

Supporting Statement B for Paperwork Reduction Act Submissions

Social Indicators in Coastal Alaska: Arctic Communities OMB Control Number 1010-NEW Current Expiration Date: None

B. Collection of Information Employing Statistical Methods

The agency should be prepared to justify its decision not to use statistical methods in any case where such methods might reduce burden or improve accuracy of results. When statistical methods are employed, the following documentation should be included in the Supporting Statement to the extent that it applies to the methods proposed.

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 government units, households, or persons) in the universe covered by the collection and in the corresponding sample are to be provided in tabular form for the universe as a whole and for each of the strata in the proposed sample. Indicate expected response rates for the collection as a whole. If the collection had been conducted previously, include the actual response rate achieved during the last collection.

The 2003 SLiCA survey (Kruse et al., 2009) achieved an 84 percent response rate in Alaska. The same field design will be applied in this survey. While we expect to achieve a comparable response rate, we conservatively assumed an 80 percent response rate in estimating sampling errors. A two-stage sample design will be used in Barrow. Households will have a probability of selection of 0.33. Differences in household size will be taken into account with the calculation of individual weights equal to the inverse of the probability of selection as the adult respondent within each selected household.

Community	Estimated Adult Population	Maximum Number of Households/ Respondents	Estimated Number of Completed Interviews	Standard Error	Maximum Estimated Sampling Error
Barrow	3,065	422*	338	0.03	0.04
Point Hope	388	186	149	0.04	0.07
Wainwright	349	147	118	0.05	0.08
Nuiqsut	235	114	91	0.05	0.09
Kaktovik	154	72	58	0.07	0.11
Point Lay	102	60	48	0.07	0.12
Total	4,293	1,001	801	0.02	0.03

*Sampling fraction of 0.33 will be used at the household level in Barrow

2. Describe the procedures for the collection of information including:

- (a) Statistical methodology for stratification and sample selection.**
- (b) Estimation procedure.**
- (c) Degree of accuracy needed for the purpose described in the justification.**
- (d) Unusual problems requiring specialized sampling procedures.**

(e) Any use of periodic (less frequent than annual) data collection cycles to reduce burden.

Sample frames for each community will be constructed in collaboration with local authorities. It will not be necessary to use stratified sampling in Barrow in order to separately report Iñupiat and non-Iñupiat results as the population distribution is about equal (57%). But steps may be necessary in reporting results for Iñupiat and non-Iñupiat separately for the other five villages in order to protect the anonymity of individual respondents. These steps may include reporting by ethnic group only for villages as a group or aggregating results.

3. Describe methods to maximize response rates and to deal with issues of non-response. The accuracy and reliability of information collected must be shown to be adequate for intended uses. For collections based on sampling, a special justification must be provided for any collection that will not yield “reliable” data that can be generalized to the universe studied.

With 35 years of experience as researchers working on the North Slope of Alaska, Braund and Kruse have concluded that the most important factor in determining the response rate in these small communities is the active engagement of community residents in all phases of the research, including questionnaire design, fieldwork, review of results, and review of write-ups prior to publication. In recognition of this fact, the research team worked to establish the North Slope Management Board (NSMB) with representatives from all six communities and representatives of key regional organizations. Upon OMB approval, the team will work with the NSMB to extend community involvement to the city councils, tribal governments, and village corporations. The project website will keep residents informed about the study and provide an easy access to study team members and the NSMB. The study team will visit communities to discuss the survey prior to fieldwork if asked to do so, and will only conduct fieldwork in communities wanting to participate. Since the probability of being selected to participate in a research project is relatively high among North Slope residents (i.e., the number of research projects is large and the population is small), the honorarium of \$50 will help to offset cumulative response burden and sustain a good response rate over time. Following an NSMB review of preliminary results, the team will visit each community to hold a public meeting to present and discuss the results. A report oriented to residents will be readily available on the project website. Forty-four percent of North Slope households had a connection to the Internet in 2003, and there are public Internet sites in each community as well.

With few exceptions, the proposed questions have been administered in prior surveys to the same population. The assessment process during question selection for the proposed survey included an examination of non-response in the 2003 Survey of Living Conditions in the Arctic. Non-response rates for non-sensitive questions (e.g. C1h) were less than one percent in the 2003 survey. Non-response rates for sensitive questions (e.g. A32, D7) were higher (in the two examples two percent and ten percent respectively). No questions were recommended with non-response rates above ten percent.

Non-response rates to individual questions will be examined in preparation for analysis. Questions with non-response rates above ten percent will be identified for further analysis. Interviewers are instructed to write down the respondent’s comments verbatim during the interview. At the beginning of the interview the interviewer instructs the respondent to just say “pass” when they do not want to answer a question. The verbatim comments often provide insights on why a respondent declined to answer a question.

Questions with non-response rates of over ten percent will also be examined by respondent characteristics including gender, age, education, and socio-economic status. Questions that either comments or analysis indicate may be invalid or subject to non-response bias will be brought to the

attention of the NSMB. The board will decide whether results for these questions should be reported with potential threats to validity noted or that the results for these questions should not be reported at all.

4. Describe any tests of procedures or methods to be undertaken. Testing is encouraged as an effective means of refining collections of information to minimize burden and improve utility. Tests must be approved if they call for answers to identical questions from 10 or more respondents. A proposed test or set of tests may be submitted for approval separately or in combination with the main collection of information.

The study team conducted a pre-test of the instrument with nine North Slope respondents. The purpose of this informal testing was to provide the study team with an opportunity to test the flow of the questions in the survey instrument and detect unforeseen problems. The pre-test resulted in a number of changes to the content and formatting of the survey instrument, which are expected to improve the flow of the interviews and assist with respondent comprehension of survey questions.

5. Provide the name and telephone number of individuals consulted on 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.

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References

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