

B. COLLECTIONS OF INFORMATION EMPLOYING STATISTICAL METHODS.

There are two data collection activities within OMB Control No.: 0648-0016 in which statistical sampling methods are used: (1) the collection of cost and earnings data as an add-on to the snapper-grouper logbook and (2) the collection of discard data as a supplement to the reef fish/snapper-grouper logbook. The sampling methods for each of these two programs are discussed separately.

Cost and earnings data collection

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

The population of boats to be sampled was determined from logbook reports submitted to the NMFS during 2003. Commercial fishermen are required to submit a trip report within seven days after the completion of each Gulf of Mexico reef fish, South Atlantic snapper-grouper, mackerel, shark and Atlantic dolphin /wahoo logbook trip. Fishermen who did not participate in these fisheries during a given month are required to submit a 'no-fishing' report at the end of the month.

There were 3,399 boats permitted for taken at least one fishing trip in one or more of these fisheries during 2003. A 20% sample was selected randomly, for a total of approximately 680 respondents. Contrary to the previous sampling procedure, no attempt is being made to exclude fisherman who have historically reported 'no-fishing' activity because they hold active permits and may start fishing at any time. Thus, the sample base has increased in size since the 2003 renewal of this collection.

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.

The cost and earnings data are collected on the same logbook form on which the catch and effort data are reported. Fishermen who are not selected to submit economic information receive the existing logbook trip reporting form that does not request information about prices and trip costs. Fishermen who are selected to report economic information receive the revised trip reporting form and will be instructed to submit economic information in addition to information about their catches and fishing effort.

A separate form to collect information about annual fixed costs will be mailed the selected fishermen in the spring of each year, with the timing established to take advantage of the availability of information about annual expenditures as recently compiled for end-of-year

federal income tax purposes. Trip reports about routine harvesting costs and annual reports about fixed costs will be submitted to the NMFS/SEFSC logbook program in Miami, Florida.

Data will be used for descriptive and analytical purposes. Descriptive uses include the estimation of average harvesting costs per boat per trip and total harvesting costs for all boats and all trips in the sampling universe. The procedures for estimating average harvesting costs per trip and total harvesting costs expended by all boats in the sampling universe are based on equations available in statistical texts by Cochran and Thompson. Data may also be used to test for seasonality of average harvesting costs per trip. Analytical uses include evaluations of regulatory proposals.

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.

Project staff obtained input on this proposed data collection program from commercial fishermen throughout the jurisdiction of the South Atlantic Fishery Management Council. Input included fishermen's opinions about the types of information that they can provide with minimum burden, and the format for collecting data. Their input was used in the development of survey instruments so that they would be easier to complete, with questions revised for clarity and to obtain more accurate data. Renewal of permits will be delayed to insure compliance.

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.

The SEFSC evaluated the program during 2006 and made adjustments to the reporting form, instructions, database design, scanning and processing procedures, and the quality control procedures.

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.

James Waters, NMFS industry economist, identified the sampling universe to be studied and prepared the sampling design. Data will be collected in conjunction with the existing logbook data collection program, which is conducted from the NMFS Southeast Fisheries Science Center in Miami, Florida. Data will be used primarily in analyses of proposed regulations by NMFS economists (e.g., Waters) and the South Atlantic Fishery Management Council.

Supplemental discard data

1. Describe (including a numerical estimate) the potential respondent universe and any sampling or other respondent selection method to be used. Data on the number of entities (e.g. establishments, State and local governmental units, households, or persons) in the universe and the corresponding sample are to be provided in tabular form. The tabulation

must also include expected response rates for the collection as a whole. If the collection has been conducted before, provide the actual response rate achieved.

The population of boats to be sampled was determined from logbook reports submitted to the NMFS during 2003. Commercial fishermen are required to submit a trip report within seven days after the completion of each Gulf of Mexico reef fish, South Atlantic snapper-grouper, mackerel, shark, Atlantic dolphin / wahoo logbook trip. Fishermen who did not participate in these fisheries during a given month are required to submit a 'no-fishing' report at the end of the month.

There were 3,399 boats permitted for taken at least one fishing trip in one or more of these fisheries during 2003. A 20% sample was selected, for a total of approximately 680 respondents. No attempt is being made to exclude fisherman who wave historically reported 'no-fishing' activity because they hold active permits and may start fishing at any time.

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.

The procedure for this collection activity is a stratified sampling with the stratification by geography and gear. A 20% random sample will be selected from each stratum and these vessel owners and/or captains will be sent the supplemental discard form along with regular logbooks. The discard data reported by the 20% sample will be expanded by the number of trips in each strata.

There are no specialized sampling problems anticipated. It is necessary for those selected to report all discards and interaction data for every trip where they occur. Annual reporting will result in poorer quality data because fishermen will not be able to remember their fishing activity for that length of time.

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.

One of the reasons a sampling procedure is utilized is to provide additional report monitoring by SEFSC logbook staff. Consequently, the response rate and quality should be maximized by close interactions with fishermen.

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.

Because of the large universe and the anticipated variation in reported discard or interaction data, it is not feasible to do a test with fewer than 10. However, interaction and feed back with the

fishermen that are using the form will provide sufficient information about the form and collection procedures to make whatever adjustments are needed. Furthermore, analyses of the data will provide information about the variations in the discard data to determine whether the strata and sample sizes are appropriate.

5. Provide the name and telephone number of individuals consulted on the statistical aspects of the design, and the name of the agency unit, contractor(s), grantee(s), or other person(s) who will actually collect and/or analyze the information for the agency.

The following Southeast Fisheries Science Center staff were consulted on the statistical aspects of this data collection activity:

Dr. Steve Turner, Survey Statistician, (305)361-4482

Dr. Gerald Scott, Director, Sustainable Fisheries Division, (305)361-4220

Dr. Steve Turner, Group Leader, Fisheries Statistics Group, is responsible for the data collection activity.