SUPPORTING STATEMENT
SURVEY OF FISH PROCESSORS AND DISRUPTIONS CAUSED BY HURRICANE SANDY
OMB CONTROL NO. 0648-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 Fishery Product Report data (collected under OMB 0648-0018) will be used to construct the potential respondent universe. The Fishery Report data contains mailing and physical addresses. Respondents consist of all active fish processors and wholesalers which are located in the states of NJ, NY, CT, RI, MA, VT, NH, and ME which reported selling processed groundfish or scallops. As of 2011, there were 62 potential respondents that fit this criteria. The 2012 data are not available yet, but will be available before the survey begins and will be used to construct the potential respondent universe. Therefore, the number of respondents may change slightly when the updated data are available.

	Businesses (small businesses)
Groundfish Processors	43 (43)
Scallop Processors	5 (5)
Both	14 (14)
Total	62 (62)
Expected Response Rate	70% (70%) 43 respondents (43 small)

Sample Selection

A census is planned. Because the information being collected is voluntary, less than a 100% response rates is expected. Little information is known about the fish processing sector in the Northeast United States and this information collection has not been previously performed. Similar work has been conducted by Dirlam and Georgianna (1994) and Georgianna and Dirlam (2001). However, no response rates were computed. Georgianna and Shrader (2008) achieved

60% response rates for in-person interviews of scallop fishing vessels in which the potential respondents are difficult to interview because they are mobile. We expect a slightly higher response rate because fish processing firms have fixed addresses.

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.

We plan to conduct a census of the respondents. Therefore, there will be no stratification or sample selection. After the information collection, we can examine the characteristics of the respondents and non-respondents to detect and correct for any non-response bias during the analysis. For example, the Fishery Product Report data contains addresses, outputs, and employment figures. From this we can verify if our data is representative by both location (state, region) or size (based on inputs or outputs) and re-weight our data when conducting analyses if necessary.

One application of this data collection would be to compute the changes in employment or operational status immediately after Hurricane Sandy. Another application would be to verify and adapt, if necessary, the Regional Purchase Coefficients (RPCs) that are used in the input output modes l that assess impacts of fishery regulations on the regional economy (Steinback and Thunberg, 2006).

Unusual problems requiring specialized sampling procedures are not anticipated. The data collection will occur one time.

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.

We will use a multi-mode approach as described by Dillman *et al* (2009). We will make first contact by phone. If the phone number in the processed products report is not correct, we will make a mail contact. For respondents that choose to participate, we will follow-up with email or mail (as preferred by the respondent) that contains the discussion topics and appointment logistics. The data collection will be conducted by Dr. Dan Georgianna, who has been actively conducting research in this field and is well respected by fish processors in the region (Dirlam and Georgianna, 1994; Georgianna and Dirlam, 2001; Georgianna and Shrader, 2008).

While we would prefer to gather data on the value of fish products instead of the weight of those products, pre-testing and Dr. Georgianna's previous experience collecting similar data indicated that asking for value would be likely to reduce our response rate significantly. Therefore, the survey instrument will collect data on sales and purchases using weight, not value. It will be possible to estimate costs of raw materials using NMFS dealer data for domestically produced fish.

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.

The survey has been pre-tested by fewer than ten respondents. The proposed information collection will be conducted in-person by a single individual; one of the major advantages of this approach is that allows us to clarify the questions in a consistent way if there is any confusion.

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.

Min-Yang Lee, Ph.D. (508) 495-2026 and Tammy Murphy, Ph.D. (508) 495-2007 participated in the statistical aspects of the design.

The information will be collected by Dan Georgianna, Ph.D. (508) 910-6378. Dr. Georgianna has conducted extensive research in the field of fisheries economics, specifically focusing on fish processing firms (Dirlam and Georgianna, 1994; Georgianna and Dirlam, 2001; Georgianna and Shrader, 2008).

The information will be analyzed primarily by Georgianna and Lee.

References

Dillman, D.A and J.D.Smyth and L.M. Christian. 2009. Internet, Mail, and Mixed-mode Surveys: The Tailored Design Method. 3Rd Edition. Hoboken, NJ. John Wiley and Sons.

Dirlam, J. and D. Georgianna. 1994. Recent Adjustments in New England Fresh Groundfish Processing. *Marine Resource Economics*. 9: 375-384.

Georgianna, D and J. Dirlam. 2001. The Effect of Reduced Supply on Fish Processing in New England. *IIFET 2000 Proceedings*. Corvallis, OR.

Georgianna, D and D. Shrader. 2008. The Effects of Days at Sea on Employment, Income, and Hours of Work: Some Preliminary Evidence. *Human Ecology Review* 15(2): 185-193.

National Marine Fisheries Service. 2007. NMFS Strategic Plan for Fisheries Research. U.S. Department of Commerce. NOAA Technical Memo NMFS F/SPO-80. Silver Spring, MD. 170p.

Steinback SR, Thunberg EM. 2006. Northeast Regional Fishing Input-Output Model. NOAA Tech Memo NMFS-NE-188; 54 p. Availiable at http://www.nefsc.noaa.gov/publications/tm/tm188