head boat/charter boat business? \$ _____

38. How much did you pay to rent or own (mortgage payment) onshore facilities? If you belong to a fishing cooperative and get money back for being a member, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.

Facility description	MARK WITH "X" IF RENT	MARK WITH "X" IF OWN	Monthly cost
			\$
			\$
			\$
			\$

39. Was your vessel used, even for as little as one trip, as a party or charter boat this year?

CHECK ONE: Yes _____ No _____ => **GO TO Q43**

40. What were your yearly expense for referral and/or booking fees? \$ _____

41. What were your yearly expenses for rods and reels for use or rental by your customers?
\$ _____

42. What is the maximum number of allowable passengers? _____

43. Did you have any other annual costs including fishing related fines?

Description	Cost
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

44. Now I would like to ask you about how you finance your business.

FILL OUT THE FOLLOWING TABLE

<u>Type of Loan</u>	<u>Total Duration of Loan (yrs)</u>	<u>Year loan was initiated</u>	<u>Interest Rate</u>	<u>Monthly Payment</u>	<u>Source: FOG, family, banks, etc.</u>
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____

45. The total fishing business expenses for this fiscal year were \$ _____

Section IV

SECTION IV DEALS WITH FIXED COSTS AND IS TO BE ADMINISTERED TO AN OWNER OF THE VESSEL AT THE END OF THE SECOND AND THIRD YEARS OF THE PANEL STUDY. ENUMERATORS WILL HAVE ANSWERS TO PREVIOUS YEAR'S QUESTIONNAIRE.

PRE-CODED INFORMATION

1. Vessel's USCG or State Hull Identification Number: _____ (EXPLAIN THAT ALL SUBSEQUENT QUESTIONS PERTAIN TO THIS VESSEL ONLY)

2. Respondent's name _____

3. Respondent's address _____

4. Respondent's telephone number _____

PRIOR TO THE INTERVIEW, DETERMINE THE MOST RECENT FISCAL YEAR IN WHICH THE RESPONDENT HAS RECORDS AVAILABLE TO ANSWER QUESTIONS ABOUT HOW MUCH PARTICULAR BUSINESS EXPENSES COST PER YEAR. MOST OFTEN, THIS WILL BE THE MOST RECENT TAX RETURN.

5. The beginning of the fiscal year for which you will be providing answers to the following questions about certain yearly expenses is what date? ____/____/____

EXPLAIN THAT ALL SUBSEQUENT QUESTIONS ABOUT FIXED COSTS PERTAIN TO THE FISCAL YEAR JUST RECORDED. ALSO MAKE SURE THAT THIS IS THE SAME VESSEL FOR WHICH RESPONSES WERE GIVEN LAST YEAR. IF NOT, THEN SECTION III QUESTIONNAIRE SHOULD BE USED

6. Has your business ownership status changed since interviewed last year?

CIRCLE ONE: Yes No ==> GO TO Q11

7. What is the ownership type that best describes your business?

READ ALL OPTIONS BEFORE R RESPONDS. MARK R'S CHOICE WITH AN "X"

- Sole proprietorship _____ ==> GO TO Q11
- General partnership _____ ==> GO TO Q9
- Limited partnership _____ ==> GO TO Q9
- Corporation _____ ==> GO TO Q8

8. If your business is incorporated, what is the corporation type?

MARK ONE: "C" CORPORATION _____ "S" CORPORATION _____
LIMITED LIABILITY CORPORATION (LLC) _____

9. If a partnership or corporation,
what are the number of members? _____ ==> IF "1" GO TO Q 11

10. If a partnership or corporation, please enter the number of members that fit the following description of the members' relationship

READ ALL OPTIONS BEFORE R RESPONDS.

Relative in household _____
Non-relative in household _____
Other relative _____
Friend _____
Business associate _____
Other (describe) _____

Now I would like to ask you some information about your vessel

11. Have you added or replaced any propulsion engines since interviewed last year?

CIRCLE ONE: Yes No ==> GO TO Q12

11a. Please review and update the year each of your propulsion engines was built?

engine 1: _____ engine 2: _____ engine 3: _____

12. Have you rebuilt any propulsion engines since interviewed last year?

CIRCLE ONE: Yes No ==> GO TO Q13

12a. Please review and update the year each of your propulsion engines was last rebuilt?

engine 1: _____ engine 2: _____ engine 3: _____

13. Has your vessel's fuel capacity changed since last year?

CIRCLE ONE: Yes No ==> GO TO Q14

13a. What is your vessel's current fuel capacity in gallons? _____

14. Have you added or removed electronic equipment, including gear mounted electronics, since last year?

CIRCLE ONE: Yes No ==> GO TO Q15

14a. What types of electronic equipment, including gear mounted electronics, and how many of each do you have on your vessel?

COMPLETE THE FOLLOWING TABLE

Electronic equipment code (from code table)	Number of units

15. Have you added or removed processing equipment since last year?

CIRCLE ONE: Yes No==> **GO TO Q16**

15a. What types of onboard processing equipment and how many of each do you have on your vessel?

COMPLETE THE FOLLOWING TABLE

Processing equipment code (from code table)	Number of units

16. What would you estimate is the market value of your vessel? Estimate what you could reasonably expect to get for your vessel or what you might expect to pay for a vessel in similar condition, not what you would like to receive for your vessel. Please estimate its value if you were to sell the entire vessel with all its equipment, gear, permits, fishing history, etc. \$ _____

17. Have there been any changes to your depreciation schedule you use on your tax form for your vessel?
CIRCLE ONE: Yes==>COMPLETE TABLE No==> GO TO Q18

Component EXAMPLES: HULL, ENGINE, FISHING GEAR, ETC.	Original cost	Depreciation method Example: straight line	Number of years depreciated
	\$		
	\$		
	\$		
	\$		
	\$		

Now I would like to ask you about some of your annual costs. Please answer the questions based on your last completed fiscal year **CHECK TO MAKE SURE THAT THIS CORRESPONDS TO THE DATE GIVEN ABOVE IN QUESTION 5**

18. If your vessel was hauled-out this year, what did it cost to haul the vessel and do the required work? Also include any payments made to crew members for doing additional work not covered by their crew share.
 \$ _____ **IF VESSEL NOT HAULED OUT, ENTER \$0 AND GO TO Q21**

19. Please describe what was done to the vessel during the haul-out.

20. What is the typical number of years between vessel haul-outs ? _____

21. How much were other repair/maintenance costs not including the costs reported above for vessel haul-out/improvements? \$ _____

22. How much did you pay for mooring/dockage fees including vessel security costs? If you belong to a fishing cooperative and get money back for being a member, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.
 \$ _____ **==> IF GREATER THAN ZERO, GO TO Q24**

23. If you don't pay anything for mooring/dockage, do you have an agreement with a dealer or processor that you will offload at their dock in exchange for this free service?

CIRCLE ONE: Yes No

24. How much do you pay for vessel insurance, including hull, protection and indemnity (P&I), other property insurance, and mortgage insurance? Please, do not include vessel owner health insurance or health insurance paid for crew/employees. \$ _____

25. How much, if any, was the cost of major vessel improvements? Some examples of vessel improvements are: new fishing gear (EXAMPLES: NEW DOORS, NEW NETS, NEW DREDGES), new electronics, new or rebuilt engine, or new processing equipment. Please do not include routine maintenance expenses here.
\$ _____ IF 0 GO TO Q27

26. Please describe this (these) improvements and how much each of them cost

FILL OUT THE FOLLOWING TABLE:

Improvement Description	Cost	Approximate useful life
	\$	
	\$	
	\$	
	\$	
	\$	

27. How much were your costs of providing benefits to crew/employees? For example: your share of payments to health plans provided for your crew/employees? \$ _____

28. How much were your costs for business taxes including income tax, business property tax, or other business related taxes? Please, do not include fuel tax. \$ _____

29. In order to fish in various state and federal fisheries, you must typically apply for a state and/or federal license or permit.

a. What were the various permit/license application fees charged to this vessel (**ONLY THE VESSEL, NOT TO INDIVIDUALS**)?

FILL OUT FOLLOWING TABLE:

License/Permit Name	Annual Application Cost	State	Federal
		(CHECK ONE)	
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		
	\$		

b. If you purchased any transferable limited entry permits this year, how much did you pay for each of them? (e.g. King Mackerel, Gulf of Mexico Reef Fish, Red Snapper 2000 pound trip limit License, Red Snapper 200 pound trip limit License, Unlimited South Atlantic Snapper-Grouper, South Atlantic Golden Crab, Swordfish Directed, Swordfish Handgear, Swordfish Incidental, Shark Directed, Shark Incidental)

FILL OUT FOLLOWING TABLE

Permit Name	Purchase price
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$
	\$

30. How much were your costs for other permit or license fees such as export/import permit fees, license renewals, documentation fees, registration fees, etc.? \$ _____

31. How much were your costs for the business use of vehicle and other travel costs? Please include cost to travel to fisheries management related meetings.

\$ _____

32. What professional fees did you pay for such things as accounting, legal work, or bookkeeping?

Service	Cost
	\$
	\$
	\$
	\$

33. What payments did you make to non-share crew or other onshore employees? For example, for cleaning services, shore captain, divers, grocery deliveries, office clerk, shoreside party/charter boat employees, etc.? Please do not include baiting labor costs or fees for professional services.

Payment type	Cost
	\$
	\$
	\$
	\$
	\$

34. How much did you pay to belong to business related organizations, cooperatives, fisheries organizations or the like. If you belong to a fishing cooperative and get money back for being a member, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.

\$ _____

35. How much were advertising costs such as costs to market catch or to promote recreational head boat/charter boat business? \$ _____

36. How much did you pay to rent or own (mortgage payment) onshore facilities? If you belong to a fishing cooperative and get money back for being a member, report this expense as you would on your tax return. That is, the cost less any adjustments for being a member of the cooperative.

Facility description	MARK WITH "X" IF RENT	MARK WITH "X" IF OWN	Monthly cost
			\$
			\$
			\$
			\$

37. Was your vessel used, even for as little as one trip, as a party or charter boat this year?

CHECK ONE: Yes ____ No ____ => GO TO Q41

38. What were your yearly expense for referral and/or booking fees? \$ _____

39. What were your yearly expenses for rods and reels for use or rental by your customers?
\$ _____

40. What is the maximum number of allowable passengers? _____

41. Did you have any other annual costs including fishing related fines?

Description	Cost
_____	\$ _____
_____	\$ _____
_____	\$ _____
_____	\$ _____

42. Now I would like to ask you about how you finance your business.

FILL OUT THE FOLLOWING TABLE

<u>Loan Description</u>	<u>Total Duration of Loan (yrs)</u>	<u>Year loan was initiated</u>	<u>Interest Rate</u>	<u>Monthly Payment</u>	<u>Source: FOG, family, banks, etc.</u>
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____
_____	_____	_____	_____ %	\$ _____	_____

43. The total fishing business expenses for this fiscal year were \$ _____

and management and that are identified on the basis of geographic, scientific, technical, recreational, or economic characteristics,” as distinguished from the Magnuson-Stevens Act’s second definition of fishery as “any fishing for such stocks.”

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 24229, May 1, 1998]

§ 600.310 National Standard 1—Optimum Yield.

(a) *Standard 1.* Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the OY from each fishery for the U.S. fishing industry.

(b) *General.* The determination of OY is a decisional mechanism for resolving the Magnuson-Stevens Act’s multiple purposes and policies, implementing an FMP’s objectives, and balancing the various interests that comprise the national welfare. OY is based on MSY, or on MSY as it may be reduced under paragraph (f)(3) of this section. The most important limitation on the specification of OY is that the choice of OY and the conservation and management measures proposed to achieve it must prevent overfishing.

(c) *MSY.* Each FMP should include an estimate of MSY as explained in this section.

(1) *Definitions.* (i) “MSY” is the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.

(ii) “MSY control rule” means a harvest strategy which, if implemented, would be expected to result in a long-term average catch approximating MSY.

(iii) “MSY stock size” means the long-term average size of the stock or stock complex, measured in terms of spawning biomass or other appropriate units, that would be achieved under an MSY control rule in which the fishing mortality rate is constant.

(2) *Options in specifying MSY.* (i) Because MSY is a theoretical concept, its estimation in practice is conditional on the choice of an MSY control rule. In choosing an MSY control rule, Councils should be guided by the characteristics of the fishery, the FMP’s objec-

tives, and the best scientific information available. The simplest MSY control rule is to remove a constant catch in each year that the estimated stock size exceeds an appropriate lower bound, where this catch is chosen so as to maximize the resulting long-term average yield. Other examples include the following: Remove a constant fraction of the biomass in each year, where this fraction is chosen so as to maximize the resulting long-term average yield; allow a constant level of escapement in each year, where this level is chosen so as to maximize the resulting long-term average yield; vary the fishing mortality rate as a continuous function of stock size, where the parameters of this function are constant and chosen so as to maximize the resulting long-term average yield. In any MSY control rule, a given stock size is associated with a given level of fishing mortality and a given level of potential harvest, where the long-term average of these potential harvests provides an estimate of MSY.

(ii) Any MSY values used in determining OY will necessarily be estimates, and these will typically be associated with some level of uncertainty. Such estimates must be based on the best scientific information available (see § 600.315) and must incorporate appropriate consideration of risk (see § 600.335). Beyond these requirements, however, Councils have a reasonable degree of latitude in determining which estimates to use and how these estimates are to be expressed. For example, a point estimate of MSY may be expressed by itself or together with a confidence interval around that estimate.

(iii) In the case of a mixed-stock fishery, MSY should be specified on a stock-by-stock basis. However, where MSY cannot be specified for each stock, then MSY may be specified on the basis of one or more species as an indicator for the mixed stock as a whole or for the fishery as a whole.

(iv) Because MSY is a long-term average, it need not be estimated annually, but it must be based on the best scientific information available, and should be re-estimated as required by changes in environmental or ecological

conditions or new scientific information.

(3) *Alternatives to specifying MSY.* When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY, to the extent possible. Examples include various reference points defined in terms of relative spawning per recruit. For instance, the fishing mortality rate that reduces the long-term average level of spawning per recruit to 30-40 percent of the long-term average that would be expected in the absence of fishing may be a reasonable proxy for the MSY fishing mortality rate. The long-term average stock size obtained by fishing year after year at this rate under average recruitment may be a reasonable proxy for the MSY stock size, and the long-term average catch so obtained may be a reasonable proxy for MSY. The natural mortality rate may also be a reasonable proxy for the MSY fishing mortality rate. If a reliable estimate of pristine stock size (i.e., the long-term average stock size that would be expected in the absence of fishing) is available, a stock size approximately 40 percent of this value may be a reasonable proxy for the MSY stock size, and the product of this stock size and the natural mortality rate may be a reasonable proxy for MSY.

(d) *Overfishing—(1) Definitions.* (i) “To overfish” means to fish at a rate or level that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(ii) “Overfishing” occurs whenever a stock or stock complex is subjected to a rate or level of fishing mortality that jeopardizes the capacity of a stock or stock complex to produce MSY on a continuing basis.

(iii) In the Magnuson-Stevens Act, the term “overfished” is used in two senses: First, to describe any stock or stock complex that is subjected to a rate or level of fishing mortality meeting the criterion in paragraph (d)(1)(i) of this section, and second, to describe any stock or stock complex whose size is sufficiently small that a change in management practices is required in order to achieve an appropriate level and rate of rebuilding. To avoid confu-

sion, this section uses “overfished” in the second sense only.

(2) *Specification of status determination criteria.* Each FMP must specify, to the extent possible, objective and measurable status determination criteria for each stock or stock complex covered by that FMP and provide an analysis of how the status determination criteria were chosen and how they relate to reproductive potential. Status determination criteria must be expressed in a way that enables the Council and the Secretary to monitor the stock or stock complex and determine annually whether overfishing is occurring and whether the stock or stock complex is overfished. In all cases, status determination criteria must specify both of the following:

(i) *A maximum fishing mortality threshold or reasonable proxy thereof.* The fishing mortality threshold may be expressed either as a single number or as a function of spawning biomass or other measure of productive capacity. The fishing mortality threshold must not exceed the fishing mortality rate or level associated with the relevant MSY control rule. Exceeding the fishing mortality threshold for a period of 1 year or more constitutes overfishing.

(ii) *A minimum stock size threshold or reasonable proxy thereof.* The stock size threshold should be expressed in terms of spawning biomass or other measure of productive capacity. To the extent possible, the stock size threshold should equal whichever of the following is greater: One-half the MSY stock size, or the minimum stock size at which rebuilding to the MSY level would be expected to occur within 10 years if the stock or stock complex were exploited at the maximum fishing mortality threshold specified under paragraph (d)(2)(i) of this section. Should the actual size of the stock or stock complex in a given year fall below this threshold, the stock or stock complex is considered overfished.

(3) *Relationship of status determination criteria to other national standards—(i) National standard 2.* Status determination criteria must be based on the best scientific information available (see §600.315). When data are insufficient to estimate MSY, Councils should base

status determination criteria on reasonable proxies thereof to the extent possible (also see paragraph (c)(3) of this section). In cases where scientific data are severely limited, effort should also be directed to identifying and gathering the needed data.

(ii) *National standard 3.* The requirement to manage interrelated stocks of fish as a unit or in close coordination notwithstanding (see § 600.320), status determination criteria should generally be specified in terms of the level of stock aggregation for which the best scientific information is available (also see paragraph (c)(2)(iii) of this section).

(iii) *National standard 6.* Councils must build into the status determination criteria appropriate consideration of risk, taking into account uncertainties in estimating harvest, stock conditions, life history parameters, or the effects of environmental factors (see § 600.335).

(4) *Relationship of status determination criteria to environmental change.* Some short-term environmental changes can alter the current size of a stock or stock complex without affecting the long-term productive capacity of the stock or stock complex. Other environmental changes affect both the current size of the stock or stock complex and the long-term productive capacity of the stock or stock complex.

(i) If environmental changes cause a stock or stock complex to fall below the minimum stock size threshold without affecting the long-term productive capacity of the stock or stock complex, fishing mortality must be constrained sufficiently to allow rebuilding within an acceptable time frame (also see paragraph (e)(4)(ii) of this section). Status determination criteria need not be respecified.

(ii) If environmental changes affect the long-term productive capacity of the stock or stock complex, one or more components of the status determination criteria must be respecified. Once status determination criteria have been respecified, fishing mortality may or may not have to be reduced, depending on the status of the stock or stock complex with respect to the new criteria.

(iii) If manmade environmental changes are partially responsible for a

stock or stock complex being in an overfished condition, in addition to controlling effort, Councils should recommend restoration of habitat and other ameliorative programs, to the extent possible (see also the guidelines issued pursuant to section 305(b) of the Magnuson-Stevens Act for Council actions concerning essential fish habitat).

(5) *Secretarial approval of status determination criteria.* Secretarial approval or disapproval of proposed status determination criteria will be based on consideration of whether the proposal:

(i) Has sufficient scientific merit.

(ii) Contains the elements described in paragraph (d)(2) of this section.

(iii) Provides a basis for objective measurement of the status of the stock or stock complex against the criteria.

(iv) Is operationally feasible.

(6) *Exceptions.* There are certain limited exceptions to the requirement to prevent overfishing. Harvesting one species of a mixed-stock complex at its optimum level may result in the overfishing of another stock component in the complex. A Council may decide to permit this type of overfishing only if all of the following conditions are satisfied:

(i) It is demonstrated by analysis (paragraph (f)(6) of this section) that such action will result in long-term net benefits to the Nation.

(ii) It is demonstrated by analysis that mitigating measures have been considered and that a similar level of long-term net benefits cannot be achieved by modifying fleet behavior, gear selection/configuration, or other technical characteristic in a manner such that no overfishing would occur.

(iii) The resulting rate or level of fishing mortality will not cause any species or evolutionarily significant unit thereof to require protection under the ESA.

(e) *Ending overfishing and rebuilding overfished stocks—* (1) *Definition.* A threshold, either maximum fishing mortality or minimum stock size, is being “approached” whenever it is projected that the threshold will be breached within 2 years, based on trends in fishing effort, fishery resource size, and other appropriate factors.

Fishery Conservation and Management

§ 600.310

(2) *Notification.* The Secretary will immediately notify a Council and request that remedial action be taken whenever the Secretary determines that:

- (i) Overfishing is occurring;
- (ii) A stock or stock complex is overfished;
- (iii) The rate or level of fishing mortality for a stock or stock complex is approaching the maximum fishing mortality threshold;
- (iv) A stock or stock complex is approaching its minimum stock size threshold; or
- (v) Existing remedial action taken for the purpose of ending previously identified overfishing or rebuilding a previously identified overfished stock or stock complex has not resulted in adequate progress.

(3) *Council action.* Within 1 year of such time as the Secretary may identify that overfishing is occurring, that a stock or stock complex is overfished, or that a threshold is being approached, or such time as a Council may be notified of the same under paragraph (e)(2) of this section, the Council must take remedial action by preparing an FMP, FMP amendment, or proposed regulations. This remedial action must be designed to accomplish all of the following purposes that apply:

- (i) If overfishing is occurring, the purpose of the action is to end overfishing.
- (ii) If the stock or stock complex is overfished, the purpose of the action is to rebuild the stock or stock complex to the MSY level within an appropriate time frame.
- (iii) If the rate or level of fishing mortality is approaching the maximum fishing mortality threshold (from below), the purpose of the action is to prevent this threshold from being reached.
- (iv) If the stock or stock complex is approaching the minimum stock size threshold (from above), the purpose of the action is to prevent this threshold from being reached.

(4) *Constraints on Council action.* (i) In cases where overfishing is occurring, Council action must be sufficient to end overfishing.

(ii) In cases where a stock or stock complex is overfished, Council action must specify a time period for rebuilding the stock or stock complex that satisfies the requirements of section 304(e)(4)(A) of the Magnuson-Stevens Act.

(A) A number of factors enter into the specification of the time period for rebuilding:

- (1) The status and biology of the stock or stock complex;
- (2) Interactions between the stock or stock complex and other components of the marine ecosystem (also referred to as “other environmental conditions”);
- (3) The needs of fishing communities;
- (4) Recommendations by international organizations in which the United States participates; and
- (5) Management measures under an international agreement in which the United States participates.

(B) These factors enter into the specification of the time period for rebuilding as follows:

(1) The lower limit of the specified time period for rebuilding is determined by the status and biology of the stock or stock complex and its interactions with other components of the marine ecosystem, and is defined as the amount of time that would be required for rebuilding if fishing mortality were eliminated entirely.

(2) If the lower limit is less than 10 years, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can result in the specified time period exceeding 10 years, unless management measures under an international agreement in which the United States participates dictate otherwise.

(3) If the lower limit is 10 years or greater, then the specified time period for rebuilding may be adjusted upward to the extent warranted by the needs of fishing communities and recommendations by international organizations in which the United States participates, except that no such upward adjustment can exceed the rebuilding period calculated in the absence of fishing mortality, plus one mean generation time

or equivalent period based on the species' life-history characteristics. For example, suppose a stock could be rebuilt within 12 years in the absence of any fishing mortality, and has a mean generation time of 8 years. The rebuilding period, in this case, could be as long as 20 years.

(C) A rebuilding program undertaken after May 1, 1998 commences as soon as the first measures to rebuild the stock or stock complex are implemented.

(D) In the case of rebuilding plans that were already in place as of May 1, 1998, such rebuilding plans must be reviewed to determine whether they are in compliance with all requirements of the Magnuson-Stevens Act, as amended by the Sustainable Fisheries Act.

(iii) For fisheries managed under an international agreement, Council action must reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.

(5) *Interim measures.* The Secretary, on his/her own initiative or in response to a Council request, may implement interim measures to reduce overfishing under section 305(c) of the Magnuson-Stevens Act, until such measures can be replaced by an FMP, FMP amendment, or regulations taking remedial action.

(i) These measures may remain in effect for no more than 180 days, but may be extended for an additional 180 days if the public has had an opportunity to comment on the measures and, in the case of Council-recommended measures, the Council is actively preparing an FMP, FMP amendment, or proposed regulations to address overfishing on a permanent basis. Such measures, if otherwise in compliance with the provisions of the Magnuson-Stevens Act, may be implemented even though they are not sufficient by themselves to stop overfishing of a fishery.

(ii) If interim measures are made effective without prior notice and opportunity for comment, they should be reserved for exceptional situations, because they affect fishermen without providing the usual procedural safeguards. A Council recommendation for interim measures without notice-and-comment rulemaking will be considered favorably if the short-term bene-

fits of the measures in reducing overfishing outweigh the value of advance notice, public comment, and deliberative consideration of the impacts on participants in the fishery.

(f) *OY—(1) Definitions.* (i) The term “optimum,” with respect to the yield from a fishery, means the amount of fish that 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; that is prescribed on the basis of the MSY from the fishery, as reduced by any relevant economic, social, or ecological factor; and, in the case of an overfished fishery, that provides for rebuilding to a level consistent with producing the MSY in such fishery.

(ii) In national standard 1, use of the phrase “achieving, on a continuing basis, the OY from each fishery” means producing, from each fishery, a long-term series of catches such that the average catch is equal to the average OY and such that status determination criteria are met.

(2) *Values in determination.* In determining the greatest benefit to the Nation, these values that should be weighed are food production, recreational opportunities, and protection afforded to marine ecosystems. They should receive serious attention when considering the economic, social, or ecological factors used in reducing MSY to obtain OY.

(i) The benefits of food production are derived from providing seafood to consumers, maintaining an economically viable fishery together with its attendant contributions to the national, regional, and local economies, and utilizing the capacity of the Nation's fishery resources to meet nutritional needs.

(ii) The benefits of recreational opportunities reflect the quality of both the recreational fishing experience and non-consumptive fishery uses such as ecotourism, fish watching, and recreational diving, and the contribution of recreational fishing to the national, regional, and local economies and food supplies.

(iii) The benefits of protection afforded to marine ecosystems are those

resulting from maintaining viable populations (including those of unexploited species), maintaining evolutionary and ecological processes (e.g., disturbance regimes, hydrological processes, nutrient cycles), maintaining the evolutionary potential of species and ecosystems, and accommodating human use.

(3) *Factors relevant to OY.* Because fisheries have finite capacities, any attempt to maximize the measures of benefit described in paragraph (f)(2) of this section will inevitably encounter practical constraints. One of these is MSY. Moreover, various factors can constrain the optimum level of catch to a value less than MSY. The Magnuson-Stevens Act's definition of OY identifies three categories of such factors: Social, economic, and ecological. Not every factor will be relevant in every fishery. For some fisheries, insufficient information may be available with respect to some factors to provide a basis for corresponding reductions in MSY.

(i) *Social factors.* Examples are enjoyment gained from recreational fishing, avoidance of gear conflicts and resulting disputes, preservation of a way of life for fishermen and their families, and dependence of local communities on a fishery. Other factors that may be considered include the cultural place of subsistence fishing, obligations under Indian treaties, and worldwide nutritional needs.

(ii) *Economic factors.* Examples are prudent consideration of the risk of overharvesting when a stock's size or productive capacity is uncertain, satisfaction of consumer and recreational needs, and encouragement of domestic and export markets for U.S.-harvested fish. Other factors that may be considered include the value of fisheries, the level of capitalization, the decrease in cost per unit of catch afforded by an increase in stock size, and the attendant increase in catch per unit of effort, alternate employment opportunities, and economies of coastal areas.

(iii) *Ecological factors.* Examples are stock size and age composition, the vulnerability of incidental or unregulated stocks in a mixed-stock fishery, predator-prey or competitive interactions, and dependence of marine

mammals and birds or endangered species on a stock of fish. Also important are ecological or environmental conditions that stress marine organisms, such as natural and manmade changes in wetlands or nursery grounds, and effects of pollutants on habitat and stocks.

(4) *Specification.* (i) The amount of fish that constitutes the OY should be expressed in terms of numbers or weight of fish. However, OY may be expressed as a formula that converts periodic stock assessments into target harvest levels; in terms of an annual harvest of fish or shellfish having a minimum weight, length, or other measurement; or as an amount of fish taken only in certain areas, in certain seasons, with particular gear, or by a specified amount of fishing effort.

(ii) Either a range or a single value may be specified for OY. Specification of a numerical, fixed-value OY does not preclude use of annual target harvest levels that vary with stock size. Such target harvest levels may be prescribed on the basis of an OY control rule similar to the MSY control rule described in paragraph (c)(1)(ii) of this section, but designed to achieve OY on average, rather than MSY. The annual harvest level obtained under an OY control rule must always be less than or equal to the harvest level that would be obtained under the MSY control rule.

(iii) All fishing mortality must be counted against OY, including that resulting from bycatch, scientific research, and any other fishing activities.

(iv) The OY specification should be translatable into an annual numerical estimate for the purposes of establishing any TALFF and analyzing impacts of the management regime. There should be a mechanism in the FMP for periodic reassessment of the OY specification, so that it is responsive to changing circumstances in the fishery.

(v) The determination of OY requires a specification of MSY, which may not always be possible or meaningful. However, even where sufficient scientific data as to the biological characteristics of the stock do not exist, or where

the period of exploitation or investigation has not been long enough for adequate understanding of stock dynamics, or where frequent large-scale fluctuations in stock size diminish the meaningfulness of the MSY concept, the OY must still be based on the best scientific information available. When data are insufficient to estimate MSY directly, Councils should adopt other measures of productive capacity that can serve as reasonable proxies for MSY to the extent possible (also see paragraph (c)(3) of this section).

(vi) In a mixed-stock fishery, specification of a fishery-wide OY may be accompanied by management measures establishing separate annual target harvest levels for the individual stocks. In such cases, the sum of the individual target levels should not exceed OY.

(5) *OY and the precautionary approach.* In general, Councils should adopt a precautionary approach to specification of OY. A precautionary approach is characterized by three features:

(i) Target reference points, such as OY, should be set safely below limit reference points, such as the catch level associated with the fishing mortality rate or level defined by the status determination criteria. Because it is a target reference point, OY does not constitute an absolute ceiling, but rather a desired result. An FMP must contain conservation and management measures to achieve OY, and provisions for information collection that are designed to determine the degree to which OY is achieved on a continuing basis—that is, to result in a long-term average catch equal to the long-term average OY, while meeting the status determination criteria. These measures should allow for practical and effective implementation and enforcement of the management regime, so that the harvest is allowed to reach OY, but not to exceed OY by a substantial amount. The Secretary has an obligation to implement and enforce the FMP so that OY is achieved. If management measures prove unenforceable—or too restrictive, or not rigorous enough to realize OY—they should be modified; an alternative is to reexamine the adequacy of the OY specification. Exceeding OY does not necessarily constitute overfishing. However, even if no over-

fishing resulted from exceeding OY, continual harvest at a level above OY would violate national standard 1, because OY was not achieved on a continuing basis.

(ii) A stock or stock complex that is below the size that would produce MSY should be harvested at a lower rate or level of fishing mortality than if the stock or stock complex were above the size that would produce MSY.

(iii) Criteria used to set target catch levels should be explicitly risk averse, so that greater uncertainty regarding the status or productive capacity of a stock or stock complex corresponds to greater caution in setting target catch levels. Part of the OY may be held as a reserve to allow for factors such as uncertainties in estimates of stock size and DAH. If an OY reserve is established, an adequate mechanism should be included in the FMP to permit timely release of the reserve to domestic or foreign fishermen, if necessary.

(6) *Analysis.* An FMP must contain an assessment of how its OY specification was determined (section 303(a)(3) of the Magnuson-Stevens Act). It should relate the explanation of overfishing in paragraph (d) of this section to conditions in the particular fishery and explain how its choice of OY and conservation and management measures will prevent overfishing in that fishery. A Council must identify those economic, social, and ecological factors relevant to management of a particular fishery, then evaluate them to determine the amount, if any, by which MSY exceeds OY. The choice of a particular OY must be carefully defined and documented to show that the OY selected will produce the greatest benefit to the Nation. If overfishing is permitted under paragraph (d)(6) of this section, the assessment must contain a justification in terms of overall benefits, including a comparison of benefits under alternative management measures, and an analysis of the risk of any species or ecologically significant unit thereof reaching a threatened or endangered status, as well as the risk of any stock or stock complex falling below its minimum stock size threshold.

(7) *OY and foreign fishing.* Section 201(d) of the Magnuson-Stevens Act

provides that fishing by foreign nations is limited to that portion of the OY that will not be harvested by vessels of the United States.

(i) *DAH*. Councils must consider the capacity of, and the extent to which, U.S. vessels will harvest the OY on an annual basis. Estimating the amount that U.S. fishing vessels will actually harvest is required to determine the surplus.

(ii) *DAP*. Each FMP must assess the capacity of U.S. processors. It must also assess the amount of DAP, which is the sum of two estimates: The estimated amount of U.S. harvest that domestic processors will process, which may be based on historical performance or on surveys of the expressed intention of manufacturers to process, supported by evidence of contracts, plant expansion, or other relevant information; and the estimated amount of fish that will be harvested by domestic vessels, but not processed (e.g., marketed as fresh whole fish, used for private consumption, or used for bait).

(iii) *JVP*. When DAH exceeds DAP, the surplus is available for JVP. JVP is derived from DAH.

[63 FR 24229, May 1, 1998]

§ 600.315 National Standard 2—Scientific Information.

(a) *Standard 2*. Conservation and management measures shall be based upon the best scientific information available.

(b) *FMP development*. The fact that scientific information concerning a fishery is incomplete does not prevent the preparation and implementation of an FMP (see related §§ 600.320(d)(2) and 600.340(b)).

(1) Scientific information includes, but is not limited to, information of a biological, ecological, economic, or social nature. Successful fishery management depends, in part, on the timely availability, quality, and quantity of scientific information, as well as on the thorough analysis of this information, and the extent to which the information is applied. If there are conflicting facts or opinions relevant to a particular point, a Council may choose among them, but should justify the choice.

(2) FMPs must take into account the best scientific information available at the time of preparation. Between the initial drafting of an FMP and its submission for final review, new information often becomes available. This new information should be incorporated into the final FMP where practicable; but it is unnecessary to start the FMP process over again, unless the information indicates that drastic changes have occurred in the fishery that might require revision of the management objectives or measures.

(c) *FMP implementation*. (1) An FMP must specify whatever information fishermen and processors will be required or requested to submit to the Secretary. Information about harvest within state boundaries, as well as in the EEZ, may be collected if it is needed for proper implementation of the FMP and cannot be obtained otherwise. The FMP should explain the practical utility of the information specified in monitoring the fishery, in facilitating inseason management decisions, and in judging the performance of the management regime; it should also consider the effort, cost, or social impact of obtaining it.

(2) An FMP should identify scientific information needed from other sources to improve understanding and management of the resource, marine ecosystem, and the fishery (including fishing communities).

(3) The information submitted by various data suppliers should be comparable and compatible, to the maximum extent possible.

(d) *FMP amendment*. FMPs should be amended on a timely basis, as new information indicates the necessity for change in objectives or management measures.

(e) *SAFE Report*. (1) The SAFE report is a document or set of documents that provides Councils with a summary of information concerning the most recent biological condition of stocks and the marine ecosystems in the FMU and the social and economic condition of the recreational and commercial fishing interests, fishing communities, and the fish processing industries. It summarizes, on a periodic basis, the best available scientific information concerning the past, present, and possible

Changes in fishing practices, such as the introduction of new gear, rapid increases or decreases in harvest effort, new fishing strategies, and the effects of new management techniques, may also create uncertainties. Social changes could involve increases or decreases in recreational fishing, or the movement of people into or out of fishing activities due to such factors as age or educational opportunities.

(2) Every effort should be made to develop FMPs that discuss and take into account these vicissitudes. To the extent practicable, FMPs should provide a suitable buffer in favor of conservation. Allowances for uncertainties should be factored into the various elements of an FMP. Examples are:

(i) *Reduce OY.* Lack of scientific knowledge about the condition of a stock(s) could be reason to reduce OY.

(ii) *Establish a reserve.* Creation of a reserve may compensate for uncertainties in estimating domestic harvest, stock conditions, or environmental factors.

(iii) *Adjust management techniques.* In the absence of adequate data to predict the effect of a new regime, and to avoid creating unwanted variations, a Council could guard against producing drastic changes in fishing patterns, allocations, or practices.

(iv) *Highlight habitat conditions.* FMPs may address the impact of pollution and the effects of wetland and estuarine degradation on the stocks of fish; identify causes of pollution and habitat degradation and the authorities having jurisdiction to regulate or influence such activities; propose recommendations that the Secretary will convey to those authorities to alleviate such problems; and state the views of the Council on unresolved or anticipated issues.

(d) *Contingencies.* Unpredictable events—such as unexpected resource surges or failures, fishing effort greater than anticipated, disruptive gear conflicts, climatic conditions, or environmental catastrophes—are best handled by establishing a flexible management regime that contains a range of management options through which it is possible to act quickly without amending the FMP or even its regulations.

(1) The FMP should describe the management options and their consequences in the necessary detail to guide the Secretary in responding to changed circumstances, so that the Council preserves its role as policy-setter for the fishery. The description should enable the public to understand what may happen under the flexible regime, and to comment on the options.

(2) FMPs should include criteria for the selection of management measures, directions for their application, and mechanisms for timely adjustment of management measures comprising the regime. For example, an FMP could include criteria that allow the Secretary to open and close seasons, close fishing grounds, or make other adjustments in management measures.

(3) Amendment of a flexible FMP would be necessary when circumstances in the fishery change substantially, or when a Council adopts a different management philosophy and objectives.

§ 600.340 National Standard 7—Costs and Benefits.

(a) *Standard 7.* Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

(b) *Necessity of Federal management—*

(1) *General.* The principle that not every fishery needs regulation is implicit in this standard. The Magnuson-Stevens Act requires Councils to prepare FMPs only for overfished fisheries and for other fisheries where regulation would serve some useful purpose and where the present or future benefits of regulation would justify the costs. For example, the need to collect data about a fishery is not, by itself, adequate justification for preparation of an FMP, since there are less costly ways to gather the data (see § 600.320(d)(2)). In some cases, the FMP preparation process itself, even if it does not culminate in a document approved by the Secretary, can be useful in supplying a basis for management by one or more coastal states.

(2) *Criteria.* In deciding whether a fishery needs management through regulations implementing an FMP, the following general factors should be considered, among others:

(i) The importance of the fishery to the Nation and to the regional economy.

(ii) The condition of the stock or stocks of fish and whether an FMP can improve or maintain that condition.

(iii) The extent to which the fishery could be or is already adequately managed by states, by state/Federal programs, by Federal regulations pursuant to FMPs or international commissions, or by industry self-regulation, consistent with the policies and standards of the Magnuson-Stevens Act.

(iv) The need to resolve competing interests and conflicts among user groups and whether an FMP can further that resolution.

(v) The economic condition of a fishery and whether an FMP can produce more efficient utilization.

(vi) The needs of a developing fishery, and whether an FMP can foster orderly growth.

(vii) The costs associated with an FMP, balanced against the benefits (see paragraph (d) of this section as a guide).

(c) *Alternative management measures.* Management measures should not impose unnecessary burdens on the economy, on individuals, on private or public organizations, or on Federal, state, or local governments. Factors such as fuel costs, enforcement costs, or the burdens of collecting data may well suggest a preferred alternative.

(d) *Analysis.* The supporting analyses for FMPs should demonstrate that the benefits of fishery regulation are real and substantial relative to the added research, administrative, and enforcement costs, as well as costs to the industry of compliance. In determining the benefits and costs of management measures, each management strategy considered and its impacts on different user groups in the fishery should be evaluated. This requirement need not produce an elaborate, formalistic cost/benefit analysis. Rather, an evaluation of effects and costs, especially of differences among workable alternatives, including the status quo, is adequate. If quantitative estimates are not possible, qualitative estimates will suffice.

(1) *Burdens.* Management measures should be designed to give fishermen the greatest possible freedom of action

in conducting business and pursuing recreational opportunities that are consistent with ensuring wise use of the resources and reducing conflict in the fishery. The type and level of burden placed on user groups by the regulations need to be identified. Such an examination should include, for example: Capital outlays; operating and maintenance costs; reporting costs; administrative, enforcement, and information costs; and prices to consumers. Management measures may shift costs from one level of government to another, from one part of the private sector to another, or from the government to the private sector. Redistribution of costs through regulations is likely to generate controversy. A discussion of these and any other burdens placed on the public through FMP regulations should be a part of the FMP's supporting analyses.

(2) *Gains.* The relative distribution of gains may change as a result of instituting different sets of alternatives, as may the specific type of gain. The analysis of benefits should focus on the specific gains produced by each alternative set of management measures, including the status quo. The benefits to society that result from the alternative management measures should be identified, and the level of gain assessed.

[61 FR 32540, June 24, 1996, as amended at 63 FR 7075, Feb. 12, 1998; 63 FR 24234, May 1, 1998]

§ 600.345 National Standard 8—Communities.

(a) *Standard 8.* Conservation and management measures shall, consistent with the conservation requirements of the Magnuson-Stevens Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to:

(1) Provide for the sustained participation of such communities; and

(2) To the extent practicable, minimize adverse economic impacts on such communities.

(b) *General.* (1) This standard requires that an FMP take into account the importance of fishery resources to fishing

Magnuson-Stevens Fishery Conservation and Management Act

Public Law 94-265

As amended through October 11, 1996

SEC. 303. CONTENTS OF FISHERY MANAGEMENT PLANS 16 U.S.C. 1853

95-354, 99-659, 101-627, 104-297

(a) REQUIRED PROVISIONS.--Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, shall--

(1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are--

(A) necessary and appropriate for the conservation and management of the fishery to prevent overfishing and rebuild overfished stocks, and to protect, restore, and promote the long-term health and stability of the fishery;

(B) described in this subsection or subsection (b), or both; and

(C) consistent with the national standards, the other provisions of this Act, regulations implementing recommendations by international organizations in which the United States participates (including but not limited to closed areas, quotas, and size limits), and any other applicable law;

(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interest in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;

(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;

(4) assess and specify--

(A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3),

(B) the portion of such optimum yield which, on an annual basis, will not be harvested by fishing vessels of the United States and can be made available for foreign fishing, and

(C) the capacity and extent to which United States fish processors, on an annual basis, will process that portion of such optimum yield that will be harvested by fishing vessels of the United States;

(5) specify the pertinent data which shall be submitted to the Secretary with respect to commercial, recreational, and charter fishing in the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, number of hauls, and the estimated processing capacity of, and the actual processing capacity utilized by, United States fish processors;

(6) consider and provide for temporary adjustments, after consultation with the Coast Guard and persons utilizing the fishery, regarding access to the fishery for vessels otherwise prevented from harvesting because of weather or other ocean conditions affecting the safe conduct of the fishery; except that the adjustment shall not adversely affect conservation efforts in other fisheries or discriminate among participants in the affected fishery;

(7) describe and identify essential fish habitat for the fishery based on the guidelines established by the Secretary under section 305(b)(1)(A), minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;

(8) in the case of a fishery management plan that, after January 1, 1991, is submitted to the Secretary for review under section 304(a) (including any plan for which an amendment is submitted to the Secretary for such review) or is prepared by the Secretary, assess and specify the nature and extent of scientific data which is needed for effective implementation of the plan;

(9) include a fishery impact statement for the plan or amendment (in the case of a plan or amendment thereto submitted to or prepared by the Secretary after October 1, 1990) which shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on--

(A) participants in the fisheries and fishing communities affected by the plan or amendment; and

(B) participants in the fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants;

(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;

(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management measures that, to the extent practicable and in the following priority--

(A) minimize bycatch; and

(B) minimize the mortality of bycatch which cannot be avoided;

(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;

(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors; and

(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery.

97-453, 99-659, 101-627, 102-251, 104-297

(b) DISCRETIONARY PROVISIONS.--Any fishery management plan which is prepared by any Council, or by the Secretary, with respect to any fishery, may--

(1) require a permit to be obtained from, and fees to be paid to, the Secretary, with respect to--

(A) any fishing vessel of the United States fishing, or wishing to fish, in the exclusive economic zone [or special areas,]* or for anadromous species or Continental Shelf fishery resources beyond such zone [or areas]*;

(B) the operator of any such vessel; or

(C) any United States fish processor who first receives fish that are subject to the plan;

(2) designate zones where, and periods when, fishing shall be limited, or shall not be permitted, or shall be permitted only by specified types of fishing vessels or with specified types and quantities of fishing gear;

(3) establish specified limitations which are necessary and appropriate for the conservation and management of the fishery on the--

(A) catch of fish (based on area, species, size, number, weight, sex, bycatch, total biomass, or other factors);

(B) sale of fish caught during commercial, recreational, or charter fishing, consistent with any applicable Federal and State safety and quality requirements; and

(C) transshipment or transportation of fish or fish products under permits issued pursuant to section 204;

(4) prohibit, limit, condition, or require the use of specified types and quantities of fishing gear, fishing vessels, or equipment for such vessels, including devices which may be required to facilitate enforcement of the provisions of this Act;

(5) incorporate (consistent with the national standards, the other provisions of this Act, and any other applicable law) the relevant fishery conservation and management measures of the coastal States nearest to the fishery;

(6) establish a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account--

- (A) present participation in the fishery,
- (B) historical fishing practices in, and dependence on, the fishery,
- (C) the economics of the fishery,
- (D) the capability of fishing vessels used in the fishery to engage in other fisheries,
- (E) the cultural and social framework relevant to the fishery and any affected fishing communities, and
- (F) any other relevant considerations;

(7) require fish processors who first receive fish that are subject to the plan to submit data (other than economic data) which are necessary for the conservation and management of the fishery;

(8) require that one or more observers be carried on board a vessel of the United States engaged in fishing for species that are subject to the plan, for the purpose of collecting data necessary for the conservation and management of the fishery; except that such a vessel shall not be required to carry an observer on board if the facilities of the vessel for the quartering of an observer, or for carrying out observer functions, are so inadequate or unsafe that the health or safety of the observer or the safe operation of the vessel would be jeopardized;

(9) assess and specify the effect which the conservation and management measures of the plan will have on the stocks of naturally spawning anadromous fish in the region;

(10) include, consistent with the other provisions of this Act, conservation and management measures that provide harvest incentives for participants within each gear group to employ fishing practices that result in lower levels of bycatch or in lower levels of the mortality of bycatch;

(11) reserve a portion of the allowable biological catch of the fishery for use in scientific research; and

(12) prescribe such other measures, requirements, or conditions and restrictions as are determined to be necessary and appropriate for the conservation and management of the fishery.

97-453, 104-297

(c) PROPOSED REGULATIONS.--Proposed regulations which the Council deems necessary or appropriate for the purposes of--

(1) implementing a fishery management plan or plan amendment shall be submitted to the Secretary simultaneously with the plan or amendment under section 304; and

(2) making modifications to regulations implementing a fishery management plan or plan amendment may be submitted to the Secretary at any time after the plan or amendment is approved under section 304.

Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT:

Requests for additional information or copies of the information collection instrument and instructions should be directed to Dr. Vernon Leeworthy, 301-713-3000, extension 138, or at Bob.Leeworthy@noaa.gov.

SUPPLEMENTARY INFORMATION:

I. Abstract

The purpose of this information collection is to obtain socioeconomic monitoring information in the Florida Keys National Marine Sanctuary (FKNMS). In 1997, regulations became effective that created a series of "no take zones" in the FKNMS. Monitoring programs are used to test the ecological and socioeconomic impacts of the \geq no take zones. \geq Three voluntary data collection efforts support the socioeconomic monitoring program.

The first collection involves a set of four panels on commercial fishing operations, where commercial fishermen will be interviewed to assess financial performance and assess the impacts of Sanctuary regulations. Information on catch, effort, revenues, operating and capital costs will be obtained to do financial performance analysis. Information on socioeconomic factors for developing profiles of the commercial fishermen such as age, sex, education level, household income, marital status, number of family members, race/ethnicity, percent of income derived from fishing, percent of income derived from study area, years of experience in fishing will be gathered to compare panels with the general commercial fishing population. The data would be collected annually.

The second collection will monitor recreational for-hire operations through the use of dive logs for estimating use in the \geq no take areas \geq versus other areas for snorkeling, scuba diving and glass-bottom boat rides. Volunteers will collect the logbooks monthly.

The third collection will survey all users of \geq no take areas. \geq Respondents will be asked to rate both the importance and satisfaction with various natural resource attributes and characteristics (e.g., water clarity, coral cover, number and diversity of sea life, etc.).

II. Method of Collection

Interviews will generally be used. The users surveys will also include a mailed questionnaire, and dive shops will be requested to maintain records.

III. Data

OMB Number: 0648-0409.

Form Number: None.

Type of Review: Regular submission.

Affected Public: Individuals or households, business or other for-profit organizations.

Estimated Number of Respondents: 788.

Estimated Time Per Response: 3 hours for a commercial fishing panel member; 10 hours for a dive shop; and 20 minutes for a questionnaire or telephone survey of a visitor to or a resident of a Sanctuary Preservation Area or Ecological Reserve.

Estimated Total Annual Burden Hours: 725.

Estimated Total Annual Cost to Public: \$0.

IV. Request for Comments

Comments are invited on: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: January 31, 2003.

Gwellnar Banks

Management Analyst, Office of the Chief Information Officer.

[FR Doc. 03-3001 Filed 2-6-03; 8:45 am]

BILLING CODE 3510-NK-S

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[I.D. 020303E]

Proposed Information Collection; Comment Request; Commercial Harvesters and Recreational Party and Charter Boat Socio-cultural and Economic Data Collection Pilot Study

AGENCY: National Oceanic and Atmospheric Administration (NOAA).

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and

respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3506(c)(2)(A)).

DATES: Written comments must be submitted on or before April 8, 2003.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW, Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT:

Requests for additional information or copies of the information collection instrument and instructions should be directed to Jonathan O'Neil at 978-281-9257, or to Jon.Oneil@noaa.gov.

SUPPLEMENTARY INFORMATION:

I. Abstract

This is a request to extend Paperwork Reduction Act approval for data collection for the Socio-Economic Pilot Study sponsored by the Atlantic Coast Cooperative Statistics Program (ACCSP) and conducted by the National Marine Fisheries Service. Due to a one year delay in initiating the project, data collection efforts must be extended through June 30th, 2004 to allow for completion of the proposed data collection cycle.

This pilot study is designed to develop socio-cultural and economic information systems for commercial and recreational fisheries. Three specific arenas are being addressed during this study. One is to identify and address potential problems with the mechanics of implementing the system. These include all data gathering, entry, and storage activities as well as the ability to link the data to all other ACCSP data. The second is to carry out a field test of the survey instrument across the different cultural and socio-economic contexts in which the data-gathering system must eventually be implemented. Field testing questions and instruments is standard procedure in preparing for any survey research. The third arena is to utilize the collected information for test runs of several standard economic models.

II. Method of Collection

The study is collecting social, cultural, and economic data from commercial and recreational party/charter fishing vessels' owners, captains, and crew via face-to-face interviews.

III. Data

OMB Number: 0648-0400.

Form Number: None.

Type of Review: Regular submission.

Affected Public: Business or other for-profit organizations, individuals or households.

Estimated Number of Respondents: 323.

Estimated Time Per Response: 15 minutes for an interview; and 15 minutes for a vessel captain/owner to gather business information.

Estimated Total Annual Burden Hours: 793.

Estimated Total Annual Cost to Public: \$0.

IV. Request for Comments

Comments are invited on: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: January 31, 2003.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. 03-3002 Filed 2-6-03; 8:45 am]

BILLING CODE 3510-22-S

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration**

[I.D. 020303G]

Proposed Information Collection; Comment Request; American Fisheries Act, Recordkeeping and Reporting Requirements.

AGENCY: National Oceanic and Atmospheric Administration (NOAA).

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and

respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on proposed and/or continuing information collections, as required by the Paperwork Reduction Act of 1995, Public Law 104-13 (44 U.S.C. 3506(c)(2)(A)).

DATES: Written comments must be submitted on or before April 8, 2003.

ADDRESSES: Direct all written comments to Diana Hynek, Departmental Paperwork Clearance Officer, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW, Washington, DC 20230 (or via the Internet at dHynek@doc.gov).

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection instrument and instructions should be directed to Patsy A. Bearden at 907-586-7228, or at patsy.bearden@noaa.gov.

SUPPLEMENTARY INFORMATION:**I. Abstract**

The American Fisheries Act (AFA) established an allocation program for the pollock fishery of the Bering Sea and Aleutian Islands Management Area (BSAI) which imposed major structural changes on the BSAI pollock fishery. The AFA provides the BSAI pollock fleet the opportunity to conduct their fishery in a more rational manner, while protecting non-AFA participants in the other fisheries. The AFA also affected the management of other groundfish, crab, and scallop fisheries off Alaska.

Much of the monitoring and enforcement burden is placed on participating AFA cooperatives and their members, which allows NOAA to manage the pollock fishery more precisely. Monitoring their own catch, vessels are able to individually (and in aggregate) come very close to harvesting exactly the amount of pollock they were allocated. NOAA requires certain reports and information to allow it to manage the fishery and monitor the program.

II. Method of Collection

Shoreside processor logbooks are submitted electronically. Other reports may be e-mailed, FAXed or submitted in paper form.

III. Data

OMB Number: 0648-0401.

Form Number: None.

Type of Review: Regular submission.

Affected Public: Business or other for-profit organizations, individuals or households, and not-for-profit institutions.

Estimated Number of Respondents: 26.

Estimated Time Per Response: 20 hours for a cooperative preliminary report; 8 hours for a cooperative final report; 30 minutes for a non-member vessel contract fishing application; 35 minutes for a shoreside processor electronic logbook (SPELR); 5 minutes for a cooperative pollock catch report; and 5 minutes for a designation of agent for service of process.

Estimated Total Annual Burden Hours: 1,024.

Estimated Total Annual Cost to Public: \$636.

IV. Request for Comments

Comments are invited on: (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden (including hours and cost) of the proposed collection of information; (c) ways to enhance the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Comments submitted in response to this notice will be summarized and/or included in the request for OMB approval of this information collection; they also will become a matter of public record.

Dated: January 31, 2003.

Gwellnar Banks,

Management Analyst, Office of the Chief Information Officer.

[FR Doc. 03-3084 Filed 2-6-03; 8:45 am]

BILLING CODE 3510-22-S

DEPARTMENT OF COMMERCE**National Oceanic and Atmospheric Administration**

[I.D. 020303H]

Proposed Information Collection; Comment Request; Estuary Restoration Act Database

AGENCY: National Oceanic and Atmospheric Administration (NOAA).

ACTION: Notice.

SUMMARY: The Department of Commerce, as part of its continuing effort to reduce paperwork and respondent burden, invites the general public and other Federal agencies to take this opportunity to comment on