

SUPPORTING STATEMENT
U.S. Department of Commerce
National Oceanic & Atmospheric Administration
Southeast Logbook Family of Forms
OMB Control Number 0648-0016

SUPPORTING STATEMENT PART B

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 government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

Three data collections within OMB Control No. 0648-0016 use statistical sampling methods: (1) the annual fixed cost survey; (2) the collection of cost and earnings data as an add-on to the coastal fisheries logbook; and (3) the collection of discard data as a supplement to the coastal logbook. The three data collection activities use the same potential respondent universe and two different sampling methods for sample selection as discussed below. The two economic collections use the same sample, as the annual fixed cost survey complements the trip-level cost and earnings add-on.

The population of vessels to be sampled is determined from logbook reports submitted to NMFS on an annual basis. Commercial fishermen are required to submit a trip report (logbook) within seven days after the completion of each trip in Gulf of America (Gulf) reef fish, South Atlantic snapper-grouper, mackerel, shark, and Atlantic dolphin and wahoo fisheries. 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.

Annually approximately 3,500 permitted vessels make at least one fishing trip in one or more of these fisheries. Approximately 2,500 distinct vessels report fishing activity, i.e., one or more trips, during a typical year. To reduce the reporting burden on the fishermen, two 20-percent samples of the vessels with a federal permit for Gulf reef fish, South Atlantic snapper-grouper, king mackerel, Spanish mackerel, or shark are targeted to report economic information and discard information. To ensure that the samples are representative of the total universe of vessels with federal permits, stratified random samples are selected from the universe of all vessels with the above types of federal permits.

For the economic collections, the sampling design is a stratified sample with strata-specific inclusion probabilities. The population is stratified by vessel activity during the last two years. The three strata are 1) inactive or new vessels, 2) active vessels with up to 20 days at sea per

year, and 3) active vessels with more than 20 days at sea. Stratum 1 is under-sampled at 10%, while strata 2 and 3 are oversampled at 30%. Historically, inactive and new vessels account for about half the population, leading to an overall sample size of roughly 20% (approximately 700 vessels). For discard reporting, a 20 percent sample is selected randomly from vessels who fished during the previous calendar year, for a total of approximately 500 respondents annually. However, the exact sample size is only determined at the time of sampling, as the size of each strata depends on the activity level (or lack thereof) of all permitted vessels in the previous two years. In the table below, the expected sample size is estimated using the last year (2019-2023) average rate of sample size for each collection.

Information Collection	Potential Respondents Universe (number of permitted vessels or fishing trips) (a)	Actual Sample Size* (b)	Expected Sample Size (c)=(a)×(b)	Expected Response Rate (d)	Expected Number of Respondents (e)=(c)×(d)	Actual Response Rate (e)
Annual Cost Survey for Snapper-Grouper, Reef Fish, Mackerel, and Dolphin-Wahoo Permit Holders	3,292	20.0%	659	100%	659	>95%
Economic Trip Cost Logbook for SE Coastal Fisheries	57,062	12.9%	7,357	100%	7,357	>95%
Discard report for Snapper-Grouper, Reef Fish, Mackerel and Dolphin-Wahoo Permit Holders	57,062	16.7%	9,452	100%	9,452	>95%

*Although the target sample size is assumed to be ~20% of the respondent universe, we used the actual rate of sample size based on the last 5-year (2019-2023) average.

The other data collections within OMB Control No. 0648-0016, summarized in the table below, do not use any sampling methods. These programs are run more like a census than surveys. The reports expected and received are closely related to the actual number of fishing vessels that hold permits and the number of fishing trips that are made. An expected response rate and the actual response rate is all permitted fishing vessels and all fishing trips because federal regulations require fishermen to submit completed logbooks for all trips. NMFS will not renew permits until the regulations are met.

Information Collection	Potential Respondents Universe (number of permitted vessels or fishing trips)	Expected Response Rate (b)	Expected Number of Respondents (c)=(a)×(b)	Actual Response Rate (d)
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	(a)			
Headboat Logbook - Vessel Trip Report*	21,912	100%	21,912	>95%
Headboat Logbook - No fishing report*	2,641	100%	2,641	>95%
Coastal Logbook - Vessel Trip Report*	28,669	100%	28,669	>95%
Coastal Logbook - No fishing report*	28,393	100%	28,393	>95%
Golden Crab Logbook – Vessel Trip Reports*	48	100%	48	>95%
Golden Crab Logbook - No fishing report*	49	100%	49	>95%
Wreckfish Logbook - Trip Report*	39	100%	39	>95%
Wreckfish Logbook - No fishing report*	48	100%	48	>95%

* 5 year average (2019-2023)

Regulations require respondents to respond to information collections, and therefore, the response rates are very high. NMFS targeted estimates can differ slightly from actual numbers observed annually. The above estimates are based on an average number of permit holders and the number of fishing trips made annually. It is common for the same permit to be transferred from one fisher to another fisher in the middle of the fishing season. Additionally, fisheries usually exhibit extensive geographic and temporal variation in fishing effort. Multiple external forces add to this variability; those forces include short and long term environmental changes which may impact fishermen and resource population abundance, economic factors, such as the price of fuel and the price of fish, and management factors.

2. Describe the procedures for the collection of information including:

- Statistical methodology for stratification and sample selection,
- Estimation procedure,
- Degree of accuracy needed for the purpose described in the justification,
- Unusual problems requiring specialized sampling procedures, and
- Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

Information Collections for Current Programs

For the information collection, the data collection method is comparable to a mail survey, as forms are filled out by respondents. The two samples, economic and bycatch, are selected by stratified random sampling. Many permits are on vessels that are not active commercial fishing vessels and hence they generate no useful data. At the other end of the activity spectrum, a few very active vessels are often responsible for the bulk of landings in any one fishery or gear segment. The intent of both sampling designs is to under-sample inactive vessels and oversample active and highly active vessels. The economic sampling design breaks the population into three activity strata (inactive, less than or equal to 20 days at sea, and greater than 20 days at sea) without further reference to region or gear. The discard sampling design breaks the population

into multiple region-gear strata. A random sample will be selected from each stratum, and these vessel owners will be notified of their selection with the mailing of the following year's logbook. It is necessary for those selected to report bycatch or economic data to report all discards and interaction data of all cost and earnings data, respectively, 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.

Use of the Data

Data will be used for descriptive and analytical purposes. Descriptive uses include the estimation of average harvesting costs per boat per trip and average discard or interactions per boat trip in the sampling universe. Data collected from sampled boats will be expanded to all boats in the sampling universe based on equations available in statistical texts by Cochran and Thompson. Analytical uses include evaluations of regulatory proposals.

For the annual fixed cost survey, a separate form to collect information about annual fixed costs will be mailed early in a given year to the fishermen selected to report trip-level costs the previous 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.

The burden on the respondents will be minimized by only collecting the minimum data to meet the analytical needs of NMFS.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield "reliable" data that can be generalized to the universe studied.

For the information collections, the project staff obtained input on the data collection program from commercial fishermen throughout the jurisdiction of the South Atlantic and Gulf of America Fishery Management Councils. 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 will be easier to complete, with questions revised for clarity and to obtain more accurate data. One of the reasons a sampling procedure for the information collections 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. Renewal of permits is contingent on timely reporting to ensure compliance.

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately

or in combination with the main collection of information.

The Southeast Logbook Family of Forms has been collecting fisheries information from industry for over three decades. No additional testing is planned for this information collection, because of the large universe and the anticipated variation, it is not feasible to do a test with fewer than 10. However, interaction with and feedback from the fishermen that are using the forms will provide sufficient information about the forms and collection procedures to make whatever adjustments are needed. The SEFSC evaluates the data collection programs internally every year and makes minor adjustments to the reporting forms, instructions, database design, scanning and processing procedures, and the quality control procedures. Furthermore, analyses of the data will provide information about the variations in the data to determine whether the strata and sample sizes are appropriate. NMFS is part of a cooperative program to collect fishery statistics; a compilation of research recommendations can be found at <https://sedarweb.org/research-recomendations>.

5. Provide the name and telephone number of individuals consulted on 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 staff support or have been consulted on the statistical aspects of the remaining information collections:

Dr. David Gloeckner, Division Chief of the Data Management and Fisheries Statistics Division, is responsible for some of these data collection activities: (305) 361-4257.

Dr. Matthew McPherson, Branch Chief of the Social Science Research Group, is responsible for some of these data collection activities: (305) 365-4112.

Ray Mroch, Chief of the Commercial Fisheries Monitoring Branch, is responsible for the commercial data collection activities: 252-728-8765.

Rob Chesire, Chief of the Recreational Fisheries Monitoring Branch, is responsible for the recreational data collection activities: (252) 666-7461.