SUPPORTING STATEMENT
COMMERCIAL FISHERIES SEAFOOD PROCESSING SURVEY
OMB CONTROL NO. 0648-0018

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.

The Survey of Fish Processors (OMB Control No. 0648-0018) sends NOAA Form 88-13 to federally licensed seafood processors. This add-on survey expands that frame to include more sources. In addition to the federally licensed seafood processors from the Survey of Fish Processors, participants in NOAA Fisheries' Seafood Inspection Program, state licensed dealers and processors compiled by the Atlantic Cooperative Coastal Cooperative Statistics Program, and those who applied for first receiver site licenses from the Pacific States Marine Fisheries Commission were combined to form the frame for this survey.

Under the original Survey of Fish Processors, there are 855 seafood processors. The number of entries in this proposed sample frame by each region is listed in Table 3. The entire population is 5,030 dealers or processors.

Table 3. Breakdown of sampling strategy by region

Column 1. Region	**Column 2. No. entries in sample frame (N)**	**Column 3. Observations required to estimate true population value (n see Eqn. 1)**	**Column 4. Sample size required under assumption of 60% response rate (Column C/60%)**	**Column 5. Sample size with 20% buffer (Column D*115%)**
Great Lakes*	14	14	14	14
Gulf of Mexico	680	197	328	394
Hawaii*	14	14	14	14
Mid-Atlantic	410	166	277	332
New England	676	197	328	394
Northwest	229	126	210	252
Southwest	930	214	357	428
South Atlantic	2,076	245	408	490
American Samoa*	1	1	1	1
Total	**5,030**	**1,174**	**1,937**	**2,319**

*All of the respondents in these strata will be surveyed due to low numbers.

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.

A stratified random sample of the frame will be used to draw the sample population. Note that each region is represented within each *l* strata. This collection is a one-time data collection.

Following Equation 1 (Yamane 1967) approximately 2,319 observations are required to represent the true value for each region, assuming a +/- 6% precision rate,

$$n = \frac{N}{1 + N(e)^2}$$

Equation 1.

$$245 = \frac{2,076}{1 + 2,076(0.06)^2}$$

Equation 1, Example South Atlantic.

where *n* is the sample size, *N* is the population size, and *e* is the level of precision required. The equation assumes a confidence interval of 95% and maximum variability in the sample (.50). An observation unit is an individual respondent.

The number of observations required to estimate the true population estimate (n) is calculated for each stratum, *l* (column 3 in Table 1). In previous years, the Survey of Fishery Processors has achieved a 60% response rate; therefore, we assume a 60% response rate for this survey (column 4 in Table 1), and funds will be available to provide a 20% sampling buffer, resulting in a combined sample of 2,319 (column 5 in Table 1).

The sample includes those in the Survey of Fish Processors, plus state licensed dealers and processors from Atlantic Cooperative Coastal Cooperative Statistics Program, those who applied for first receiver site licenses from the Pacific States Marine Fisheries Commission and participants in NOAA's Seafood Inspection Program.

Regional port agents will send the survey to those respondents included in the Survey of Fish Processors (OMB Control No. 0648-0018). Regional port agents work closely with national, regional and state industry trade associations. Port agents often hold discussions with industry leaders to describe the necessity of their members to provide the information. The Survey of Fish Processors has been conducted for the past 20 years and port agents may have personal relationships with the processors. The port agents will follow-up with phone calls to encourage responses. A second survey mailing will be sent to all respondents who have not completed and returned their survey within the first three months of the initial mailing in early December. A second mailing to those who have not yet responded is conducted in late February. Port agents will conduct follow-up phone calls within two weeks of this mailing to determine if problems have arisen. This follows the usual protocol for the Survey of Fish Processors.

For those respondents *not* included in the Survey of Fishery Processors (OMB Control No. 0648-0018), the information collection will follow a modified Dillman Approach (Dillman 2000):

- Each respondent will receive a pre-notice letter informing the potential respondent of the

survey effort, purpose, and forthcoming survey instrument.

- Approximately 9 days after the pre-notice, a survey instrument and cover letter will be mailed to all sampling units.
- A reminder postcard will be sent to all respondents one month after the survey mailing.
- A second survey mailing will be sent to all respondents who have not completed and returned their survey within two weeks of the reminder postcard.

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.

Approximately 50 percent of the survey forms are returned within the first three months of the initial mailing for the Survey of Fishery Processors; we expect the same results for the additional respondents. For those respondents in the Survey of Fish Processors, a second survey mailing will be sent to all respondents who have not completed and returned their survey within the first three months of the initial mailing in early December. A second mailing to those who have not yet responded is conducted in late February. Port agents will conduct follow-up phone calls within two weeks of this mailing to determine if problems have arisen.

The mail survey implementation will follow state-of-the-art protocols described in 'The Tailored Design Method' (Dillman 2000). Protocols include four mailings with approximately 2 – 4 weeks between mailings: (1) a pre-notice letter informing the respondent that they have been selected to receive a survey within the next two weeks; (2) a cover letter describing the importance of filling out the survey completely and the survey questionnaire; (3) a post-card follow up thanking respondents who returned their survey and reminding respondents to complete their survey and return it if they have not already done so; (4) a final mailing including a cover letter and survey instrument. The Tailored Design Method is designed to maximize response rates, and components of the design have been scientifically tested and determined to increase response rates for mail surveys (Dillman 2000).

A small random sample of non-respondents will be contacted by telephone to determine the extent, if any, of non-response bias.

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 of Fishery Processors has been conducted in the same manner for 20 years. No tests have been conducted recently. The add-on questions were based on an annual survey conducted on the U.S. West Coast under OMB Control No. 0648-0618 since 2009.

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.

Regional agency personnel and port agents conduct the census of fishery processors. The main NOAA Fisheries regional contacts are:

Northeast Region – Victor Vecchio 631-324-3569
Southeast Region – Lawrence Beerkircher 305-361-4290, ext 290
Gulf Region – Pamela Brown-Eyo 305-361-4565, ext 565
Southwest Region – Craig D'Angelo 562-980-4024
Northwest Region – Hollye Maxwell (Pacific States Marine Fisheries Commission) 503-595-3100
Pacific Islands – Walter Ikehara 808-944-2275

Sampling Design, Data Analysis and Report Writing:
Ayeisha Brinson 301-427-8198

References

Dillman, D. 2000. Mail and Internet Surveys. The Tailored Design Method. John Wiley and Sons, Inc., New York, New York.

Rice, J. 1995. Mathematical Statistics and Data Analysis, Second Edition. Wadsworth Publishing Company, Belmont, California.

Yamane, Taro. 1967. Statistics, An Introductory Analysis, 2nd Ed., New York: Harper and Row.