## Appendix B

## Additional Information for Response to Item 2: For What Purpose the Information Is To Be Used

How the information will be used: NMFS and the Regional Fishery Management Councils (Councils) will use this information to monitor, explain and predict changes in the economic performance and impacts of the commercial and charter harvesting sectors of federally managed fisheries. Those uses of the data would allow more than cursory efforts to comply with or support a variety of laws, Executive Orders (EOs), and NOAA strategies and policies, where the laws include the Magnuson-Stevens Fishery Conservation and Management Act (MSA).<sup>1</sup> In addition, those uses of the data would contribute to a well-informed, science-based fisheries conservation and management decisions making process, which should increase the net benefits to the Nation. The measures of economic performance include costs, earnings, and profitability (net revenue); productivity and economic efficiency; capacity; economic stability; the level and distribution of net economic benefits to society; and market power. The economic impacts include sector, community, or region-specific and national employment, sales, value-added, and income impacts. The efforts to monitor, explain and predict changes in economic performance and impacts are ongoing and contribute to the value of the information contained in regulatory analyses of current and proposed fishery conservation and management measures, stock assessment and fishery evaluation (SAFE) reports, as well as other technical and scientific reports that address changes in economic performance and impacts. As required by the MSA, the Scientific and Statistical Committee of each Council reviews the data and models used in the economic analyses NMFS or Council staff provide for the Council process. In addition, various advisory groups and the public review the results of such analyses.

**Types of information to be collected:** The following is a summary of the types of questions that will be included in the surveys and the need for each type of question. The questions asked for a specific fishery will depend on a variety of factors including the availability of complementary information from other sources, fishery-specific fishery management issues, the history of the information collection program(s) for a fishery, and the historic or expected effects of a fuller suite of questions on response rates.<sup>2</sup>

**Question 1. Vessel Characteristics:** Information on United States Coast Guard (USCG), NOAA and state identifiers is necessary to help identify specific vessels. While much of the information on physical characteristics such as hull type, tonnage, length, and engine power exists in other sources, these data are often outdated, missing or conflicting. Information on other vessel characteristics, such as engines, fuel capacity, electronics, and the difficulty in switching gears is typically not available from other sources. Vessel characteristics information is useful in assessing the ability and desire of vessel owners to participate in a fishery and to make general decisions concerning harvesting plans given changes in regulations and

<sup>&</sup>lt;sup>1</sup> See Appendix A for a discussion of those laws, EOs, and NOAA strategies and policies.

<sup>&</sup>lt;sup>2</sup> See the question bank for more detailed information on the questions to be included in the proposed information collections.

environmental or market conditions.

**Question 2. Vessel Ownership:** Questions regarding ownership are necessary to provide linkages between seemingly independent entities. Often, individual vessels and post-harvesting facilities are treated as separate entities when in reality they are part of a larger company. Uncovering these linkages is useful to analysts in identifying small entities as defined by the Regulatory Flexibility Act and in modeling the behavior of these vessels. In addition, these questions are useful in terms of demographic interest; however, evaluation of owner participation also plays a role in predicting whether marginal vessels will stay in business. For example, the owner of a vessel with zero or slightly negative net profits may decide to remain in the fishery if the owner is deriving a wage from personally operating a vessel. On the other hand, an owner who hires a skipper may be more likely to choose to exit the fishery under a similar circumstance. Finally, vessels with a wider species base, or vessels that are part of a larger company may be more capable of weathering a fishery downturn.

**Question 3. Capital and Other Asset Costs:** We designed this series of questions to provide information analysts can use to estimate market value and replacement costs of major existing assets, including limited entry permits and catch share privileges, and the economic life of these major assets. NMFS uses these values to calculate the economic opportunity costs of capital goods and other assets that it in turn uses to calculate net economic benefits to the nation of industry participation. NMFS also uses them for conducting financial analyses as required by the RFA.

**Question 4. Fixed and Variable Costs:** For a fishing vessel, fixed costs are expenses that generally do not vary with the level, type and location of fishing activities. They are fixed over the short-term but some of them may be eliminated if a vessel owner decides not to engage in any fishing activity for a period of time. Examples of fixed cost include payments for interest and principal, vessel and equipment maintenance, vessel moorage or storage or gear storage, overhead, insurance, licenses, and permits. Conversely, variable costs are expenses that vary with the level, type and location of fishing activities. Examples of variable costs include payments for crew, food, fuel, bait, and ice. Both fixed and variable costs are necessary to: (1) estimate the net value of participation in the fishery; (2) assess the expected changes in net benefits due to proposed management actions or changes in environmental or market conditions; (3) estimate the income, value added, sales, and employment impacts of a fishery or proposed management actions; and (4) assess, in combination with catch and revenue information, the relative importance and dependence of the vessel on harvesting versus other income producing activities of the vessel. The fixed costs must be allocated among the various activities of a vessel to estimate the net economic value of an activity. The variable costs can be used for allocating fixed costs between different activities, as well as to model when expenses are incurred and when revenues are received. For some purposes, such as for estimating productivity or explaining and predicting changes in costs, we need information for both the quantities and price of an input purchased. Similarly, to explain or predict changes in payments to the captain and crew, we need information on the current crew share systems.

**Question 5. Effort and Gear:** The analysts can use the responses to these questions to describe and quantify fishing effort in terms of crew size and gear deployed, as well as the cost of changing the type of gear fished. This information can be used in developing models: (1) to estimate efficient fleet size in support of such activities as fleet reduction programs and (2) to monitor, explain and predict changes in fishing costs and employment.

Question 6. Catch and Revenue, Including Revenue from a Variety of Fishing and Nonfishing Activities: Revenue information, in conjunction with cost information, is necessary to derive net economic value; and revenue information from each activity can be used to allocate fixed costs between different activities and as part of the assessment of relative dependence on the fishery. If it is not available from other sources, fish prices information is needed to help explain and predict changes in ex-vessel revenue. For fishing vessels delivering to fish handling facilities, questions about revenue are important to capture end-of-year settlements or in-kind payments not reflected in the trip level data (e.g., fish ticket, logbook and dealer report data). For fishing vessels delivering to motherships, these questions are particularly important because, with few exceptions, there are no trip level records for at-sea deliveries. Information on revenue from other fisheries is needed because of similar deficiencies in trip level data, and lack of access to confidential information for fisheries in some states. In addition, if the respondents calculate their net income based on their other answers and the result is out-of-line with their experience, they may stop to consider whether they have answered the preceding questions on costs and revenue correctly and entirely. Further, if respondents provide previously calculated net income without checking for consistency, or if analysts compare the reported values with trip level revenue information where available, analysts may derive a result different from the survey responses alerting them to some degree of incompleteness in either the survey or the responses to the questions.

**Question 7. Opportunity Cost of Capital:** The responses to these questions are used to calculate net economic benefits to the nation of industry participation, to determine alternative uses of capital under the existing regulatory environment, and to determine potential new uses of capital given changes in regulations and environmental or market conditions.

**Question 8. Links to Communities and Regions:** One assumption generally made in assessing the community or regional economic impacts of a fishing vessel is that all of its crew live in the coastal area of the vessel's homeport and spend most of their related earnings in that area. Similarly, current models assume most other expenses for the vessel occur in the port where fish are landed. However, given the ownership of multiple fishing vessels, vessels that operate out of multiple ports, and geographically mobile vessel crews, these simplifying assumptions may be erroneous. The additional information solicited in these questions is necessary to provide the ability to more accurately estimate the magnitude and geographic distribution of economic impacts.

**Question 9. Labor and Demographics:** NMFS uses this information to: (1) estimate the effects of fisheries and proposed fishery management actions on specific fishing communities; (2) determine alternative uses of capital and labor under the existing regulatory environment; (3) determine potential new uses of labor in light of regulatory change and changes in environmental or market conditions; and (4) determine general community employment. Income-related

questions will allow a systematic assessment of the degree to which individuals are engaged in and dependent on fishing-related activities. Questions on age, ethnicity, language, and education will give social scientists a better grasp of issues related to socio-cultural background and specifically highlight potential issues, such as mobility, vulnerability and marginalization. Especially in small-scale fisheries, the fishing business and the household are often intricately entwined, making household demographic/labor questions critical to understanding the fishery.

**Question 10. Fishing Strategies and Other:** There are questions concerning business strategies, such as fishery entry or exit, target species, when, where and how to fish, and responses to exogenous shocks, including fishery management changes and natural and manmade disasters. The other questions cover factors that affect fishing success, distribution and marketing, future fishing conditions, fisheries management priorities, and attitudes or preferences. We need this type of information to understand the general business climate in which these vessels operate, to assess the bargaining and buying/selling strategies at various levels of the distribution chain and to understand any unusual factors that have substantially affected the economic performance and impacts of the fisheries. Understanding these factors helps to distinguish between changes associated with fisheries management and other factors, including synergistic or cumulative effects of the general economy. That greatly aids in predicting and interpreting changes in output prices and input costs; and it is particularly important because, with one exception, NMFS conducts each information collection only once every two to seven years.