

STUDY TITLE Social Indicators Study of Alaskan Coastal Villages

REPORT TITLE: Social Indicators Study of Alaskan Coastal Villages 111. Analysis

CONTRACT NUMBER: 14-12-0001-30300. Technical Report No. 154

SPONSORING OCS REGION: Alaska

APPLICABLE PLANNING AREAS: Beaufort Sea, Chukchi Sea, Bering Strait, Bering Sea, Norton Sound, Bristol Bay, North Aleutian Basin, Kodiak.

FISCAL YEARS OF PROJECT FUNDING: FY 1986- FY 1993 (inclusive)

COSTS: FY 1986\$399,766 FY 1987\$194.243 FY 1988\$263,600 **FY1989** \$200,176
FY1990 \$77,854 **FY1991** \$486

PROJECT MANAGER: Joseph G. Jorgensen

AFFILIATION: School of Social Sciences, University of California, Irvine, California;
Human Relations Area Files, Inc., New Haven, Connecticut

ADDRESS: Program in Comparative Culture, School of Social Sciences, 579 SST,
University of California, Irvine, California 92717; Human Relations Area Files, P. O. Box
2054, Yale Station, New Haven, Connecticut, 06520

PRINCIPAL INVESTIGATOR: Joseph G. Jorgensen

KEY WORDS: Alakanuk, Anaktuvuk, Aniak, Atka, Barrow, Bethel, Buckland, Deering,
Dillingham, Gambell, Kaktovik, Kivalina, Kodiak, Kotzebue, Manokotak, Naknek, Nome,
Nikolski, Nuiqsut, Nunapitchuk, Old Harbor, Point Hope, St. Paul, Sand Point, Scammon
Bay, Shishmaref, Togiak, Toksook Bay, Unalakleet, Unalaska, Wainwright

BACKGROUND: The social indicators study was conducted over 4 years among 31 villages in coastal Alaska from Kodiak on the south to Kaktovik on the north as part of the Mineral Management Service's research program aimed at assessing potential human and social impacts of oil-related development throughout coastal regions in which the harvests of naturally occurring resources of the land and sea are central to commercial activity as well as to subsistence life styles. This report is the third of three required by the original contract. In it the data which proved to be reliable, stationary, and devoid of testing artifacts, statistical regression, and history, are analyzed.

OBJECTIVES: The social indicators project is charged with developing two social indicator systems sensitive to the consequences of OCS activities for persons, their households, their village social, economic, and **political** organizations, and the environments in which they gain their livelihoods. Each system is to be based on a separate methodology and a separate data **set**: one on a questionnaire instrument, the other on a protocol. The Minerals Management Service requested that in the development of these systems, special attention be paid to distinguishing differences among ANCSA regions, between Native and non-Native residents, between villages which possessed well developed infrastructures and superstructures and those that did not, and between Outer Continental Shelf oil-related activities that may effect village organizations and life within villages and other economic factors which may effect village organizations and life within villages as well. It is anticipated that the social indicators systems **periodically** will be used to monitor the social conditions of Alaska's rural communities.

DESCRIPTION: This volume focuses on the analysis of two social indicator systems developed in *Social Indicators Study II. Research Methodology*, the second product of this study. Two indicator systems are developed, one based on the AOSIS Questionnaire Instrument (AQI), and the other based on the Key Informant Protocol (KIP). The effects of external events, such as the international plunge in oil prices and the national economic recession, and internal events, such as the loss of employment and local political activities, are analyzed with the social indicator systems. Change as well as stability in Alaskan Coastal villages are analyzed through the two sets of indicators. Two major topics are addressed with each indicator system: (1) traditional activities and customs which measures the relations among indicators of traditional and Western (modern) customs and the ways in which those indicators respond--individually and in multivariate relations--to internal and external factors over time; and (2) the Western model of economic development which measures the responses of indicators of economic, social, and political development to external and internal changes in the public and private sector economies.

SIGNIFICANT CONCLUSIONS: Differences between Natives and non-Natives in coastal Alaskan villages are demonstrated to be significant and systematic in the amounts of income invested into the harvests of wild resources, the variety and amount of wild resources that are harvested, the manner in which those resources are distributed and consumed, the amounts in which goods, equipment, and income are shared and the persons with whom they are shared, the practices of contributing labor to relatives and friends, the way in which symbols are attached to the environment, the places to which persons retire, the consequences of job or business loss, the expectations for local benefits from oil-related developments, the sizes and compositions of households, rules for membership and behavior in the household, cognitive attitudes about whether and what species can be managed, who or what agency should manage them, who best understands the biologic and abiotic environments, and what consequences are most likely from oil-related activities. The factors which affect each of these topics (several of the aforementioned topics are represented by more than one indicator) are analyzed longitudinally--within research waves and between research waves over three points in time--by our multi-data set, multidimensional (two or

three dimensions), **multivariate analysis**.

STUDY RESULTS: The AQI and KIP indicator systems prove to be most powerful in the analysis of a wide variety of economic, subsistence economic, social, political, and religious items when contrasting Native and non-Native respondents. Race/ethnicity accounts for more variation than does any of the village contrasts, including those between residents of villages that are composed of 75 percent or more Natives and villages that are composed of more than 25 percent non-Natives, large, complex villages with well-developed infrastructures and public and private sector economies and residents of small, simple villages with weakly developed infrastructures and public and private sector economies, between residents of villages that have experienced or are expected to experience oil-related developments and villages that have not and will not, and between residents of commercial fishing villages and residents of non-commercial fishing villages. The multivariate analyses of the KIP and AQI data sets reveal the items that change under various conditions, and the probable causes of those changes.

STUDY PRODUCTS: Brelsford, T., A. **Fienup-Riordan**, J. Jorgensen, S. McNabb, P. **Petrivelli**, and L. Robbins. 1992. Social Indicators Study of Alaskan Coastal Villages I. Key Informant Summaries. Volume 1: Schedule A Regions. Prepared by Human Relations Area Files for the U. S. Department of the Interior, Minerals Management Service Alaska OCS Region, Anchorage, Alaska. **Technical Report No. 151**. MMS Report Number 92-0031. Contract 14-12-0001-30300.

Endter-Wada, J., J. Hofmeister, R. Mason, S. McNabb, and J. **Mulcahy**. 1992. Social Indicators Study of Alaskan Coastal Villages 1. Key Informant Summaries. Volume 2: Schedule B Regions. Prepared by Human Relations Area Files for the U. S. Department of the Interior, Minerals Management Service Alaska OCS Region, Anchorage, Alaska. **Technical Report No. 151**. MMS Report Number 92-0031. Contract 14-12-0001-30300.

Jorgensen, J and S. **McNabb**. 1993. Social Indicators Study of Alaskan Coastal Villages II. Research Methodology: Design, Sampling, Reliability and Validity. Prepared by Human Relations Area Files for the U. S. Department of the Interior, Minerals Management Service Alaska OCS Region, Anchorage, Alaska. **Technical Report No. 153**. MMS Report Number 93-0035. Contract 14-12-0001-30300.

Jorgensen, J. and S. **McNabb**. 1993. Social Indicators Study of Alaskan Coastal Villages 111. Analysis. Prepared by Human Relations Area Files for the U. S. Department of the Interior, Minerals Management Service Alaska OCS Region, Anchorage, Alaska. **Technical Report No. 154**. MMS Report Number 93-0070. Contract 14-12-0001-30300.