

**SUPPORTING STATEMENT
REGIONAL ECONOMIC DATA COLLECTION PROGRAM
FOR THE GULF COAST REGION OF ALASKA
OMB CONTROL NO. 0648-xxxx**

A. JUSTIFICATION

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

Regional or community economic analysis of proposed fishery management policies is required by the Magnuson-Stevens Fishery Conservation and Management Act (MSA), National Environmental Policy Act (NEPA), and Executive Order 12866, among others. To satisfy these mandates and inform policymakers and the public of the likely regional economic impacts associated with fishery management policies, appropriate economic models and the data to implement these models are needed.

Much of the data required for regional economic analysis associated with the Gulf Coast region of Alaska fisheries are either unavailable or unreliable. Accurate fishery-level data on employment, labor income, and expenditures in the Gulf Coast region of Alaska fishery and related industries are not currently available but are needed to estimate the effects of fisheries on the economy of the Gulf Coast region of Alaska. To remedy this information gap, this information collection will gather data from industry sources (i.e., commercial fishing vessel owners, local businesses) on these important regional economic variables needed to develop models that will provide more reliable estimates and significantly improve policy-makers' ability to assess policy effects on fishery-dependent communities in the Gulf Coast region.

For the same reasons as stated above, this information will also be collected from vessels in the Southwest region of Alaska. An information collection request was submitted to OMB in March 2007.

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 be summarized and used by the economists conducting the data collection program [an Alaska Fisheries Science Center (AFSC) economist and a contractor at the University of Alaska, Fairbanks(UAF)] to revise the deficient fishery data in IMPLAN (IMPact analysis for PLANning, Minnesota IMPLAN Group) which is a commercially available regional economic data set. After revision of the IMPLAN data is completed, the revised IMPLAN data will be used to develop regional economic models for fisheries in the Gulf Coast region of Alaska, including models such as input-output (IO) models and computable general equilibrium (CGE) models. The resulting regional economic models will be used to estimate the impacts of fisheries resulting from

changes in fishery management policies for the fisheries in the Gulf Coast region of Alaska, and thus provide policy-makers with additional information to aid in decision making.

In this project, two different data collection methods will be used: (1) a mail survey of vessel owners and (2) telephone interviews with local businesses including fish processors. The mail survey will be used for three different vessel classes – small, medium, and large vessels. The Small vessel class includes all vessels 32 ft and smaller. The Medium vessel class includes all vessels that are larger than 32 ft, but equal to or smaller than 90 ft. The Large vessel class includes all vessels larger than 90 ft.¹ Two different versions of the mail survey were developed, one for the small vessel sector and the other for medium and large vessel sectors. Attachment A contains the two different versions of the survey. Telephone interviews with local businesses and fish processors will also be conducted. The phone scripts for interviews with these businesses are found in Attachment B. Each of these two data collection methods is described below. Attachment C contains (a) an advance letter for the mail survey, (b) an initial mailing letter (or cover letter) for the mail survey, (c) a postcard reminder for the mail survey, (d) a follow-up phone call script for the mail survey, and (e) an advance letter that will be sent to local businesses contacted for the phone interview.

Mail Surveys for Vessel Owners

The surveys for the fishers are structured to gather a limited amount of information related to specific IMPLAN data requirements for employment and specific components of personal income and value added. This includes questions about numbers of crew

¹ IMPLAN data provides only aggregate information on harvesting activity; there is only one single harvesting sector in IMPLAN data. To estimate the potential impacts of fishery management actions on individual harvesting sub-sectors, it is necessary to disaggregate the whole harvesting sector into different sub-sectors. Since Alaska fisheries are very complicated, there are many different ways of dividing the harvesting sector into sub-sectors. There is no ideal, clear-cut way of dividing the harvesting sector. In this project, the Gulf Coast harvesting sector is divided into three vessel classes depending on various factors such as (1) sizes of the vessels, (2) species caught, (3) geographic distribution of the economic impacts, (4) other factors. This division of vessel classes was supported by Alaska fisheries experts as well as University of Alaska, Fairbanks (UAF) economists familiar with Gulf Coast fisheries. The following is the rationale used to divide the harvesting sector into three different vessel classes.

Small vessel class: The 32 ft upper limit is set because it is the size limit in some major Alaska fisheries on drift netters and gillnetters which catch mostly salmon. These vessels are characterized by very similar expenditures and income. This vessel class includes 831 vessels (population size) in the Gulf Coast fishery. Also, the economic impacts (expenditures and income) associated with small vessel fisheries occur mostly within local areas.

Medium and large vessel class: It is generally accepted that 90 ft is the limit for safe operation on the high seas. Operation of sub-90 ft vessels (medium vessels) is generally more local than over-90 ft vessels (large vessels). Therefore, medium vessels' local spending per unit of output is higher than that of large vessels which transit from home port (located mostly in Washington or Oregon) to fishing grounds. Medium vessels' activity will thus likely have most of their economic impacts on the Gulf Coast region while large vessels' activity are more likely to have multi-regional impacts on both the Gulf Coast, other regions of Alaska, and the West Coast. Most of the fish species caught by large vessels is groundfish while those by medium vessels are more varied.

members and skippers, crew share, ownership, and participation of owners in fishing activities to identify labor and capital income components of owner's fishing income. Additional questions are targeted to identify specific fisheries-related crew, skipper, and ownership shares of income from ex-vessel value. The resulting information will provide a complete set of IMPLAN data for use in constructing three fishing vessel sectors in the Gulf Coast region of Alaska, specifically the components of value added and employment.

The following is a discussion of specific questions in the small vessel survey (Attachment A). Since the questions in the large/medium vessel survey are the same as those in the small vessel survey except that the small vessel survey has an additional question (Question 6), discussion of the questions in the large/medium vessel survey will not be provided. The explanation of each question relates the purpose of the question to the data needs of the regional economic model for the Gulf Coast region of Alaska.

Questions on Vessel Information: Question 1 is intended to determine the accuracy of data that is already in the possession of the researchers. Determination of accuracy is critical to the cost engineering component of the study which will be conducted to impute operating costs after the data collection is completed².

Questions on Skipper and Crew Payment and Employment Information: The first three questions (Questions 2 to 4) ask about employment of skippers, crew, and owners. Question 5 obtains information on the residency of crew, skipper(s), and owners who provided labor in harvesting fish. Question 6 obtains information on fishery-based employment for fisheries that are not year round. Question 7 is used to estimate payments to the crew and skipper. More detailed explanation of each question is given below.

² The cost engineering study will rely on this vessel information to specify an average vessel for determination of operating, maintenance, and depreciation costs associated with each vessel class. For more details and examples of this type of study, see:

Cross, T. 1998. "Machinery Cost Calculation Methods." Agricultural Extension Service, University of Tennessee Institute of Agriculture, AE&RD No. 13.

Patterson, P. and R. Smathers. 2006. "Custom Rates for Idaho Agricultural Operations, 2005-06." University of Idaho College of Agricultural and Life Sciences, Bul 729.
<http://info.ag.uidaho.edu/pdf/BUL/BUL0729.pdf>

Pacific Northwest Cooperative Extension. 1998 (revised in 2001). "Costs of Owning and Operating Farm Machinery in the Pacific Northwest" PNW0346.
<http://cru84.cahe.wsu.edu/cgi-bin/pubs/PNW0346.html>

- Question 2 provides the gross employment numbers to be used in the IMPLAN model.
- Question 3 provides information on how many months in the calendar year the survey respondent was an owner of the vessel. If the owner owned the vessel for less than a full year, the information from this question could be used with the data from Question 7 to approximate the annual income to crew and skipper(s).
- Question 4 is the most complex and provides information needed to determine employment by fishery, and to provide information which will be needed to estimate employee compensation, proprietor income, and other property income when combined with answers to questions that follow.
- Question 5 will account for regional (the Gulf Coast region of Alaska) employment of crew, skipper(s), and owners (by species).
- Since P&I payments only occur during the active season, information from Question 6 will allow us to calculate fishery-based employment for fisheries that are not year around. For the large/medium vessel survey, this question is not included, as the large/medium vessel owners that we spoke to indicated that it would not be appropriate for them.
- Question 7 will allow the estimation of crew and skipper payments. This information contributes to the research goal of determining employee compensation and proprietor income.

The survey concludes with space for respondents to comment on the survey or the general study.

Telephone Interviews with Local Businesses

The objective of conducting telephone interviews with local businesses is to gain information on what amount (in dollars) of the intermediate inputs were sold by local businesses to each vessel class. Since each local business typically sells goods and services in a single North American Industry Classification System (NAICS) sector and the NAICS sector that the business is in will be known from the Alaska Division of Community Advocacy (http://www.dced.state.ak.us/dca/commdb/CF_COMDB.htm), interviews with businesses in the Gulf Coast region of Alaska will be based on only a few questions. Attachment B has the phone scripts with the detailed questions. Several days before phone calls are made to local businesses, an advance letter will be sent to them informing them of the purpose of the study, indicating that they will soon be called to participate in the study, and letting them know what type of questions will be asked. The advance letter is contained in Attachment C. Once the information on input sales to the vessel classes is obtained, it will be mapped into IMPLAN sectors, and be used to revise IMPLAN data. The interviews with local businesses will gain a very limited piece of information from each business that will be used to construct the Gulf Coast region of Alaska production function in IMPLAN.

Telephone Interviews with Fish Processors

Because fish processors are the most important local businesses for the fleet, their interactions with the fleet are very important in the Gulf Coast regional economic models. The questions that are asked of them will be slightly more complicated because they are a multi-commodity and multi-service provider to individual vessels. Their activities are limited mainly to selling the following to the fleet(s): fuel and lubricants, groceries, fishing gear, vessel mechanical parts, vessel equipment, repair services, and bait. Extensive interviews with processors provided guidelines in terms of how to ask these questions. In the phone interview³ with fish processors, we will ask them about their sales of the above goods and services to each of the three vessel classes. Attachment B contains the phone scripts with the detailed questions for fish processors. Since the investigators have already established personal relationships with the principal fish processors and they know that they will be contacted, no advance letter needs to be sent. Once the information on fish processors' sales to the vessel classes is obtained, it will be used to revise the IMPLAN data and the production functions in the data.

As explained in the preceding paragraphs explaining the two methods of data collection, the information to be 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 Item #10 below 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. Although the information collected is not expected to be disseminated directly to the public, results may be used in scientific, management, technical or general informational publications. Should NOAA Fisheries decide to disseminate the information, it will be subject to the quality control measures and 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.

³ The fish processors have very sophisticated accounting systems, and have detailed cost information which the interviewers will be requesting. There are several reasons why a phone interview approach was chosen as the method of collecting information from fish processors. First, in gathering information from people engaged in fisheries in Alaska including fish processors, it is very important to build a personal relationship to obtain the necessary information. Based on this relationship, a telephone interview is more effective than a mail-out survey. Second, respondents to mail-out survey, especially those respondents engaged in fishery-related activities in Alaska such as vessel owners, local businesses, and fish processors, suffer from "survey respondent fatigue" since so many agencies, universities, and other institutions are sending them various surveys. Most of the mail-out survey respondents, especially if the survey is voluntary and does not provide any monetary or non-monetary reward, will just ignore and throw away the mailed surveys when they receive them. This is why the response rates of mail-out surveys for fisheries have traditionally been so low. For the vessel owner survey in this project, it is infeasible to conduct phone interviews for each of the vessel owners since the population is so large. However, if the population size is relatively small as in the case of fish processors, telephone interview will generate higher response rate when conducted based on the personal relationship already established. (RESPONSE TO COMMENT #1)

The information collection does not involve use of any of the above information technology techniques. While it is easier for the investigators to collect the necessary information through emails in this project, most of the survey respondents (including vessel owners, local businesses, and fish processors) would find it more inconvenient to respond in emails compared with telephone interviews or even mail-out surveys - and they may not have internet access. More importantly, in the case of obtaining information on Alaska fisheries, it is the personal relationship that is being developed that will lead to responses, not the survey method. Therefore, unless personal contact or relationship between investigators and the respondents are developed, the respondents will simply ignore the e-mail surveys. (RESPONSE TO COMMENT #2).

4. Describe efforts to identify duplication.

An extensive search was conducted to find studies that collect regional economic information for the study region, but did not yield any applicable studies. However, several other data collection efforts for other regions in Alaska are noteworthy. One study collected regional economic information for Southeast Alaska from 1995-96 (for year 1994)⁴. Another study that tried to collect regional economic information in Alaska is a study related to the snow crab fishery in the Bering Sea and Aleutian Islands region⁵. Thus, the present project represents the first regional economic data collection project for the study region and covers all fisheries instead of focusing solely on a subset of fisheries.

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

Telephone interviews with small local businesses (suppliers) in the Gulf Coast region of Alaska will be used to obtain information about vessel expenditures on groceries and other goods and services provided to commercial fishermen. To minimize the burden, only a few questions will be asked of them and the phone call per business entity will be less than 15 minutes. Some of fish processors are small businesses and the phone call for each of these processors will be less than 40 minutes. This is a minimum amount of time required to obtain the necessary information from the processors. (RESPONSE TO COMMENT #3) The survey of vessel owners was constructed so as to minimize the amount of time required to answer questions. For example, questions on vessel expenditures are omitted from the survey to minimize burden. Also, characteristics specific to the vessel are pre-printed in each individual survey so that the respondent does not have to spend time on recalling or looking them up. This will also contribute to minimizing burden. Questions are limited in number and scope, thereby minimizing the burden to each respondent.

⁴ Hartman, J. 2002. *Economic Impact Analysis of the Seafood Industry in Southeast Alaska: Importance, Personal Income, and Employment in 1994*. Regional Information Report No. 5J02-07. Alaska Department of Fish and Game.

⁵ Herrmann, M., J. Greenberg, C. Hamel, and H. Geier. 2004. *Regional Economic Impact Assessment of the Alaska Snow Crab Fishery Integrated with an International Snow Crab Market Model*. University of Alaska, Fairbanks, School of Management Working Series Report 2004-001.

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

No other entity is likely to collect the information needed for resolving the IMPLAN deficiencies. Therefore, if the data collection is not conducted by us, the deficiencies in the IMPLAN data will not be fixed, and therefore, the mandates of MSA, NEPA, and Executive Order 12866 described in Item #1 above will not be satisfied.

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

None.

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.

During the public notice period, three individuals asked for copies of the mail survey forms. In response to the requests, we provided the forms to them. One of them also asked for information on the sampling procedures, and asked about data collection and estimation methods (such as population sizes, sample sizes, and out-of-region expenditures). We replied to him with the requested information. Another person also asked about the methods to be used for the project, including questions about what information we will collect and what methods (mail survey, phone interview) we will use. We provided the answers to her.

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

We do not have any plan to provide any payments or other gifts to the respondents.

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

On the first page of the survey, we provided a confidentiality statement as follows:

CONFIDENTIALITY: Per Section 402(b) of the Magnuson-Stevens Act (16 U.S.C. 1801, et seq.), all individual surveys will be held by only a limited number of researchers at UAF 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 metal cabinet. These individual surveys will be destroyed upon completion of the study. Your name, vessel identification and address will be used only for mailing and survey administration purposes. Only summary results will be reported to the public. NMFS and other agencies will receive only aggregate results in summary form.

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

The estimated number of respondents is 500. The estimated total annual burden hours are 171. These numbers are derived as follows: According to the Gulf Coast of Alaska vessel revenue data for year 2005⁶ (Commercial Fisheries Entry Commission), the population size (the total number of harvesting vessels that landed fish at Gulf Coast region ports) is 1,846. This population consists of three subpopulations – small vessels (831), medium vessels (964), and large vessels (51). The optimal sample size⁷ for each subpopulation is calculated using the sampling procedures described in Attachment D assuming a ±10% error in the estimate of population totals of interest and an alpha of 0.05. The resulting optimal sample sizes are 197 and 180 for small and medium vessel classes, respectively. To achieve these numbers of respondents for the two vessel classes (small and medium), assuming a 55% response rate, 359 surveys for the small vessel class and 327 surveys for the medium vessel class need to be mailed out. Since the population size of the large vessel class is very small (51), we will send the surveys to all the large vessel owners.⁸ This means that a total of 737 surveys need to be mailed out

⁶ We plan to collect 2005 data since the latest IMPLAN data to be revised with the survey data will also be from 2005.

⁷ Optimal sample size as used here is the number of vessels needed for analysis to achieve the level of precision desired given an allowed error of population estimate and an alpha.

⁸ Here, we are conducting a census for the large vessel class, where the sample size is equal to population size (N). Since the survey is a voluntary survey, there will be some non-respondents. In this case, the population totals (employment and labor income) will be estimated simply as:

$$\hat{Y} = \left(\frac{\sum_{i=1}^N X_i}{\sum_{i=1}^r X_i} \right) \sum_{i=1}^r y_i$$

where X_i : auxiliary variable (vessel revenue) of i^{th} unit,
 r : number of respondents,
 y_i : response sample data of i^{th} unit (employment or labor income), and

and a total of 405 vessels are expected to complete surveys assuming a 55% response rate. Regarding the number of respondents from telephone interviews, all the units in the population (146) will be contacted. Assuming a 65% response rate⁹, the estimated number of respondents will be about 95 (66 local businesses and 29 fish processors). Therefore, the total number of respondents from mail survey and telephone interviews is estimated to be 500. Since it is estimated that about 20, 15, and 40 minutes will be taken to conduct vessel owner survey, local business phone interview, and fish processor phone interview, respectively, the estimated total annual burden hours are 171. See the table below for details.

$$\frac{\sum_{i=1}^N X_i}{\sum_{i=1}^r X_i} : \text{adjustment factor for non-response.}$$

We will assume that a sampling unit is either always a respondent or always a nonrespondent (i.e., the response mechanism is fixed). This will imply that the variance of the estimate is zero. Under this assumption, all of the error in the estimate is due to nonsampling error. Therefore we will publish the response rate in conjunction with the estimate so that the data user can have some intuitive feel for the quality of the estimate. The above assumption that the sampling unit is always a respondent or always a nonrespondent is more than likely not totally true. This may be true for many sampling units, but for other sampling units the probability of responding is greater than zero and less than one. Variance formulas could be derived if these probabilities of responding were known, but since they're not, we will assume that they are either zero or one (Personal Communication, John Slanta, U.S. Census Bureau, 2007). For the other two vessel classes (medium and small vessel classes), we will use unequal probability sampling (UPS), which is described in detail in Attachment D.

⁹ We assume a 65% response rate based on previous studies which show that, on average, about 65% response rate was achieved for phone interviews with local businesses and fish processors. These studies include:

Herrmann, M., J. Greenberg, C. Hamel, and H. Geier, March 4, 2004. "Regional Economic Impact Assessment of the Alaska Snow Crab Fishery Integrated with an International Snow Crab Market Model." University of Alaska Fairbanks School of Management Working Series Report 2004-001.

Greenberg, J., M. Herrmann, H. Geier, and C. Hamel, January 2002. "Wild Salmon Risk Management in Bristol Bay Alaska: Draft Final Report." University of Alaska Fairbanks. Report to the United States Department of Agriculture.

Herrmann, M., S.T. Lee, C. Hamel, K. Criddle, H. Geier, J. Greenberg, and C. Lewis. June 2000. An Economic Assessment of the Marine Sport Fisheries for Halibut, and Chinook and Coho Salmon in Lower Cook Inlet. @ OCS Study Minerals Management Service 2000-046. Annual Report No. 6. Coastal Marine Institute, University of Alaska.

Information Collection	Number of respondents	Responses per respondent	Estimated time per response	Estimated hours (responses multiplied by time per response)
Small Vessel mail survey	197	1	20 minutes	65.7
Medium Vessel mail survey	180	1	20 minutes	60.0
Large Vessels mail survey	28	1	20 minutes	9.3
Local business phone interviews	66	1	15 minutes	16.5
Fish processor phone interviews	29	1	40 minutes	19.3
TOTALS	500			170.8

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).

The estimated total annual cost to public is \$0.

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

The total cost of this data collection project is estimated to be \$6,187, which covers (a) labor cost for implementing the survey and (b) mailing costs (for mail surveys, advance letters, and postcard reminder) and telephone calls for interviews. Since we will use the same survey questions as those developed for Southwest Alaska regional economic data collection project, the survey development costs for the current project (Gulf Coast project) are zero. The project will take one year and therefore, the annualized cost is \$6,187.

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

This is a new program.

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

The data collected will be used to revise IMPLAN data for the study region. The collection of data is expected to start in August 2007. Based on this estimated starting

time, the revision of IMPLAN data and generation of a balanced social accounting matrix (SAM) will be completed by February 2008. Summary results of data collection will be published in a project report, but will not be made available on the Alaska Fisheries Science Center's website. Results from regional economic models to be developed using the data will be published in a peer-reviewed journal.

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.

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