

SUPPORTING STATEMENT
COST-EARNINGS SURVEY OF MARIANA ARCHIPELAGO SMALL BOAT FLEET
OMB CONTROL NO. 0648-xxxx

A. JUSTIFICATION

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

The Magnuson-Stevens Conservation and Management Act (MSA) mandates that conservation and management measures prevent over-fishing and obtain an optimum yield on a sustained basis and the measures shall be based upon the best scientific information available. National Standard 8 of the MSA requires that conservation and management measures take into account the importance of fishery resources to fishing communities in order to: (a) provide for the sustained participation of such communities, and (b) to the extent practicable, minimize adverse economic impacts on such communities. To promote better utilization and management of fishery resources in the Mariana Archipelago (Guam and the Commonwealth of the Northern Mariana Islands (CNMI)), the National Marine Fisheries Service (NMFS) proposes the collection of cost-earnings data in these island areas' boat-based reef fish, bottomfish, and pelagic fisheries.

The chief domestic fishery in Guam and the CNMI is a small boat, 1 to 2-day fishery that targets a variety of pelagic and near shore species. The fishery is important to the local community in terms of a source of fresh local protein and has deep roots in the island culture. The fishery lands approximately 4 pounds of fresh fish per capita in Guam and 13 pounds of fresh fish per capita in CNMI annually. Fishing activities are usually a mix of quasi-commercial and non-commercial fishing, with slightly more than half of the fish landed being commercial landings and the rest are non-commercial landings (mostly for subsistence use). Given the importance of the small-boat fishery to Guam and the CNMI's communities and economies, it is critical to monitor changes among key economic indicators through economic data collection.

Fisheries in these areas are managed under the Western Pacific Region Fishery Management Council (WPRFMC). The paucity of economic data has been a significant hurdle in evaluation of economic impacts and regulatory proposals in Guam and the CNMI. Most of the existing economic information is limited to dockside value data. Although the Pacific Island Fisheries Science Center (PIFSC) has continuous fishing expenses data collection in these areas, the information collected is limited to fuel cost, cost of ice used, cost of bait & chum used, and cost of fishing gear lost (OMB Control No: 0648-0635). The most recent update on the cost-earnings studies in the Marianas were conducted in 2011 based on 2010 operations (Hospital and Beavers 2012¹, 2014²). This research has become dated and is inadequate to support current management actions, two recent related recommendations were stated in the 166th Council

¹ Hospital, J., and C. Beavers. 2012. *Economic and Social Characteristics of Guam's Small Boat Fisheries*. Pacific Islands Fish. Sci. Cent., Natl. Mar. Fish. Serv., NOAA, Honolulu, HI 96822-2396. Pacific Islands Fish. Sci. Cent. Admin. Rep. H-12-06, 60 p. + Appendices.

² Hospital, J., and C. Beavers. 2014. *Economic and Social Characteristics of Small Boat Fishing in the Commonwealth of the Northern Marina Islands*. Pacific Islands Fish. Sci. Cent., Natl. Mar. Fish. Serv., NOAA, Honolulu, HI 96818-5007. Pacific Islands Fish. Sci. Cent. Admin. Rep. H-14-02, 58 p. + Appendices.

Meeting (June 2016) from WPRFMC to PIFSC, focusing specifically on updating past cost-earnings work in the Marianas:

1. *The Council recommends NMFS PIFSC to conduct an economic survey in the CNMI to determine the expense and expenditure differences in fisheries between Saipan, Tinian, Rota and Guam to determine the differences between the islands as well as between the fishery sectors.*
2. *The Council recommends NMFS PIFSC design and implement a socio-economic survey to determine the fisheries opportunities and impacts of increased recent development in the CNMI, given the new hotels and casinos in Saipan.*

Therefore, we are proposing to conduct a comprehensive economic study of small boat fisheries in Guam and the CNMI in 2018. The objectives of this study are to update the cost-earnings economic information for these small boat fleets (previous survey: 2011 Marianas cost-earnings survey, OMB control #0648-0369), and to explore important social and behavioral aspects of these fisheries that will be important to document for consideration in any potential future management actions. The information collected will be used to: 1) satisfy regulatory objectives and analytical requirements through the collection of economic data for these fleets, 2) assist the WPRFMC in selecting policies that meet conservation and management goals and minimize to the extent possible any adverse economic impacts to fishery participants, and 3) supports the Commercial Fisheries Economic Assessment Index (CFEAI) and Recreational Fisheries Economic Assessment Index (RFEAI) funded by NMFS nation-wide to collect necessary and timely economic data.

The need and the authorization to collect these economic data are found in the MSA (16 U.S.C. 1801 et seq.), the Regulatory Flexibility Act (RFA, 5 U.S.C. 601 et seq.), the National Environmental Policy Act (NEPA, 42 U.S.C. 4372 et seq.), and EPA Executive Order (EO) 12866 also apply. The MSA notes that collection of reliable data is essential to the effective conservation, management, and scientific understanding of the fishery resources of the United States. The nation's fisheries should be "conserved and maintained so as to provide optimum yields on a continuing basis". Furthermore, eight of the ten National Standards under the MSA, which provide guidance to the regional fishery management councils, have implications for economic analyses. For example, under section 303 (a) (9) of the MSA, a fishery management plan must include a Fishery Impact Statement (FIS), which assesses, specifies, and describes the likely effects of the conservation and management measures on participants in the fisheries being managed, fishing communities dependent on these fisheries, and participants in fisheries in adjacent areas. Under the RFA, the Small Business Administration needs a determination of whether a proposed rule has a significant impact on a substantial number of small entities that are to be directly regulated. For RFA purposes, one of the criteria to determine significant economic impact involves an assessment of the change in short-term accounting profits for small entities. The NEPA requires a determination of whether Federal actions significantly affect the human environment. This requires a number of economic analyses including the impact on entities that are directly regulated and those that are indirectly affected. Lastly, EO 12866 mandates an economic analysis of the benefits and costs to society of each regulatory alternative considered by the fishery management councils, and a determination of whether the rule is significant.

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 will provide valuable cost-earnings data and related information on social conditions for Guam and the CNMI small boat fisheries. The information will partially fill the data gap set forth in the Commercial Fisheries Economic Assessment Index (CFEAI) by NMFS Science & Technology. CFEAI is comprised of several elements: operating cost data be collected and net trip revenues be estimated at least every three years; and fixed cost data be collected and profitability be estimated at least every five years. The survey seeks to collect fishing-related expenditures such as operating costs and fixed costs as primary data, and also the value of fish sold on an annual basis. Net trip revenue and profit can be estimated by revenue minus costs. Net revenue is a key factor for commercial fishers to determine whether they stay or leave the fishing industry; therefore, it is a very important indicator of the dynamics of fishing effort in short run and fishing industry development in long run. It can be used to examine any significant short-term economic impact from conservation and management measures. In addition, the cost-earnings data will allow NMFS economists to analyze the relationship between fishing effort and cost and predict potential changes in fishing effort due to external changes like fuel cost changes and fishery management actions. The study will provide timely economic information for various stakeholders, including fishermen, fishery managers, researchers, and the general public.

In this project, a survey form has been developed based on past cost-earnings studies of the Guam and the CNMI small boat fisheries, for ease of economic data comparison over time. The proposed questionnaire has seven sections: 1) fishing experiences, 2) market participation, 3) vessel characteristics, 4) fishing trip cost, 5) annual fishing expenditures, 6) basic demographics, and 7) opinions about fisheries management.

The first section inquires about the fisher's fishing experience in the past 12 months, including number of boat and non-boat trips, gear usage, length of boat fishing trips, number of people on board, boat ramp usage, pounds of fish caught, and the use of Fish Aggregating Devices. This information is essential to understand fisher's distribution of fishing effort and trip characteristics over the year.

The second section asks about fisher's market participation and social aspects of fishing. Questions about market participation include market outlets used, fishing income, and ability to sell different types of fish. Questions related to social aspects of fishing include catch disposition between markets and other uses (such as home consumption and community distribution), self-identification of fisherman type, fishing roles in the past 12 months (e.g. fish for a vendor, dealer, or as an independent fisherman, and whether they fish as a captain or crew), and importance of catch as a source of food for family. This section will provide valuable data to satisfy the MSA requirements as the MSA requires fishery management council to take into account fishers' historical and present participation, dependence on fishery, and culture values relevant to the fishery and any affected fishing communities when developing management plan.

The third section inquires the captain about the vessel characteristics like the vessel's length, horsepower, year built, and year purchased. It also asks the vessel value that includes purchase

price and market value. This information can be used to estimate the economic depreciation, a significant portion of fixed costs.

Section four asks the fishing trip costs for the most common and the second most common gear type and the trip cost distribution. This will provide the variable costs during the operation of vessel which include boat fuel, truck fuel, oil, ice, bait, food and beverage, daily maintenance and repair, and other. The information collected in this section will be used to estimate the operating costs and net trip revenues.

Section five collects annual fishing expenditures, i.e. the fixed costs incurred regardless of the number of trips taken in a year like insurance, loan payment, financial services, mooring fees, repair, maintenance, and improvements for vessel, engines, or trailer, oil and lube, gear, electronics, fees, safety equipment, etc. The information collected in this section will be used to estimate the fixed costs and profitability on an annual basis.

Section six inquires about fisher's demographic characteristics. These include information about the fisher's gender, age, village lived in, ethnicity, employment, education level, household income, and fishing club affiliation. These data will provide information on social and cultural characteristics of people participating in the fishing communities, critical to Social Impact Assessments associated with fishery regulations.

The last section asks about fisher's opinion on future fishing condition and fisheries management priorities. It also gives an opportunity for fishers to voice their opinions about the management of fisheries and the results will be grouped into categories and shared with the Western Pacific Regional Fishery Management Council. The survey forms can be found in Appendix A.

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

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

The proposed data collection does not involve the use of any of the above information technology techniques. The data will be conducted through a voluntary, in-person survey methodology because no existing contact information is available for most of the active fishers and in-person surveys in the past have received high response rates and support from the fishing community.

We do plan to make a copy of the OMB approved survey instrument available online for outreach and information purpose. The data collected will not be available to the public over the

internet, given its confidential nature. However, a report summarizing the aggregated and main results will be available online once the data collection and analysis are completed.

4. Describe efforts to identify duplication.

We have contacted local fishery agencies: Guam Department of Agriculture's Division of Aquatic and Wildlife Resources (DAWR), and CNMI government Department of Lands and Natural Resources' Division of Fish & Wildlife (DFW) to inquire about their upcoming data collection efforts; none of them have planned data collection initiatives dealing with fishing expenses of boat-based fisheries in the upcoming years.

A literature review was conducted to find studies that collect boat-based cost-earnings data in the Marianas and literatures on this topic are all outdated (see response in Question 1 for past studies). Although PIFSC started implementing a longitudinal survey to collect fishing trip cost data in Guam and the CNMI in 2011 and 2009, respectively, it is restricted to a few basic fishing cost items like fuel cost, ice cost, cost of bait and chum, and cost of fishing gear lost (OMB Control No: 0648-0635). Therefore, we propose updating our knowledge of economic conditions of small boat fisheries in these areas in this one-time survey.

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

Small boat fishing in Guam and the CNMI include owner or family-operated small businesses. To minimize burden, the survey will be conducted through in-person surveys and participation in the survey is completely voluntary. If a fisher does not want to participate, he/she can simply disregard the survey. In addition, we intend to follow the survey strategy that was successfully implemented and received high response rates in the Marianas during 2011 Marianas (Hospital and Beavers, 2012, 2014). In-person surveys would be administered by a contracted outside vendor with good connections with the local fishing communities and considerable groundwork will be done within the community prior to the survey implementation to get a good understanding of fishery participation levels. The survey instrument for this study will be a shorter version that was used in the last cost-earnings studies (Hospital and Beavers, 2012, 2014) to minimize burden.

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

Without the data collected through the surveys, the legal requirements put forth by the MSA, NEPA, RFA, and EO 12866 would not be adequately satisfied. These mandates require regional fishery management councils to establish conservation and management measures which take into account the importance of fishery resources to fishing communities in order to provide sustained fishing community participation and to minimize, to the extent possible, adverse economic impacts on such communities. Particularly, RFA requires a determination of any proposed rule that has a significant economic impact to small businesses. Furthermore, these requirements also mandate that regional fishery management councils establish conservation and management measures using the best available information.

The absence of detailed economic information would prevent the identification of communities that are engaged and dependent on fishing and the estimation of adverse economic impacts on these communities. Management proposals would continue to be debated without sound information. Another consequence of not having the appropriate economic data could be court challenges on the grounds of inadequate analysis. Last, the collection of detailed economic data will allow fishery managers to make timely and better-informed decisions by having the best scientific information available.

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

None.

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

A Federal Register Notice published on March 1, 2017 (82 FR 12199) solicited public comments. No comments were received.

Collection of fishery cost-earnings data was listed as one of the top priorities under WPRFMC Five-year Research Priorities:

http://www.nmfs.noaa.gov/sfa/reg_svcs/Councils/ccc_2012m/TAB%206/WPFMC_Research_Priorities.pdf. And the recent recommendations to PIFSC stated by WPRFMC in the 166th Council Meeting (June 2016) on updating cost-earnings work in the Marianas, it is necessary to update the cost-earnings status for the Marianas small boat fleets since the last study was conducted in 2011.

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

No payments or gifts will be provided to respondents.

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

Survey respondents will be advised that any information provided will be considered private (no confidentiality authorized by the MSA, as this is a voluntary survey). All individual surveys will be held by only a limited number of researchers at PIFSC who will enter or work with the data. After the data are entered in an electronic format, only these researchers will have password-protected access to the data. After data from the surveys have been entered into an electronic format, the hard copies will be kept in a locked cabinet. It is the Agency's policy not to release personally and business identifiable data, other than in aggregate form, as the NMFS protects

such data. Whenever data are requested by other users, the Agency will ensure that information identifying the pecuniary business activity of a particular individual is not identified. Only group averages or group totals will be presented in any reports, publications, or oral presentations of the study's results.

We will follow PIFSC’s policy of data aggregation: Any fishery-wide aggregations of data shall include information from three or more individual vessels. Effort information, including just the presence of fishing, can be just as sensitive as the actual catch itself. All data analysis programs should include a procedure for calculating the number of vessels within the aggregate. Wherever possible, aggregations should be large enough to include more, rather than fewer, vessels.

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

No sensitive questions will be asked.

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

We estimate the annual number of respondents based on the number of unique boats interviewed in the last cost-earnings studies in Guam (Hospital and Beavers, 2012), and the CNMI (Hospital and Beavers, 2014). Because this is a one-time survey, the frequency of responses per participant is 1. We anticipate 280 cost-earnings surveys will be completed and each survey is about 45 minutes. The total burden hours are estimated to be 210. Table 1 below shows the details.

Table 1. Burden Hours Per Year

	Guam	CNMI	Total
Number of respondents (boats)	150	130	280
Frequency of responses per respondent	1	1	1
Total number of responses expected	150*	130**	280
Average response time per respondent (minutes)	45 mins	45 mins	
Total Burden (hours)	112.5	97.5	210

*Using the past study’s coverage and response rate: 40% of 372 active vessels in Guam.

Response rate of those offered the survey at community meetings is expected to be 95%.

***Using the past study’s coverage and response rate: 46% of 283 active vessels in CNMI.

Response rate of those offered the survey at community meetings is expected to be 95%.

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

Other than the 210 burden hours listed in question 12, the survey does not impose any burden (costs) to the respondents resulting from the data collection.

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

The total cost of this data collection project is estimated to be \$50,000, which covers (a) a contracted outside vendor for survey implementation (\$40,000), (b) labor cost (\$10,000 = \$25 hourly rate x 400 hours) including survey development, database design and data entry, data processing and quality control, report writing, and brochure development.

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

This is a new program for the collection of new economic data.

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

The collection of data is expected to be implemented in the first three quarters of calendar year 2018. We expect to complete the analysis of the data by 2018. The results will be published as a PIFSC technical report and this will be available on PIFSC website. A brochure summarizing the results will be developed for outreach and timely dissemination of survey results to the fishing community and fishery managers.

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

The expiration date will be displayed on the survey form.

18. Explain each exception to the certification statement.

There are no exceptions to the certification statement.