

North Slope Social Indicator Study

North Slope Management Board Meeting on
Selection of Social Indicators: April 4-5, 2012

Quick Facts

- Contracted by the federal Bureau of Ocean Energy Management (BOEM)
- Conducted by Stephen R. Braund & Associates
- Survey to monitor the well-being of residents of Barrow, Nuiqsut, Wainwright, Point Hope, Point Lay, and Kaktovik
- Purpose: identify impacts of offshore oil and gas exploration and development and mitigate impacts
- Local decision on survey content: North Slope Management Board
- Builds on research starting in 1977 including the international Survey of Living Conditions in the Arctic (SLiCA) in 2003

Previous North Slope Social Indicator Studies

- 1977 North Slope Survey: a collaboration of the North Slope Borough and the University of Alaska
- 1988 and other years: North Slope Borough census questionnaires continued some 1977 survey questions
- 2003 Survey of Living Conditions in the Arctic: a collaboration of the ICC, UIC, University of Alaska
- 2007 North Slope Social Impact Study for the NSB by Stephen R. Braund & Associates

Outcomes of previous surveys

- Documented persistence of subsistence as an important component of well-being (1977, 1988, 2003, 2007)
 - An example:
 - 1988 International Whaling Commission technical meeting, Auckland, New Zealand
 - Braund and Kruse refuted the assertion that Iñupiat need for Bowhead would decrease over time as a result of increased cash employment. They based their response on the social indicator finding that hunters with increased incomes chose to hunt as a preferred part of their lifestyle.

Outcomes of previous surveys

- Subsistence opportunities in North Slope communities have compared favorably with opportunities elsewhere in the Arctic (SLiCA 2003)

Satisfaction with Amount of Fish and Game Available Locally: 2003					
	North Slope	Northwest Arctic	Bering Straits	Greenland	Chukotka
Very satisfied	48%	58%	24%	9%	5%
Somewhat satisfied	39%	33%	36%	54%	34%
Not satisfied or neither	13%	9%	40%	37%	71%
	100%	100%	100%	100%	100%

Outcomes of previous studies

- Between 2003 and 2007 there was a marked decline in several social indicators related to subsistence and an increase in the job opportunity indicator (SLiCA 2003, NSSIS 2007)

Percentage of Residents in Nuiqsut, Barrow, Atqasuk, and Wainwright Satisfied or Very Satisfied with Selected Living Conditions				
	Adult Iñupiat 2003	Active Hunters 2003	Active Hunters 2007	Change in percentage points from 2003 to 2007
Influence of Iñupiat over management of natural resources like fish and game	87%	88%	72%	-16%
Influence of Inupiat over management of natural resources like oil, gas, and minerals	66%	63%	54%	-9%
Opportunities to Hunt and Fish	91%	94%	88%	-6%
Amount of fish and game available locally	90%	98%	80%	-18%
Job opportunities in the community	43%	35%	60%	25%

Reasons for continued monitoring of well-being

- There are many forces for change potentially affecting well-being: onshore and offshore exploration and development, climate change, changes in government spending, local economic development, among many others
- Continued monitoring of well-being can measure impacts and justify mitigation actions
- Continued monitoring of well-being can measure benefits

How the study is organized

- Form a North Slope Management Board composed of North Slope residents
- The research team will bring to the Board recommendations of social indicators selected from previous surveys at a meeting in Barrow April 4-5
- Based on the Board's approval, the research team will submit a questionnaire to the federal Office of Management and Budget for approval in June 2012
- With OMB approval, the survey could be conducted as early as January 2013
- The Board will meet a second time in 2013 to review initial results to ensure that all indicators are valid

Research Team Leaders

- Steve Braund – currently directing the Comida study of offshore subsistence hunting, the BOEM Nuiqsut mitigation study, the Conoco-Philips Nuiqsut Caribou Monitoring Study. Steve also directed the North Slope Subsistence Mapping Study, Subsistence Harvest Surveys in Wainwright and Barrow, and has worked on behalf of the AEWC to support the IWC Whaling Quota. Contact: srba@alaska.net
- Jack Kruse – directed the 1977 North Slope Survey and the 2003 SLiCA survey. He assisted in the 2007 North Slope Social Impact Study. Jack is a retired faculty member of the University of Alaska Institute of Social and Economic Research. Contact: Jack.Kruse@arctichost.net

Process Used to Come Up With Recommended Social Indicators

Indicator Recommendation Process

- BOEM contract domains
- Literature review on domains
- Research Plan: build on SLiCA, 1977 NSB Survey, ASI
- BOEM indicator evaluation criteria
- Literature review on evaluation criteria
- Apply criteria to SLiCA indicators
- Bring recommendations to NSMB

Evaluation Criteria, part 1

Understandable as Important	5	Highest	Among most important Inupiat values
	4	High	Among important universal human values
	3	Medium	Probably an indirect measure of important value
	1	Low	Not understandable as important
Available for Past and Reasonably Forseeable Future	5	Highest	Available from 1977 NSB Survey
	4	High	Available from SLiCA or Harvest Surveys
	3	Medium	Available from Census
	1	Low	Not available for past nor from reasonably forseeable future
Measure of Output of Social System	5	High	Clearly a social outcome important to individuals
	3	Medium	Probably an indirect measure of individual well-being
	1	Low	Cannot be assumed to indicate well-being at the individual level

Evaluation Criteria, part 2

Meaningful at the Household Level	5	High	Meaningful at the individual level as well as household level
	3	Medium	Meaningful at the community level
	1	Low	Not meaningful below the regional level
Sensitive to Variations Between People and Over Time	5	Highest	Demonstrated variability between people and over time
	3	Medium	Based on pretests likely to be sensitive to variations between people and over time
	1	Low	Unlikely to be sensitive to variations between people and/or over time
Reflects Concern with a High Degree of Precision	5	Highest	Based on multiple solid count measures of respondent's own experience
	4	High	Based on solid count measure of respondent's own experience
	3	Medium	Based on ordinal measure of respondent's own experience
	2	Low	Based on respondent's perception of other household member experience
	1	Lowest	Based on respondent's perception of community-level condition

Evaluation Criteria, part 3

Available at a Reasonable Cost (reasonable response burden)	5	Highest	Based on single, easy to answer item
	4	High	Based on simple set of questions answerable in less than 5 minutes
	3	Medium	Based on extended set of questions answerable in 5 - 10 minutes
	1	Low	Based on extensive set of questions answerable in more than 10 minutes
Available Reporting for Alaska Natives	5	Highest	Yes, including prior data
	3	Medium	Yes, no prior data
	1	Low	No
Available at the Village Level	5	Highest	Yes, and considered an accurate representation of community resident well-being
	3	Medium	Yes, but of questionable accuracy
	1	Low	Not available at the village level
Available at Least Every Five Years	5	Highest	Available at intervals of five years or less
	3	Medium	Available as often as survey conducted
	1	Low	Not available at intervals of five years or less

Evaluation Criteria, part 4

Levels and Distributions	5	Highest	Available as percentage distributions and means
	3	Medium	Available as distributions
	1	Low	Available as means only
Linked Data	5	Highest	Linked survey data with comparable prior linked data
	4	High	Linked survey data
	1	Low	Unlinked data
Overall Assessment	5	Recommend	High or highest on most values including output measure and availability of levels and distributions; no values below medium
	4	Recommend with reservations	Doesn't meet recommend criteria but 1977 comparable data

Recommendation Materials

- Domains
- List of indicators by domain
- SLiCA results for each indicator in 2003
- Questionnaire containing all measures used to construct indicators
- Spreadsheet showing evaluations of each potential indicator
- SLiCA questionnaire
- 1977 North Slope Questionnaire

Domains

- Cultural Continuity
- Economic Well-being
- Education
- Local Control
- Health
- Physical Environment
- Global Indicators

Cultural Continuity Indicators

- Number of subsistence activities pursued in past 12 months
- Number of traditional skills learned as a child
- Ability to understand, speak, read, and write Iñupiaq
- Index of importance of cultural values
- Index of satisfaction with community promotion of cultural values
- Preference for type of work: subsistence, job, or both (with reservations)

Economic Well-being Indicators

- Number of subsistence activities pursued in past 12 months (see above)
 - Pounds of traditional food harvested for top ten species harvested by community
 - Weeks worked in past 12 months
 - Total personal income in past 12 months
 - Household income by major source (wages, self-employment, arts & crafts, transfers)
 - Index of satisfaction with economic well-being items
 - Ability of household to make ends meet
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- Respondent work summary (with reservations)
 - Proportion of meat and fish consumed that is traditional food (with reservations)
 - Proportion of meat and fish consumed that is harvested by household (with reservations)
 - Received traditional food (with reservations)
 - House problem index (with reservations)
 - House feature index (with reservations)

Education Indicators

- Number of traditional skills learned as a child (see above)
- Highest level of school completed
- Satisfaction with education and training received
- Satisfaction with education services

Local Control Indicators

- Count of votes placed in local, regional, state, and national elections
- Satisfaction with influence Iñupiat have on management of natural resources like oil, gas, and minerals
- Satisfaction with influence Iñupiat have on management of natural resources like fish and caribou
- Satisfaction with influence Iñupiat have to reduce environmental problems in your area
- Index of political motivation (with reservations)

Health Indicators

- Self-reported health
- Satisfaction with your health
- Satisfaction with health services
- Victimization summary
- Depression index
- Social support index
- Problems related to alcohol or drugs in your home today (with reservations)

Physical Environment Indicators

- Number of subsistence activities pursued in the past 12 months (see above)
- Number of outdoor activities pursued in the past 12 months
- Satisfaction with amount of fish and game available locally
- Local environmental problem index
- Satisfaction with the health of the environment in your area
- Pounds of traditional food harvested for top ten species harvested by community (see above)
- Proportion of meat and fish consumed that is traditional food (with reservations, see above)
- Proportion of meat and fish consumed that is harvested by household (with reservations, see above)

Global Indicators

- Satisfaction with life in this community
- Satisfaction with life as a whole
- Considered moving from community (with reservations)