

**STUDY TITLE:** Evaluation of Social Indicators (TR-116).

**REPORT TITLE:** A Social Indicators System for OCS Impact Monitoring.

**CONTRACT NUMBER(S):** MMS: 14-12-0001-30179; Technical Report No. 116.

**SPONSORING OCS REGION:** Alaska.

**APPLICABLE PLANNING AREA(S):** Gulf of Alaska; Kodiak; Cook Inlet; Shumagin; Aleutian Arc; North Aleutian Basin; St. George Basin; St. Matthew Hall; Bowers Basin; Aleutian Basin; Navarin Basin; Norton Basin; Hope Basin; Chukchi Sea; Beaufort Sea.

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**KEY WORDS:** Gulf of Alaska; Kodiak; Cook Inlet; Shumagin; Aleutian Arc; North Aleutian Basin; St. George Basin; St. Matthew Hall; Bowers Basin; Aleutian Basin; Navarin Basin; Norton Basin; Hope Basin; Chukchi Sea; Beaufort Sea; cultural impacts; socioeconomics; social indicators; human population; Yupik; Inupiat; development; impacts; leasing.

**BACKGROUND:** Section 256.82 of Title 30 in the Code of Federal Regulations requires that the Minerals Management Service (MMS) conduct studies in lease areas to establish information needed to assess and manage effects by Outer Continental Shelf (OCS) oil and gas development. Impacts include effects on human, marine, and coastal environments. This report describes the design of a data collection system to monitor changes in individual well-being of Alaska residents. The system is designed to contribute to pre-lease assessment to fulfill the responsibilities of the MMS to monitor development effects.

**OBJECTIVES:** (1) To design a data collection system to monitor changes in the individual well-being of Alaska residents who may be affected by OCS development activities.

**DESCRIPTION:** The report begins with a review of concepts and past applications in the field of social indicators research. Social indicator systems are usually organized around major social concerns or social goals. The system developed, the Alaska OCS Social Indicator System (AOSIS), is organized around social goals (actually goal families, goals, and subgoals) in each region. Goals were identified and field tested for validity. Criteria used to construct AOSIS social indicators (i.e., quantitative measures) of each subgoal (the smallest goal unit described) are described. Potential indicators based on existing data are identified and assessed and a final set of AOSIS indicators are described. The necessary steps to implement AOSIS are described. An extensively tested questionnaire is the principal data collection instrument in AOSIS. The steps necessary to implement the survey component of AOSIS are described as follows: (1) identification of specific target populations; (2) generation of village-specific lists of hunting and fishing activities; (3) preparation of Yupik and Inupiat translations of the questionnaire; (4) development of interviewer instructions; (5) construction of required sample forms; and

(6) collection of key informant and secondary data. Finally, the use of AOSIS to identify effects of OCS activities and contribution to pre-lease discussions is described.

**SIGNIFICANT CONCLUSIONS:** This report describes the development and design of AOSIS, a data collection system used to measure human well-being in Alaska's rural coastal environment. The purpose of such information is to establish a valid and reliable basis for projecting and monitoring the effect of OCS petroleum development on the well-being of Alaska residents.

**STUDY RESULTS:** The first stage of the design effort consisted of a preliminary identification of social goals recognized by Alaska's rural coastal residents. These goals included universally recognized concerns such as housing, health, and income as well as regionally and culturally specific social goals. These initially identified goals were then field tested through key informant interviews and a comparison of goals with current issues. The goals were modified on the basis of field test results and used as a framework for identification of indicators of individual well-being. Individual social indicators of well-being were developed according to explicit rules. At least one indicator had to be included for each of the most detailed goals identified (subgoals). The meaning of each indicator had to correspond with the meaning of one, and only one subgoal. All indicators had to directly measure individual well-being and must accurately reflect reality and actual change. Researchers sought to develop both objective and subjective indicators for each subgoal. Existing data sources were reviewed for potential indicators. Researchers found that existing data sources are inadequate as the sole basis for a social indicators system. Therefore, indicators based on primary data were developed, repeatedly tested and modified, and incorporated into a single questionnaire. The steps necessary to implement AOSIS are described. Data collection efforts are scheduled to coincide with the current leasing schedule. Key sub-populations are identified as targets for primary data collection. Methods are discussed for inclusion of AOSIS in pre-lease assessments and in studies of the actual effects of OCS development activities on individual well-being.

**STUDY PRODUCT(S):** Stephen R. Braund & Associates, J. Kruse, and F. Andrews. 1985. A Social Indicators System for OCS Impact Monitoring. A final report for the U.S. Department of the Interior, Minerals Management Service Alaska OCS Region, Anchorage, AK. Social and Economic Studies Program Technical Report No. 116. Contract No. 14-12-0001-30179. 226 pp.

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