

**SUPPORTING STATEMENT  
SOCIO-ECONOMIC SURVEY OF HIRED CAPTAINS AND CREW IN NEW  
ENGLAND AND MID-ATLANTIC COMMERCIAL FISHERIES  
OMB CONTROL NO. 0648-XXXX**

**INTRODUCTION**

This request is for a reinstatement with change, of a previously approved collection (NO. 0648-0636) which was discontinued on 5/31/2014. In the previously approved collection, there were two surveys; one was for vessel owners and the other was for crew. However, the purpose of this data collection request is to repeat (with changes) the crew survey only because we do not need further information from vessel owners at this time. Therefore, we made changes to the crew survey instrument only and modified the sampling approach. See section A15 for detailed changes.

The National Oceanic and Atmospheric Administration's (NOAA) Northeast Fisheries Science Center's Social Science Branch (SSB) in Woods Hole, MA intends to survey crew (including hired captains) in the commercial fishing industry in the Northeast Region (i.e., New England and the Mid-Atlantic states). The survey will collect representative, socio-economic data on crew and will be repeated every 3-5 years to allow for tracking trends over time. SSB intends to collect data from a variety of ports and fishing sectors to compare baseline data collected in 2012-2013. Since it has been 5 years since the previous data collection, it is critical that this PRA is processed as soon as possible so we can begin surveying crew by July 2018. It is imperative that we implement the survey as soon as possible to stay within the 3-5 year window to ensure continuity of the trend analyses.

**A. JUSTIFICATION**

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

The purpose of this survey is to provide for the ongoing collection of social and economic data related to fisheries and their communities in the Northeast Region. These data are needed to support fishery performance measures developed by NOAA's Northeast Fisheries Science Center's Social Science Branch (SSB) in Woods Hole, MA. The measures are: financial viability, distributional outcomes, stewardship, governance and well-being. Table 1 provides definitions for each performance measure and specifies the indicators SSB intends to track for each measure. Although data to support some indicators are already routinely collected by NOAA's Fisheries and available from other publicly available sources, these data do not provide information for many of the indicators. Additionally, many of the indicators will require information that can be provided only by participants in the commercial fishing industry. Therefore, surveying participants in the commercial fishing industry will provide the best and most reliable source for information not currently available. This survey will also fill in knowledge gaps by collecting trend data needed for deeper analyses of changes in fisheries, including impacts from changes in regulations.

Table 1. Performance Measures Definitions

<b>Performance Measure</b>	<b>Definition and Indicators</b>
Financial Viability	<p><i>Definition:</i> The financial condition of fishing vessel owners and crew, fishing households, business that provide fishing related goods and services (e.g., fuel, ice, gear, insurance), and businesses in the marketing chain (processors, dealers, retailers).</p> <p><i>Indicators:</i> profitability and productivity; landings and distributions over time</p>
Distributional Outcomes	<p><i>Definition:</i> The outcomes and implications related to how the benefits and costs of a catch share program are distributed among individuals, groups, and communities. Its major focus is on access/exclusion to quota and fishing opportunities, concentration of quota, and employment opportunities.</p> <p><i>Indicators:</i> employment trends; ownership trends; price of quota/ability to purchase quota; community scale outcomes</p>
Stewardship	<p><i>Definition:</i> The degree to which participants use the resource in a careful and responsible way. Additionally, the degree to which participants' have a sense of stewardship.</p> <p><i>Indicators:</i> compliance; bycatch/discards/highgrading; conservation ethic; activities that benefit the stock</p>
Governance	<p><i>Definition:</i> The degree to which stakeholders participate in the process of decision making and implementation, the transparency and legitimacy of that process, the effectiveness and complexity of regulations, and the degree of adaptability/flexibility of the management process. An additional component is the cost to government to implement a management program and cost to participants.</p> <p><i>Indicators:</i> participation in governance; effectiveness; transparency/legitimacy; conflict; adaptability/flexibility; management costs; management complexity</p>
Well-Being	<p><i>Definition:</i> The degree to which an individual, family, or larger social grouping (e.g., firm, community) can be characterized as being healthy (sound and functional), happy, and prosperous (Pollnac et al. 2006/08).</p> <p><i>Indicators:</i> health status and access to health insurance; community level indicators; port infrastructure; job satisfaction; changes in social networks and relationships; safety</p>

These performance measures and indicators will be essential to assessing the social and economic impacts of various fishery management policies over the near and long term, including catch share systems. Currently, little data exist that allow for tracking the social impacts of

fishery management policy and decisions over time in the Northeast Region, and insufficient economic trend data are available. In implementing policies and management programs, there is a need to understand how such policies and programs will affect the social and economic characteristics of those involved in the commercial fishing industry. The [National Environmental Policy Act](#) (NEPA) and the [Magnuson-Stevens Fishery Conservation and Management Act](#) (MSA), as amended, both contain requirements for considering the social and economic impacts of fishery management decisions.

### *Context for fishery management assessments*

#### **NEPA**

NEPA requires federal agencies to consider the interactions of natural and human environments, and the impacts on both systems of any changes due to governmental activities or policies. This consideration is to be done through the use of ‘...a systematic, interdisciplinary approach that will insure the integrated use of the natural and social sciences...in planning and decision-making which may have an impact on man’s environment;’ (NEPA Section 102 (2) (A)). Under NEPA, an Environmental Impact Statement (EIS) or Environmental Assessment (EA) is required to assess the impacts on the human environment of any federal activity. NEPA specifies that “the term ‘human environment’ shall be interpreted comprehensively to include the natural and physical environment and the relationship of people with that environment” (Council on Environmental Quality NEPA Implementing Regulations 40 CFR 1508.14). In addition, under 40 CFR 1508.7, CEQ Implementing Regulations make clear that regulators must consider cumulative impacts. These are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.”

#### **MSA**

Under the MSA there are a variety of requirements related to social, cultural and economic issues for fishermen and their communities.

National Standard 8 (section 301(8)), for instance, requires that: "Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), 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. Section 303(b)(6) on limited entry requires examination of "(A) present participation in the fishery, (B) historical fishing practices in, and dependence on, the fishery, (C) the economics of the fishery, (D) the capability of fishing vessels used in the fishery to engage in other fisheries, (E) the cultural and social framework relevant to the fishery and any affected fishing communities, and (F) any other relevant considerations." Section 303(a)(9) on preparation of Fishery Impact Statements notes they "shall assess, specify, and describe the likely effects, if any, of the conservation and management measures on--(A) participants in the fisheries and fishing communities affected by the plan or amendment; and (B) participants in the

fisheries conducted in adjacent areas under the authority of another Council, after consultation with such Council and representatives of those participants."

**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.**

Purpose

SSB intends to collect socio-economic data from crew (including hired captains) involved in commercial fishing in New England and the Mid-Atlantic states. As noted above, the primary use of these data will be to track a set of defined performance measures and indicators over time. These performance measures and indicators will be used to assess the impacts of changes in fishery management policies by tracking changes in the indicators before and after implementation of the fishery management policies. Additionally, these data will provide useful inputs into development of policies and strategies by providing representative social and economic information on participants in the Northeast commercial fishing industry.

SSB plans to develop reports and analyses using these data to examine trends and relationships in the data to better inform policy and understanding of the commercial fishing sector in the Northeast Region. These reports will be provided to the public and many of the reports will be valuable to the New England and Mid-Atlantic Fishery Management Councils in their decision-making processes.

Type of Information Collected and Rationale

This survey is designed to obtain information from crew in the commercial fishing industry in the Northeastern U.S (Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, Virginia, and North Carolina). The survey protocol is organized into sections to help guide the collection of data. In what follows, we provide a brief description of the information being requested from the survey respondents and the reasons for collecting this information.

*Primary fishery, fishing decisions, and vessel information*

The survey asks a series of questions that relate to the respondents' primary fishery. Specifically, to identify which fishery they consider to be their primary fishery and why. It is important to understand what fishery a respondent considers to be his or her primary one to gauge how fishery management policies affect fishery participation decisions. Additionally, this information is useful in developing more precise sampling approaches in future years by allowing for better estimates of fishery participant populations based on self-reported primary fisheries.

Information on fishing decisions such as trip length, number of crew, and ports are also helpful in understanding how fishery management policies affect the different sectors. Tracking

changes in these factors in relation to changes in fishery management policies will allow for assessing how the policies have affected these decisions.

### *Crew payment methods*

The nature of payment methods for crew on fishing vessels is unique and complex. Fishing crew are often paid a percentage of a trip's catch value with deductions for various vessel expenses (e.g., fuel, food, etc.). Crew payment methods reflect the contractual employment relation between crew and owners and ultimately the income earned by crew. Collecting this information is important for two reasons. First, a variety of methods are used (e.g., different formulas, deductions, etc.) and SSB is seeking to be able to better understand the breadth of payment structures in the industry. Second, these payment methods may change over time (e.g., in response to changes in fishery management policies), which may result in significant impacts on fishing crew livelihoods.

### *Employment opportunities*

The survey asks a number of questions related to employment opportunities such as the difficulty in finding employment, number of years with the same vessel/owner, and how they found their current position. These questions will allow SSB to track the impact that fishery management policies have on employment opportunities and to track these trends.

### *Fishing income information*

This survey asks about the extent to which commercial fishing represents a key component of respondents' income, other sources of income, and extent to which current fishing income could sustain respondents' over the short, medium, and long term. These questions are essential information in assessing the extent to which fishing represents a viable career for crew.

### *Insurance*

The survey asks a number of questions about respondents' insurance (health, vessel, etc.). Living or operating without insurance represents a risk to commercial fishermen. Not having insurance often indicates an inability to afford the insurance. Tracking trends in the extent to which owners and crew carry insurance provides an indication of the health of the fishing industry and of fishing as an occupation.

### *Family involvement*

Fishing has long been considered a family-oriented career and generations of families have often been involved in fishing. Thus, a key social aspect of fishing is the trend away from fishing as a family-oriented business and occupation. The survey asks a series of questions about respondents' family involvement in fishing. Tracking changes in family involvement is important to better understand the changing social landscape of fishing. Additionally, fishery management policies may have an impact of the familial nature of fishing and tracking trends in family involvement relative to fishery policies is also important.

### *Job satisfaction and quality of life*

This survey asks a series of questions related to job and career satisfaction and how well respondents perceive their quality of life. Tracking trends in these areas will allow SSB to assess the extent to which “life as a fisherman” is improving or declining and the extent to which fishing management policies are improving or hurting “life as a fisherman.”

### *Governance*

Fish are a managed resource and the management process itself is complex and involves significant public participation. The survey asks a series of questions about the extent to which respondents take part in the management process and their view of the process in terms of its equity, understandability, restrictiveness, adaptability, effectiveness, and other aspects. These questions will allow SSB to better understand perceptions of the fishery management process for different fisheries, which are governed by different management policies, and to track trends in perceptions over time, especially in relation to changes in management policies.

### *Conservation attitudes and perceptions of resource health*

Crew attitudes toward conservation are important for understanding how well the resource (fish) can be managed through the fishery management process. The survey will allow SSB to track trends in these attitudes over time and to assess how well different management approaches may work and whether changes in management approaches affected attitudes.

Related to conservation attitudes are perceptions of the health of the resource. NOAA collects scientific data on resource health, but perceptions of resource health are also important. Restrictions placed on fisheries where there is a perception that the resource is healthy may involve significant public opposition. Additionally, fishermen perceptions of resource health may provide important information on the actual resource health since they are interacting with the resource on a regular basis.

### *Demographics*

Collecting information on respondent demographics is important for two reasons. First, it will allow for better interpretation of the data that are collected. Second, trends in demographics (e.g., age, income, ethnic group, etc.) can be tracked to assess how the demographic composition of the industry is changing over time, especially in response to changes in fishery management policies.

### Public Dissemination

It is anticipated that the information collected will be disseminated to the public or used to support publicly disseminated information. As explained in the preceding paragraphs, the information gathered has utility. NOAA’s SSB in Woods Hole, MA will retain control over the information and safeguard it from improper access, modification, and destruction, consistent with NOAA standards for privacy and electronic information. See response to Question 10 of

this Supporting Statement for more information on 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 data being collected under this survey will involve some use of technology. Specifically, tablets will be used to record respondents' answers to the survey questions. This will not only improve the accuracy of recording respondents' answers but it will also reduce the amount of data cleaning and organizing required to prepare for analysis.

SSB will also utilize freely available survey software in order to implement surveys on tablet computers. This approach involves programming that will streamline survey implementation in the field by incorporating question skip patterns, menus for answer options, and other ease of access features common to survey software programs.

**4. Describe efforts to identify duplication.**

We are unaware of any other data collection efforts that would duplicate our efforts.

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

To minimize the burden while also maximizing information collected, SSB modified the original survey to improve the clarity of the questions based on feedback from the interviewers' experiences in the previous data collection. We also analyzed responses from the previous data collection and removed questions that did not elicit useful information. Ultimately, the modifications not only improve the types of questions but also shorten the length of the survey and reduce the burden hours on respondents. Additionally, SSB has utilized statistical sampling methods to ensure that representative data are being collected at sufficient precision without having to conduct a census of the population.

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

Not conducting the collection would significantly reduce the ability of NOAA Fisheries to assess impacts of future fishery management policies. As described in Questions 1 and 2 above, the data being collected through this survey will allow SSB to track important social and economic trends in the commercial fishing sector in relation to changes in fishery management practices. The data being collected through this survey is not available from existing sources.

In order for NOAA to identify trends or changes in the measures and indicators, SSB has set the frequency of survey implementation at a minimally acceptable rate of 3-5 years. Thus, reducing the frequency below this level would not allow NOAA to discern changes in the performance measures and indicators following changes in fishery management policies. Additionally, for the data to be valuable to the fishery management councils, data will need to be frequent enough to be relevant for council decisions. Therefore, it is imperative that we implement the survey as soon as possible to stay within the 3-5 year window to ensure continuity of the trend analyses.

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

The information collection is consistent with OMB Guidelines for Information Collections.

**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 February 21, 2018 (83 FR 7456) solicited public comments.

NOAA Fisheries received two public comments. The first was from a Jean Public. It stated that more money should be spent on law enforcement and not on surveys, which are done too frequently and are a waste of tax dollars. We were not required to respond to the email. The second public comment was from a Marlaina Mutchko. She suggested that we consider moving towards easy-to-use technology, like Survey Monkey and email, to administer the surveys, which would help reduce the burden hours on participants. In our response to the public comment, we explained that fishermen crews are a very hard-to-reach population. There is no “crew registry” with contact information (like with vessel owners) that we could use to identify the crew and send them a survey via email. As a result, we will need to administer the survey in person using an intercept approach. With this approach, interviewers will go to specific ports and seek out crew members to participate in the survey on-site.

**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.**

Information collected is protected under the Privacy Act of 1974 (5 USC 552a), which prohibits disclosing information without the written consent of the subject individual, unless



disclose is pursuant to one of twelve statutory exceptions. As stated on the survey instruments, the data collected will be kept anonymous and will not be released for public use except in aggregate statistical form. If the individual data are requested, it will be provided without identification as to its source. Because no proprietary regular business data are collected (i.e., landings or value, fishing grounds), there are no issues of confidentiality with regard to business information.

**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.**

None of the questions being asked in the survey deals with matters that are considered private.

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

Table 2 provides estimates of the total annual number of respondents, responses, burden hours, and the cost of burden hours. The surveys will involve collecting data from 1,100 respondents with each respondent providing one response for a total of 1,100 responses each time the survey is administered. SSB estimates that each response will take 20 minutes to complete, resulting in a total burden hour estimate of 367. The labor cost associated with the estimated burden hours is \$4,990.33, based on information from the Bureau of Labor Statistics (BLS) (see note [a] below Table 2).

Table 2. Estimates for the total number of respondents, responses, average time per response, burden hours, and total cost for responding.

	Universe	Total annual number of respondents	Responses per respondent	Total number of annual responses, annualized	Average response time per response	Total annualized time for responding (Burden Hours)	Average loaded hourly labor cost	Total labor cost for responding
Crew, Northeast Region	21,616	1,100	1	1,100	20 min.	367	\$13.61	\$4,990.33

[a] Labor costs are derived from BLS <https://www.bls.gov/oes/current/oes453011.htm>. The value for crew is taken as the median rate (\$13.61). The crew rate is not marked up since the crew will be taking the survey on their own time and thus their time will not incur overhead to their employer.

**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).**

The survey does not impose recordkeeping costs on the respondents since they are in person.

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

SSB developed the survey and will administer it with the assistance of contractors and University of Rhode Island graduate students. In addition to contractor costs, travel costs will be incurred to various field sites throughout the Northeast Region, and there will be costs for printing of surveys and for supplies. Data collection and processing, and report development will be conducted by both the contractor and NOAA Fisheries federal employees. The contractor costs for the survey (Table 3) are included below. Please see table below for itemized costs. In addition, one FTE (ZP-4) is expected to spend 320 hours overseeing the assessment. One FTE (ZP-3) staff will participate in the assessment for a total of 600 hours. Total FTE staff costs are \$46,000 for the crew survey.

Table 3. Estimates of annualized costs to the Federal Government for crew survey implementation.

<b>Crew Survey</b>	<b>Cost</b>
Contractor wages	\$ 130,000
Contractor travel (lodging/per diem)	\$ 16,000
SSB travel (lodging/per diem)	\$ 9,000
Tablets	\$ 8,000
Printing	\$ 500
Total	\$ 163,500

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

In the previously approved collection, there were two surveys; one for vessel owners and the other for crew. Since we do not need further information from vessel owners at this time, we intend to repeat (with changes) the crew survey only. Therefore, we made changes to the crew survey instrument only and modified the sampling approach.

The survey has been modified to increase response rates and minimize burden. During the previous data collection, the survey took significantly longer to complete than anticipated, resulting in reduced number of completed surveys. Therefore, the survey length has been substantially reduced to include questions that provided the most useful information and remove questions that were unclear or redundant. Open-ended questions in the previous version that had elicited overly specific and detailed responses have been converted to closed-ended, single or multiple choice questions. These closed-ended questions were crafted based on results from descriptive information extracted from the previous survey data. Shifting from open-ended to closed-ended questions also allows for easier data management and analyses after data collection ends, thus reducing burden hours on SSB staff. These modifications not only improve the types of questions being asked, but also shorten the length of the survey and reduce the burden hours on respondents, too. These improvements may also result in more completed surveys, thus increasing the response rate.

Based upon the outcome of the previous data collection, the sampling strategy has been modified to increase response rates, streamline the data collection effort, and ensure that the most active ports are included in the sample. The previous data collection stratified by fishery first and then sampled by port using a proportional method to give weight to larger ports. Unfortunately, this approach did not achieve the expected response rates by fishery

and missed key ports throughout the region. Given that this population is difficult to reach and we are using an intercept method at docks, we are not able to simultaneously target particular fisheries and ensure that the most active ports are given priority in the survey. Therefore, we have decided to calculate an overall sample size based on an estimate of the total employment of crew in the region, and then we will select a proportionally-adjusted random sample of ports based on an indicator of commercial activity. The indicator for commercial activity we will use incorporates multiple different measures of fishing activity, including the value and pounds of landings and number commercial fishing permits and dealers. This new approach streamlines the sample selection method and improves the likelihood that we obtain a representative sample of crew involved in the most active commercial fisheries throughout the region.

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

SSB will develop both reports and tabulations based on the data collected under this survey. SSB will tabulate the responses from each survey question and provide cross-tabulations of survey questions when warranted. These tabulations will be provided on SSB’s web site.

In years following this data collection effort, SSB will perform statistical hypothesis tests to determine whether the underlying population values have changed over time. These tests will be standard Students *t* or *F*-statistic tests, depending on the data under consideration.

Further detailed analyses may also be performed on these data. This could include linear regression, analysis of variance, and other more complex statistical methods used to investigate trends and hypotheses in the data. The specific analyses to be performed will be based on the summary statistics that are tabulated and on the analytical needs (e.g., current policy questions needing information).

Table 4 provides a summary of the time line for completing the study, which will take place over a 12 month period to ensure that crew from different fisheries are selected as part of the sample.

Table 4. Data Collection, Analysis, and Reporting Timeline in Months.

Activity	1	2	3	4	5	6	7	8	9	10	11	12	13
Prepare logistics													
Perform Survey													
Clean and Analyze Data													
Prepare Reports and													

Tabulations													
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**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.**

Not applicable. The collection instrument will display the expiration date.

**18. Explain each exception to the certification statement.**

No exceptions are being requested.