

SUPPORTING STATEMENT
COST-EARNINGS SURVEY OF AMERICAN SAMOA LONGLINE FISHERY
OMB CONTROL NO.: xxxx-xxxx

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.

Potential Respondent Universe

The potential respondent universe is 22, according to the 2013 longline logbook data submitted to the American Samoa Department of Marine and Wildlife Resources.

Sampling and Other Respondent Selection Methods

The whole population of longline fishers in American Samoa will be included in this survey, so no sampling or other respondent selection method will be used.

Expected Response Rate

Prior research in fishery economic performance in the Pacific islands areas achieved relatively high response rates. Previous cost-earnings studies of American Samoa longline fishery using in-person interviewing methodology all received high response rates Arita and Pan (2009)¹ achieved 88% response rate and O'Malley and Pooley (2002)² achieved 82% response rate. Given the similar survey instruments, sample composition, and survey methodology between this proposed new survey and the pervious cost-earnings surveys, we assume a 88% response rate and the number of respondents is estimated to be 20.

The detailed response rate and target number of surveys are shown in Table 1.

Table 1. Response Rate and Target Number of Surveys in American Samoa

	American Samoa
Total number of boats (population)	22
Expected response rate	88%
Target number of surveys	20

¹ Arita, Shawn and Minling Pan. 2013. Cost-Earnings Study of the American Samoa Longline Fishery Based on Vessel Operations in 2009. PIFSC Working Paper WP-13-009.

² O'Malley, Joseph M. and Samuel G. Pooley. 2002. *A Description and Economic Analysis of Large American Samoa Longline Vessels*. Joint Institute for Marine and Atmospheric Research, SOEST Publication 02-02, JIMAR Contribution 02-345. University of Hawaii at Manoa, Honolulu.

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.

One time, voluntary surveys will be used to obtain costs and earnings information. The whole population of longline fishers will be targeted in American Samoa, so no stratification and sample selection will be employed.

Using the population and target number of surveys in American Samoa listed in Table 1, the sampling errors at the 95% confidence level is 6.8%. This level of accuracy will provide good estimation of fishing expenses, revenues, and profitability in general. The data collected will be used for descriptive and economic analyses. Detailed economic analyses can be found in Section A, Question 2.

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.

To maximize response rates of this proposed cost-earnings survey, an outreach was done in April 2015 when NMFS's economist Minling Pan visited American Samoa to conduct a field survey for the American Samoa longline fishing trip cost expenditure. She contacted about 70% of the longline fishermen and gave them a heads-up about this upcoming cost-earnings survey. Other strategies to maximize response rates are to adopt previous cost-earning surveys of Hawaii and American Samoa longline fisheries and to keep the survey short. The questions and format of this proposed survey are similar to previous cost-earnings surveys of Hawaii and American Samoa longline fisheries and it was shown that the previous surveys were feasible given their high response rates. In addition, this proposed survey is the shortest version compared with previous cost-earnings surveys conducted in the longline fishery. We try to focus on the main questions related to costs, earnings, and fishing characteristics and eliminate any unnecessary questions that appeared in the questionnaires used in previous surveys. Several steps will be taken to maximize the response rates when implementing the survey. First, the participation of the survey is completely voluntary; if the interviewer feels the fisher does not want to participate, he will immediately terminate the survey and thank the fisher for the time. Second, interviews will be conducted at times and places that are convenient to fishers. This will minimize any potential disruption to fishers' fishing practices. We will not pretest this survey, as it is based on previous, similar surveys which achieved a high response rate.

Addressing Non-Response

The expected response rate is close to 90% and we expect the responses will be representative. To deal with non-response in American Samoa, interviewers will make several attempts to conduct interviews (i.e., rotate between different time of day and different days of week).

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 under the Paperwork Reduction Act.

We will pre-test the survey with 3 fishers in American Samoa in order to gather suggested changes that may make the instrument easier to understand and complete.

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.

Dr. Minling Pan, economist, employed by the NMFS, was consulted on the statistical design and analysis.³ A fieldworker will be hired to collect the data, perform data entry, and conduct statistical analysis under the supervision of NMFS economists. NMFS economists and WPRFMC staff will use the data for regulatory analysis.

³ Dr. Minling Pan, Pacific Islands Fisheries Science Center, National Marine Fisheries Service and can be reached at 808-944-2190.