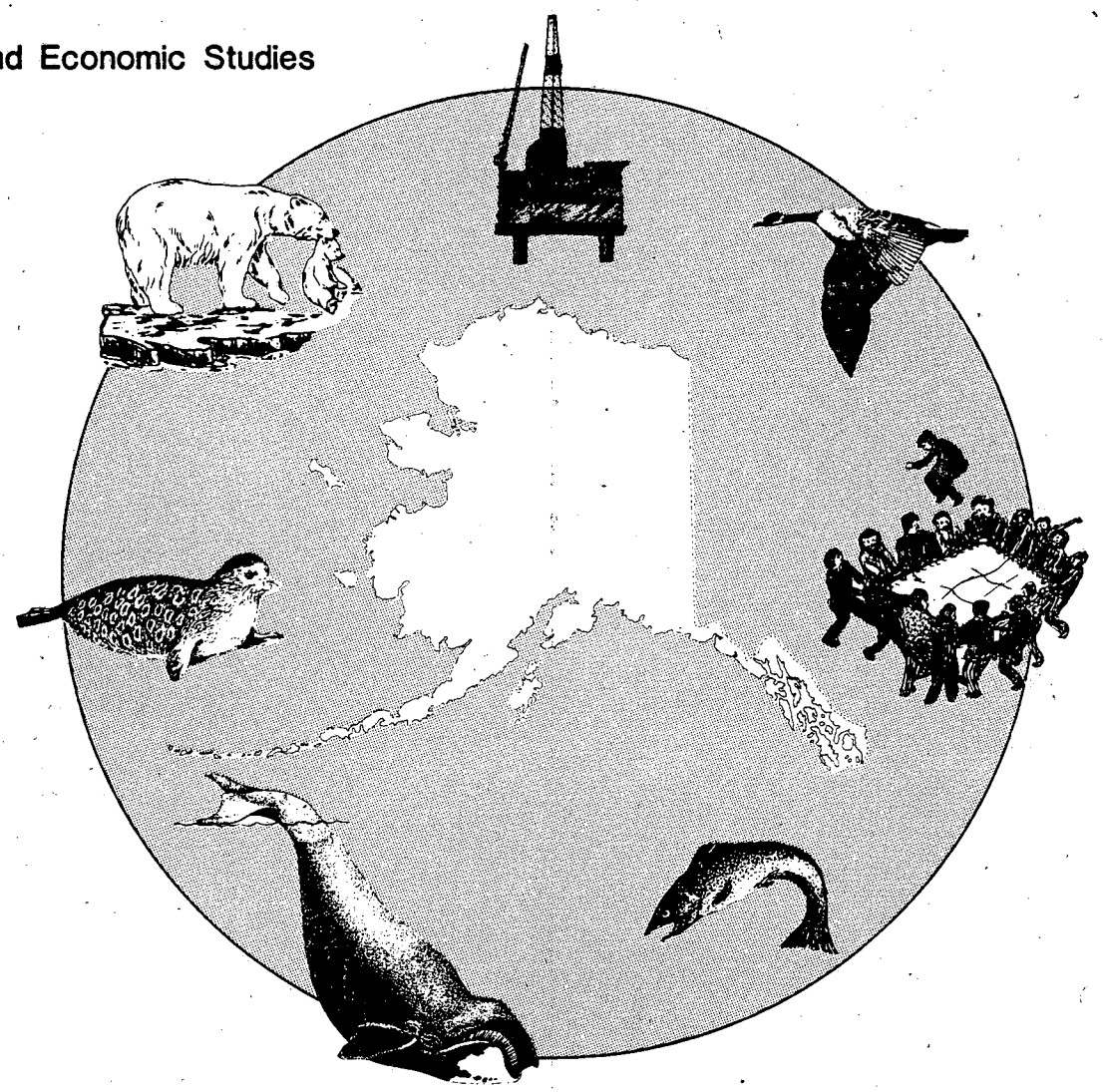
OCS Study
MMS 92-0031

Social Indicators Study of Alaskan Coastal Villages

I. Key Informant Summaries

Volume 1: Schedule A Regions (North Slope, NANA, Calista, Aleutian-Pribilof)

Social and Economic Studies



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I. Key Informant Summaries

Volume 1: Schedule A Regions
(North Slope, NANA, Calista, Aleutian-Pribilof)

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Human Relations Area Files

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Alaska OCS Environmental Studies Program

Social Indicators Study of Alaskan Coastal Villages
I. Key Informant Summaries. Volume 1: Schedule A Regions

Human Relations Area Files
New Haven, Connecticut

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Acronyms

AANHS	Alaska Area Native Health Service
ABE	Adult Basic Education
ACES	Alaska Community Engineering Services
ADCRA	Alaska Department of Community and Regional Affairs
ADF&G	Alaska Department of Fish and Game
ADH&SS	Alaska Department of Health and Social Services
ADOC	Alaska Department of Corrections
ADOT&PF	Alaska Department of Transportation and Public Facilities
ADOL	Alaska Department of Labor
AEWC	Alaska Eskimo Whaling Commission
AFN	Alaska Federation of Natives
AMSA's	Areas Meriting Special Attention
ANA	Administration for Native Americans
ANCSA	Alaska Native Claim Settlement Act
ANILCA	Alaska National Interest Lands Conservation Act
ANWR	Alaska National Wildlife Refuge
AOSIS	Alaska Outer Continental Shelf Social Indicators Study
ASHA	Alaska State Housing Authority
ASRC	Arctic Slope Regional Corporation
AVCP	Association of Village Council Presidents
AWIC	Arctic Women in Crisis
BBAHC	Bristol Bay Area Health Corporation
BBHA	Bristol Bay Housing Authority
BBNA	Bristol Bay Native Association
BBNC	Bristol Bay Native Corporation
BIA	Bureau of Indian Affairs
BLM	Bureau of Land Management
BSNA	Bering Straits Native Association
BSNC	Bering Straits Native Corporation
BSSD	Bering Strait School District
BVNC	Bethel Village Native Corporation
ca.	circa
CETA	Comprehensive Employment and Training Act
CHA	Community Health Aide
CIP	Capital Improvements Program
CIRT	Crisis Intervention Response Team
CMC	Coastal Management Corporation
CPI	Consumer Price Index
CRSA	Coastal Resource Service Area

DOL	U.S. Department of Labor
DWI	driving while intoxicated
EDA	Economic Development Administration
EIS	Environmental Impact Statement
EMS	Emergency Medical Services
F.I.R.E.	Finance, Insurance, and Real Estate
FAA	Federal Aviation Administration
FCZ	Fisheries Conservation Zone
FTE	Full-time equivalent
FWS	U.S. Fish and Wildlife Service
FY	Fiscal Year
HESS	Health, Education, and Social Services (Task Force)
HS	High School
HUD	Housing and Urban Development (U.S.)
ICAS	Inupiat Community of the Arctic Slope
ICWA	Indian Child Welfare Act
IHS	Indian Health Service
IRA	Indian Reorganization Act
ISER	Institute of Social and Economic Research
KANA	Kodiak Area Native Association
KCA	Kodiak Council on Alcoholism
KCC	Kuskokwim Community College
KDC	Kikiktagruk Development Corporation
KI	Key Informant
KIC	Kikiktagruk Inupiat Corporation
KTC	Kodiak Tribal Council
KVSN	Kodiak Village Services Network
MMS	Minerals Management Service
NAB	Northwest Arctic Borough
NANA	Northwest Alaska Native Association Corporation
NOL's	Net Operating Losses
NSB	North Slope Borough
NSHC	Norton Sound Health Corporation
NWASD	Northwest Arctic School District
NWTC	Northwest Tribal Council
OCS	Outer Continental Shelf
OED	Office of Economic Development (U.S.)
OEDP	Overall Economic Development Plan
P.L.	Public Law
PHS	Public Health Service
QI	Questionnaire Informant

Acronyms (continued)

REAA	Rural Education Attendance Area
RELI	Resident Employment and Living Improvements (program)
S.A.F.E.	Safe and Fear-Free Environment
SIC	Standard Industrial Classification
SOS	State-Operated School
SRC	Social Rehabilitation Center
SWAMC	Southwest Alaska Municipal Conference
U.S.	United States
U.S.S.R.	Union of Soviet Socialist Republics
UIC	Unemployment Insurance Compensation
UIC	Ukpeagvik Inupiat Corporation
USCG	U.S. Coast Guard
USDOI	United States Department of the Interior
VECO	VECO, Inc.
VPSO	Village Public Safety Officer
XCED	Cross-Cultural Education Development (program)
YKHC	Yukon-Kuskokwim Health Corporation

Glossary

Affines	Kin who are related through marriage; "in-laws" without a blood-relationship.
Avunculate	A privileged relationship with an uncle (often including residence in an uncle's home).
Bilateral	A non-lineal kinship system in which the families of the mother and father are not differentiated, nor are the children of brothers and sisters.
Cohort	In social science terminology, a group of persons who comprise a distinct sample defined by properties such as age.
Colaterals	Siblings of core members of a kinship group (such as a nuclear family) and children of one's own siblings.
Consanguines	Kin who are related by blood (in contrast to affines).
Deme	An intermarrying population that forms a sociopolitical unit.
Dendrogram	A "tree diagram" that depicts relative degrees of relatedness and distance.
Emic	Refers to facts that are defined in terms of their cultural classifications.
Endogamy	Intermarriage within one's own bounded social group.
Etic	Refers to objective facts whose reality is independent of cultural classifications.
Exogamy	Marriage outside one's own bounded social group.

Glottochronology	A technique for dating divergence of languages or dialects, based on rates of retention of common words.
Kashim	An Eskimo mens' house, usually used also for ceremonial purposes; this term is associated with Yupik societies (the Iñupiaq variant is usually rendered as qargi).
Kindred	A group of persons related to a common ego in a cognatic descent system; such persons are not all related to one another inasmuch as they are defined in terms of their relationship to a single person (i.e., such a system is ego-focused as opposed to ancestor-focused systems).
Matrilineal	A unilineal descent (kinship) system that defines relatedness and group membership by common descent through females.
Matrilocal	Post-marriage residence with or close to a woman's mother's kin.
Neolocal	Unrestricted post-marriage residence (i.e., spouses may reside where they choose).
Otitis media	Inflammation of the middle ear.
Patriclan	A corporate descent group, usually named, often consisting of several lineages and jointly controlling property and/or privileges, defined by common descent through males.
Patrideme	An intermarrying population that forms a sociopolitical unit organized around patrilineal kin groups.
Patrilineal	A unilineal descent (kinship) system that defines relatedness and group membership by common descent through males.

Patrilocal	Post-marriage residence with or close to a man's father's kin.
Sodality	An association or society (note: society in lay or generic terms, not society in social science terms).
Syncretic	Refers to the merging or fusion of differing concepts, principles, or philosophies.
Virilocal	Post-marriage residence with or close to husband's kin.

Key Informant Summary Introduction

Steven L. McNabb and Joseph G. Jorgensen

INTRODUCTION

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INTRODUCTION

I. OVERVIEW: KEY INFORMANT SUMMARIES

I.A. Introduction to Concepts

The focus of this document, and in fact the entire Social Indicators study, is on Alaska Natives--Iñupiaq and Yupik[1] Eskimos, Athabascans,[2] and Aleuts--for two important reasons: (1) Alaska Natives are numerically dominant populations in rural areas closest to potential offshore oil development sites and (2) their economic adjustments are most vulnerable to potential impacts from such development.

Because key terms and distinctions need to be invoked and explained from time to time, the aims and organization of the Social Indicators study are repeated in this document and also in companion reports that discuss methodology and final analyses. A brief introduction to these terms and distinctions follows.

The research design for the study requires an arrangement of panels of respondents that are sampled repeatedly. The logic and defense for this arrangement is described in the methodology report (Social Indicators II. Research Methodology: Design, Sampling, Reliability, and Validity), which is one of the three final reports of the Social Indicators study. For this introduction, it is sufficient for the reader to understand

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[1]We will use the term "Yupik" without diacritics to refer to all Yupik peoples and dialects, although we recognize that some conventions use diacritics, as in "Central Yup'ik."

[2]Some Athabascans reside in all of the study regions, but they comprise very small minority populations of unknown size. Health-service data show, for instance, that residents of the Alaska Area Native Health Service (AANHS) Interior Service Unit headquartered in Fairbanks, receive primary care on an occasional basis in every other Service Unit (AANHS 1990a). The instruments devoted to Social Indicators data collection did not distinguish among Alaska Natives, so we cannot determine how many Athabascans are in our samples, if indeed any are.

that the sample is stratified in several ways; and primarily for organization and administrative efficiency, households, villages, and regions are divided into groups. These groups are termed schedules and three schedules were developed during the course of this study.

Comprising Schedules A and B are the study areas originally identified by the Minerals Management Service (MMS) for this study (North Slope, NANA, Bering Straits, Calista, Bristol Bay, Aleutian-Pribilof Islands, and Kodiak regions). A list of Schedule A and B sample communities, grouped by region, is provided below.

Schedule A

North Slope

Kaktovik (added in 1988)
Nuiqsut
Anaktuvuk Pass
Barrow
Wainwright
Point Hope

NANA Region

Kivalina
Kotzebue
Deering
Buckland

Calista Region

Alakanuk
Toksook Bay
Scammon Bay
Nunapitchuk
Aniak
Bethel

Aleutian-Pribilof

Nikolski
Unalaska
Saint Paul
Sand Point
Atka

Schedule B

Bristol Bay

Dillingham
Manokotak
Naknek
Togiak

Kodiak

Kodiak
Old Harbor

Bering Straits

Gambell
Nome
Shishmaref
Unalakleet

Comprising Schedule C are communities that were added subsequent to the Exxon Valdez oil spill of 1989. After the occurrence of this spill, MMS expanded the scope of the Social Indicators study so that the impacts of the spill could be assessed. New communities in Prince William Sound and Cook Inlet regions, new communities in existing study areas (Bristol Bay, Aleutian-Pribilof Islands, Kodiak), and original study sites on Kodiak Island were grouped together as Schedule C. Schedule C research and results are discussed in separate documents.

Schedule A villages and regions were first sampled in 1987 using two data-collection tools: (1) QI (or "questionnaire instrument") tools and (2) KI (or "key informant") tools. The QI tool is a forced-choice, precoded, close-ended questionnaire. The KI tool is an open-ended, semi-structured discussion protocol (i.e., a topic inventory that specifies issues for discussion) that is coded and rated (scored) after discussions take place. A subsample of QI respondents was sampled again in 1988. In 1989, the same subsample of QI respondents was sampled, all of the 1987 KI respondents were targeted

for resampling, and a new sample of QI respondents who had never been contacted were sampled. (This last independent sample is referred to as a "posttest" and "discretionary" sample. These terms are conventions that are relatively unimportant in the context of the KI summaries, but it is useful to introduce them now.) All samples were drawn randomly after occupied households in each community were mapped. This three-wave arrangement of staggered QI and KI respondents was therefore complete for the Schedule A villages and regions in 1989. Beginning in 1988, this three-wave arrangement was duplicated for the Schedule B villages and regions, but some nuances were different.[3]

Theoretical contrasts that may serve important analytic purposes in distinguishing among economic circumstances, political arrangements, and other factors were developed soon after the first wave of Schedule A began. These contrasts also are explored fully in other reports. For introductory purposes, it is useful to know that villages were classified along several dimensions: hubs or peripheral villages; level of domination of commercial fishing industry; numerical dominance of Alaska Natives; level of exposure to potential development impacts; and the nature of regional governance. For convenience, we call the contrasts yielded by these distinctions hub or periphery, fishery or nonfishery, Native or non-Native, test or control, and borough or nonborough. Regions are not classified, but the aggregate characteristics of samples within regions may yield the appearance of

---

[3] Those nuances are unimportant in this report, and the reader is directed to the methodology report for expanded treatments of these issues. As an example, the initial, panel, and discretionary samples for Kodiak City and Old Harbor are incorporated in the initial, panel, and discretionary samples for schedule C and were added to new samples for those communities as part of the schedule C effort.

regional categories. In the KI summaries that follow, references occasionally may be made to "hubs," "fishing" or "fishery" villages, and the like. These terms refer to specific analytic constructs and not generic categories. As such, a "fishery" village is not one in which some or all people fish some or all of the time but is rather a village that derives most of its local revenues from fishery activity.

Two types of key informant were interviewed by study-team members: (1) a subsample of questionnaire instrument (QI) respondents and (2) institutional and agency officials who responded to questions about services, infrastructure, social conditions, and a variety of other matters. The contents of the KI summaries reflect these matters. By and large, the KI summaries are based on literature reviews and multiple conversations with institutional key informants. Some information derived from the KI subsample group is included. Team members also maintained journals in which daily entries recorded participant-observation data, impressions, and personal reactions to daily events. Details from these journals *inform* the general descriptions and analyses, but those details are not reported per se. Also not reported here are the genealogies assembled by the field researchers for KI respondents. These genealogies were used to assess interdependencies among responses.

The KI summaries focus on existing secondary documentation and on what key informants told the senior field staff. The QI questionnaires, which were administered by field assistants, are independent of this focus. We emphasize that the KI summaries represent the senior field staff's best appreciation of culture and society in sample villages at the times they were present in these villages. This appreciation is sometimes

well documented, but at other times it is shaped by impressions with scanty empirical support. In the KI summaries, we attempt to distinguish between stronger and weaker sources of support and do not eliminate observations or inferences when they fail to receive ironclad corroboration. This is the nature of ethnography. We also recognize that the deficiencies of some methods are counterbalanced by the strengths of others, which we use in tandem. This is the nature of triangulation. Accordingly, this document is best used in conjunction with the main analytic volume (Social Indicators III), just as the main analytic volume is supported with the ethnographic detail provided in this introduction.

I.B. Introduction to Key Informant Summary Contents

The KI summaries provided in this document comprise sociocultural and socioeconomic profiles of the schedule A and B regions and communities with an emphasis on ethnohistory and Alaska Native culture[4]. These background summaries provide the context necessary for placing the key informant data in proper relief with respect to both history and place. It is the authors' belief that current affairs are best described by illustrating their arrangement in time and space. In this manner, their unique characteristics as well as similarities and contrasts vis-a-vis other periods and other places are exposed.

This document is divided into seven parts, each corresponding to a Schedule A or B region. The organization of each part is virtually identical; but because the availability

[4] This document combines most elements of Technical Memorandum No. SI87-2, Alaska OCS Social Indicators System: Secondary Data and Key Informant Summary for Schedule A Communities, and Technical Memorandum No. SI88-2, the complementary volume for schedule B communities.

of background data and the specific empirical characteristics of the study regions vary, the coverage devoted to each topic varies by region. The interests of study-team members, availability of institutional officials, and scope of perceived issues and ongoing events also influenced the organization and contents of each regional section.

The first section in each chapter describes the history of the region in a thematic manner, with an emphasis on political economy. The remaining sections cover population and demography, community organization and economy, household organization and kinship, and ideology. Each of the chapters concentrates on regional or general patterns but provides community-level summaries whenever feasible, subject to the availability of data and the specific aim of the discussion. The authors emphasize the Schedule A and B sample communities in these summaries, but other regional villages are described when additional contrasts or comparisons are warranted to better describe the Schedule A and B regions and villages.

Each chapter is an independent manuscript that can be consulted alone or used in combination with other chapters. With regard to format, the chapters are paginated consecutively, and tables of contents appear at the beginning of the report and also precede each chapter. Immediately following the overall table of contents is a glossary of terms for the entire document. Immediately following each chapter's table of contents is a list of acronyms to define the acronyms that are used within the chapter. Maps of the Schedule A and B regions follow this introduction, and regional maps showing the locations of Schedule A and B villages follow the tables of contents and acronym lists for each chapter.

II. SOCIAL INDICATORS AND THE CONCEPT OF WELL-BEING

The KI summaries contribute to the larger Social Indicators study by providing ethnographic and ethnohistorical descriptions that depict, as much as possible, the rich context of life and social change in the study areas. The Social Indicators study was motivated in part by the concepts of "quality of life" and "well-being." Because these concepts cannot be measured by single methods, we use several techniques. The KI summaries respond to one set of demands; other analyses respond to other requirements. To situate these KI summaries in a larger picture, it is useful to discuss here the larger context of the study and "well-being." As this discussion unfolds, empirical information and comparisons across study regions will then identify some similarities and contrasts among them that are important to the study.

One aim of this study during its initial stage was to document the attitudes and belief systems or ideologies about quality of life and well-being in the coastal, mainly rural portions of Alaska in which the OCS MMS program operates. This was accomplished through open-ended discussions of these and related topics with household residents as well as institutional officials. The aim was actually twofold: (1) we sought to discover what the life-quality goals were and (2) we simultaneously sought to determine what means were employed to achieve them. Our subsequent waves of data collection monitored changes in those means, and the results of any changes, during intervening sampling periods.

Well-being and related notions, such as cultural health, imprecisely refer to quality of life. Although these terms appear in scientific literature and may have an

appealing or even compelling connotation, there is not a widely accepted set of variables to measure quality of life let alone an empirically warranted theory of well-being (Levy and Guttman 1975; Land and McMillen 1980; Jorgensen, McCleary and McNabb 1985).

Colby (1986, 1987) has addressed the philosophical and measurement problems associated with early attempts to assess cultural well-being. He concludes that a theory of cultural well-being must be based on ideology and the folk theories in which ideology is embedded, the way in which ideology affects behavior, and the "rationales and mechanisms that motivate and promulgate ideology." In short, attitudes, opinions, beliefs, and ideas allow us to evaluate well-being. Colby suggests that cultural responses to similar situations are similar among many individuals and that individuals are motivated to respond by various but often similar factors. These responses are recognized as "cultural" because they are influenced by the common ideology that has been learned and is shared.

Colby's view generally agrees with ours, especially with regard to ideology. We maintain that the factors that have initiated the greatest number of changes in Eskimo and Aleut society over the past two centuries have been political and economic. For most of the 20th century, Eskimos and Aleuts have responded to political economic forces initiated and controlled by businesses and governments located outside Alaska. More recently, and during the last three decades in particular, State Government has assumed a pervasive importance in Native society. Our research suggests that Eskimo and Aleut responses to political and economic factors--which have taken several forms including domination, expropriation, exploitation, and welfare--have been conditioned by

ideology. To underscore this point, we need only consider examples like Iñupiaq responses to International Whaling Commission proposals to limit bowhead harvests. Other examples of contemporary events, such as debates over the Alaska Native Claims Settlement Act (ANCSA) amendments and state compliance with Alaska National Interest Lands Conservation Act, are equally good evidence that Alaska Native responses are linked to their cultural ideologies. We also note that some features of Native society are themselves very pervasive--particularly attitudes about and uses of naturally occurring resources, sentiments, and behavior toward kinspersons, sharing of resources and skills throughout networks of kinspersons and friends, and so on. These, too, are expressions of ideology.

II.A. Implications of Quality of Life[5]

Quality of life is not a simple concept but rather one that must be assessed as a complex multidimensional construct. To some extent, quality of life is an individual phenomenon that must be measured at the level of the individual and the household. But in other respects, quality of life is a feature of civic, social, and economic institutions--schools, governments, hospitals, churches, and so on. Certainly these features of life quality associated with such institutions are related: adept leadership, efficient government, and quality services often translate into perceived life satisfaction at the individual and household levels. It is, in fact, the function of those institutions to meet life needs, and institutions generally are the bodies charged with the responsibility

[5] Sections of this introduction are based loosely on McNabb (1990a).

for addressing social needs. To the extent that a connection exists between institutional performance and quality of life at individual and household levels, we should expect the social changes we are analyzing to be evident at the institutional level. By this, we mean that we should be able to detect important domestic changes by detecting changes within institutions, despite the fact that quality of life is experienced at the domestic level.

This connection between life quality and institutional performance is often tenuous or even counter-intuitive. An enormous literature in anthropology, psychology, and sociology demonstrates that expectations and subjective attitudes--the ideas that people have about what they need, what they deserve, what makes their life condition and the conditions of their neighbors seem fitting and proper--change in accordance with their perceptions of other circumstances. Perceptions of life quality vary from society to society and on the basis of gender and age, among many other factors. Consider these examples: nationwide, the elderly and females typically feel themselves to be more vulnerable to crime, yet young males are far more often victims of crime; expressed fear of crime generally grows in proportion to arrests and successful prosecutions; and, based on a large survey sample here in Alaska, residents with the highest incomes and most stable jobs are more apt than others to express dissatisfaction with local economic conditions and institutional performance (McNabb 1989). In short, people tend to assess their life quality differently using variable standards and based on different expectations.

Many social scientists who investigate quality of life identify only one objective dimension of interest: physical health.[6]

Quality of life in the AOSIS[7] study is considered, in part, an ideology. For this reason we sought to determine what those ideologies are in the sample communities through documenting life-quality goals, the methods used to attain them, and changes that occurred in these goals and methods during the course of this study.

II.B. On Political Economy

If we focus on the most recent 20 years of Alaska history, it is apparent that consequences from economic activities cannot be separated from the consequences of the political acts that made these activities possible. It was 1959 when Alaska achieved statehood and about a decade later when intense lobbying by oil companies set the U.S. Congress in motion toward opening Alaska to oil exploration and drilling. The ANCSA, ratified in 1971, was a major consequence of the desire to extract the oil reserves from Prudhoe Bay on the North Slope.

The ANCSA has been a primary source of change to village culture. Not only did it extinguish aboriginal hunting, fishing, and land rights (or claims to such rights), ANCSA also:

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[6] Health is subject to the same problems, however. Because perceptions of health, actual health, and use of health services vary on the basis of class, ethnicity, age, gender, and other factors, and because these factors may intercorrelate, it is a serious empirical challenge to disentangle the factors and relate them to "life quality."

[7] AOSIS is an acronym for Alaska Outer Continental Shelf Social Indicators System. It is synonymous with the Social Indicators program.

- extinguished or greatly modified the effects of Federal legislation that pertained to Native governments, reservations, and individual allotments of land in Alaska (the Indian Reorganization Act [IRA] as extended to Alaska in 1936, the Reservation Act of 1891, and the Native Allotment Act of 1906);
- provided nearly $1 billion that was distributed among regions and villages, and made possible the establishment of village-level institutions that seek and acquire State and Federal funds;
- mandated village-level and regional-level corporations (for profit and nonprofit) and formal relations between village and regional corporations; and
- provided for title to land to Native corporations totalling about 10 percent of the State's surface. This land, in turn, can be conveyed to villages and thence to individuals with regional corporations retaining all subsurface rights.

Although these are but a few of ANCSA's provisions, changes to the political and economic institutions of the village have had wide consequences that have affected relations among residents, household economies, family-household organizations, subsistence pursuits, and other key elements of village culture. The historic and ethnographic record on these changes is fairly extensive. A small sample of this empirical literature includes studies of Northwest Alaska (Burch 1975; Jorgensen, McCleary and McNabb 1985), the North Slope (Luton 1986; Worl and Smythe 1986), Saint Lawrence Island (Little and Robbins 1984), Norton Sound (Jorgensen and Maxwell 1984), Yukon-Kuskokwim (Fienup-Riordan 1983), and the Aleutian-Pribilof Islands (Stephen R. Braund and Associates 1986). The ANCSA required that regional and

village for-profit corporations go public in 1991. The 1987 ANCSA amendments require alienation votes among shareholders before stock may be sold (or votes to extend the 1991 deadline) and, as this document goes to press, the full ramifications of both ANCSA and the ANCSA amendments remain cloudy. On the other hand, it is clear that the Statewide economic slump of the post-1985 period is a key factor motivating corporations and shareholders to protect and optimize their economic assets, minimize losses, reduce expenditures, and maximize profits.[8]

Whereas the motor that has driven the Alaska economy for almost two decades has been oil--its extraction and transportation--the public sector paved the way for oil extraction through ANCSA and other public lands settlements and through legislative and judicial actions that altered Native governments, services, and rights. The public sector developed the infrastructure (roads, airstrips, harbors, storage buildings, water systems, sewer systems) and provided the services (air control, protection at sea, weather information, research, etc.) that facilitated the extraction and transportation of oil. The public sector also provides substantial sources of earned and unearned income to Natives and, in fact, is an important industry everywhere in Alaska.

Our investigations of 31 sample villages in seven regions have determined that village for-profit corporations are not financially successful. Most villages are deeply dependent on Federal and State income transfers that flow through their sundry village

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[8] Other concerns, such as alienation of stock and 1991 amendments, undoubtedly are important, too. The post-1985 slump, however, produced economic effects across all industries that affected both ANCSA and other businesses. For instance, cuts in construction budgets reduced business for most construction firms, and some construction firms are owned by ANCSA corporations. ANCSA corporations are not uniquely affected.

and regional institutions to supply cash, jobs, services, infrastructure, and welfare. While there are notable exceptions, most AOSIS village corportions and their regional counterparts have not successfully penetrated the market and established viable industries or businesses. Private sector economic multipliers have not operated in self-sustaining economies to increase local businesses and employ local labor. Few regional corporations have had sustained investment successes (almost invariably outside their own region) for reasons that are poorly understood.

When Congress passed the ANCSA in 1971, 200 corporations (13 of them regional, the others village) were formed as vehicles for carrying out the intent of the act. Several surveys by the General Accounting Office show that in the post-1980 period, nearly half of the corporations lost money. Only one regional corporation has consistently reported profits. Estimates of total losses for 1 year alone, 1983, reach $150 million (see Flanders 1989:299). As a group, the regional corporations have lost money on their business ventures, but these corporations jointly produced in excess of $500 million in net income between 1974 and 1990. Though the real accrued wealth of the corporations has only increased by about 10 percent over their initial capital, the corporations have in some cases produced other shareholder benefits. For example, NANA and Arctic Slope (ASRC) employed 20 percent or more of their shareholders (Colt 1991).

A great deal of analysis of these problems ensued after the first pessimistic observations surfaced, and some analysts have argued that these and other difficulties can be traced to the foreign nature of corporations (compare Anders and Langdon 1989;

environment; and the resources that are extracted are shared with village elders and through networks of kinspersons, affines (persons related through marriage), and friends within and beyond the village. Helping persons with subsistence tasks, helping them when they are ill, repairing equipment and homes, and giving goods without the expectation of return is commonplace.

It appears to us that sharing, helping, and giving among Eskimos and Aleuts in our sample is conceptually different from market-exchange practices for standard values or the higgle-haggle of barter. It also is conceptually different from the concept of reciprocity that recognizes that the donor of a service or an object will receive a service or object from the original recipient at a future date. Our observations are that some Native persons give much more than they receive, but the recipient is conceived of as the community, not as a personal recipient. There seems to be a cultural institution of giving, and that institution frequently is expressed verbally.

If sharing--which we use here to include helping and giving--is a basic feature of Eskimo and Aleut cultures, an ideology of sharing accompanies the manifest acts of sharing. Sharing, it appears to us at this point, is linked to other features of Native ideology, particularly to the significant symbols that are associated with space and place. Space is where Natives live. It is the land, water, and air that encompasses where they live and procure their livelihoods. Place is the location within the larger range in which homes, camps, and other areas that are used and given definitions and meanings by Natives are situated. Sentiments attached to space and place vary within Alaska, but among all of our sample villages the residents treasure their space, resent State and

Federal controls over it, fear the loss of the parts they now own (subsequent, for instance, to stock alienation), and are mounting forces to resist further losses.

Neither space nor place is defined solely by ownership rights. Memories of procuring resources, entertaining friends and relatives, burying the deceased, visiting affines, rearing children, withstanding a storm, receiving aid from a kinsperson, trading with a partner, and listening to stories told by elders are some of the elements that are associated with the assigning, retaining, and teaching of the significant symbols associated with space and place.

II.D. A Brief Note on History

The current situations of the 31 villages in this study are not solely the products of oil-related developments or of the ANCSA legislation that facilitated those developments. It is evident that as trading with and employment by non-Natives became available to Natives, many seized those opportunities. In the early stages of contact, Aleuts were not allowed to withhold their labor. They were pressed into service by the Russians. As technologies became available that increased hunting efficiency, territorial mobility, and comfort--while decreasing labor time--those technologies were adopted. In turn, to avail themselves of the technology that has transformed so much of Native village life, people had to sell their labor, or sell goods, or become dependent on the government that expropriated them.

About 200 years ago, Europeans began trading directly with Aleuts; 150 years ago, they began trading directly with Eskimos (indirect trade occurred 150 years earlier). Soon thereafter, Natives were hiring onto whaling vessels and selling food, pelts, and

labor at whaling stations. Christian missionaries, earlier among the Aleuts than among the Eskimos, were next to arrive. The former were attached to the Russian American Company and operated schools and missions. Those who worked among mainland Eskimos operated federally subsidized schools and reindeer herds. Soon after that, Christianity came to dominate Native beliefs, and hence to obviate the function of shamans.

In the past 50 years, the populations of most villages in our study have expanded--some only recently established--as smaller hamlets have declined in population. In many of them, women have become more active in subsistence pursuits that were once restricted to men. Permanent houses in sufficient numbers have been built to allow for the breaking apart of many extended family households to nuclear families residing in single-family residences.

The demographic pressures stem chiefly from growth patterns of the Alaska Native population and probably affect the future economic prospects of that population more than any other. The average number of children born to Alaska Native mothers dropped from 3.8 in 1970 to 2.5 in 1980, but fertility may have increased slightly after 1980. Regardless, the size of the young adult Alaska Native cohort has increased dramatically, and the birth rate is rising rapidly. Alaska Natives in rural census areas posted a birth rate of less than 30 per 1,000 between 1970 and 1980, but that rate has risen to almost 40 per 1,000 in 1986. The effects of a large and growing young adult cohort on overall rates of growth are analyzed in McNabb (1989 and 1990c).

At rates of growth calculated for 1980, the Alaska Native population will double every 26 years. The post-1980 rate probably is higher. Based on census data and more recent population, mortality, and birth data, it seems likely that the youngest Native cohort (age 0-9 years) will grow by about 40 percent between 1980 and 1990. These children will place increasing demands on institutions for essential services--housing, education, and health care. Because the growth rates for small Native villages are virtually identical to the rate of growth for the entire population (2.2% compared to 2.4% through 1980), the populations of tiny, remote villages are not collapsing. Instead, as this decade draws to a close, it appears that population pressures are great and will become more intense where facilities are least able to absorb that pressure.

Since about 1960, some aspects of Eskimo culture (Aleut culture requires separate assessment) have changed quickly and dramatically following the widespread adoption of motorboats and snowmachines. Dog teams have been drastically reduced in numbers, lessening the necessity of daily hunting to feed the dogs. Populations have become even more concentrated in a few villages. Wintertime movements for subsistence pursuits have come more to involve lone hunters or groups of men rather than entire families and wider networks of kinspeople and friends. Many pursuits that once required weeks for completion now can be completed in a few hours. Even long-distance caribou hunts in the NANA and North Slope regions take only a few days.

Except for the communities with substantial commercial fisheries in the Aleutian-Pribilof, Bristol Bay, and Kodiak regions, the local economies in all of the villages in our study are greatly dependent on sources of unearned income. In fact, all cities in Alaska

exhibit notable dependencies on unearned revenues, chiefly in the form of in-kind transfers for health and education services and capital improvements. Looking only at cash payments, for example, permanent fund dividends alone disburse almost half a billion dollars to Alaska residents each year; and other programs (such as longevity bonuses) are unique to this State. Unearned income is particularly important in rural, Native villages because it contributes a relatively greater share of revenue there, compared to urban centers with diversified economies. Federal and State grants, transfer payments, legislative programs, agencies, and awards provide the cash that allows Natives to maintain their subsistence pursuits and to provide health care, shelter, and clothing.

III. ECONOMIC CONDITIONS: A SUMMARY

Insofar as the Schedule A and B sites are Alaska villages and, moreover, rural Alaska villages, it is predictable that the private sector will be highly constrained; government transfers underwritten by oil revenues will dominate local economies; and, because political decisions control the flow of the largest transfers, sources of economic support generally will be erratic and unsustainable. The communities with robust fisheries economies will be somewhat sheltered from these effects. But because fisheries incomes also are erratic, we believe that most study sites will exhibit more or less unstable economies and that differences among communities are largely due to fisheries activity, the abilities of hubs to garner disproportionate shares of State funds, and differences in the political savvy and persuasion of some rural constituencies.

Figure 1 serves as a good introduction.[12] Here we see 1985 personal incomes from wages depicted among all Social Indicator sites. Hubs (i.e., Barrow, Bethel) secure relatively immense funds for the support of regional services, such as health and education, and thereby support disproportionate payrolls; they serve as staging areas for capital improvements elsewhere in a region; and they exercise a wide range of regional administrative and trade functions. The fisheries communities often may provide the same sorts of services, because they are hubs (i.e., Dillingham, Unalaska, Kodiak). In addition, they boast relatively strong private sectors.

A comparison between overall income and local government payrolls is instructive because the disparity between the two is a measure of how large the private sector is (Fig. 2). Barrow is an unusual case; the local government payroll does not include the North Slope Borough in this case. But compare Saint Paul with Kodiak; in Saint Paul, almost three quarters of all income comes from city employment[13] whereas in Kodiak, the figure is closer to half. These comparisons underline some differences that relate to economic dependency: communities like Saint Paul have relatively undiversified economies with great reliance on the public sector.

Nonwage income patterns also are different among the communities. Sites with stronger private-sector activity (chiefly fishing) and, we suspect, a stronger sense of

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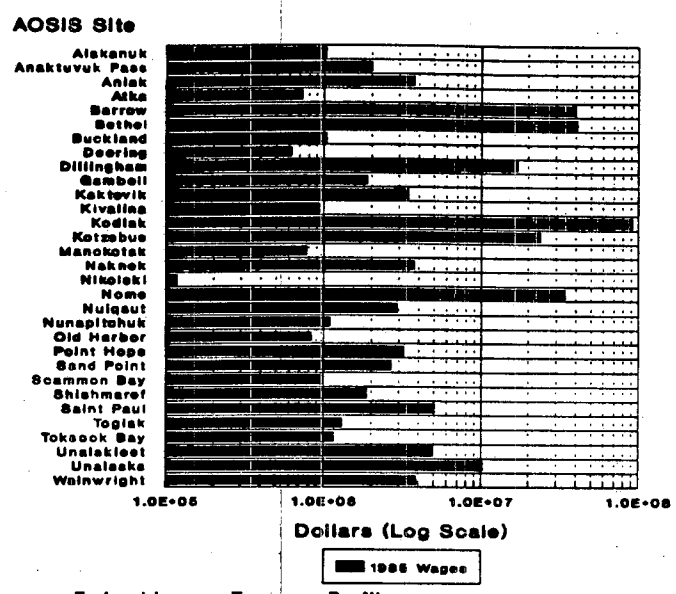
[12] A log (logarithmic) scale is used in figures because it reduces the graphic effect of wide disparities due to different population bases. Each major increment on the scale is 10 times larger than the previous increment. Great differences are collapsed, though not in exact proportion to population differences. The scale is a graphic aid for comparisons.

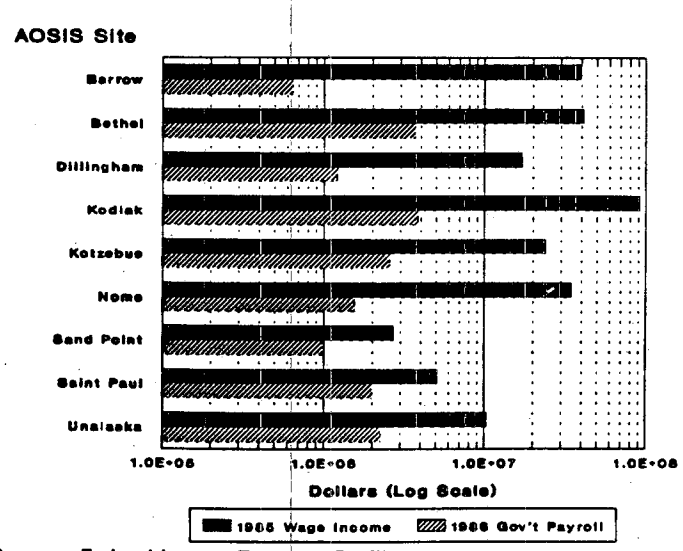
[13] Note that the comparison years are different, but we trust that a moderately accurate comparison can be made despite the difference. Compatible data for a single year are not available to us for the AOSIS sites.

Figure 1
1985 Personal Income From Wages
Schedule A and B AOSIS Site Communities



Source: Federal Income Taxpayer Profile 1983-1985 (Alaska Dept. of Revenue 1988)

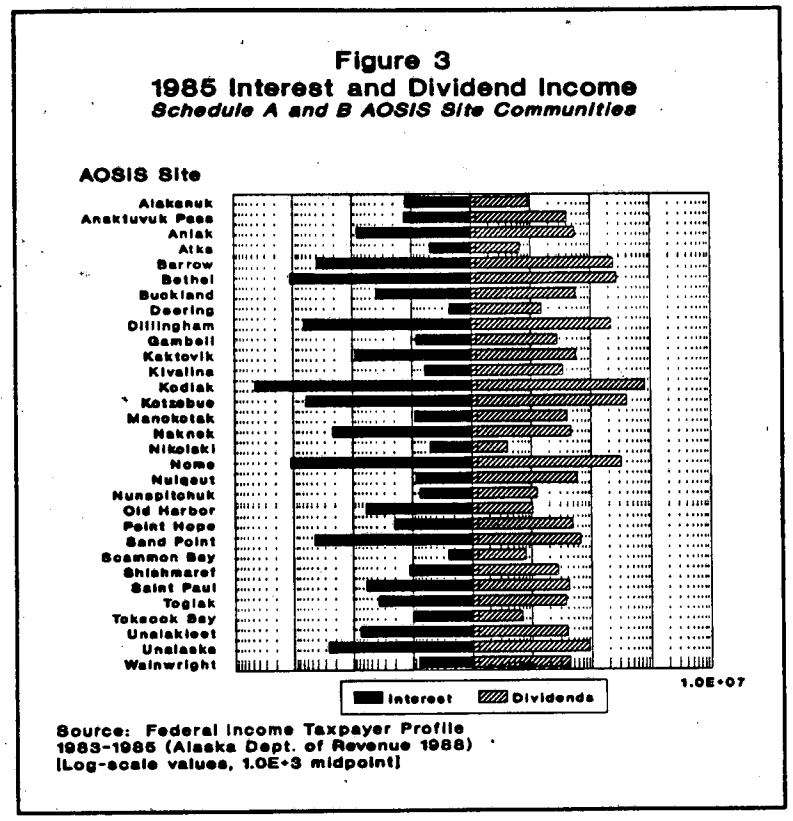
Figure 2
1985 Income and 1986 Local Gov't Payroll
Selected AOSIS Site Communities



Source: Federal Income Taxpayer Profile 1983-1985 (Alaska Dept. of Revenue 1988) and Alaska Dept. of Labor (1988:7).

entrepreneurship and independence, tend to secure incomes that are fairly balanced if we compare *interest* and *dividend* income. Much of the dividend income derives from the Alaska Permanent Fund Dividend. Interest income, on the other hand, requires active steps and deposits of personal income to yield returns (see Fig. 3).

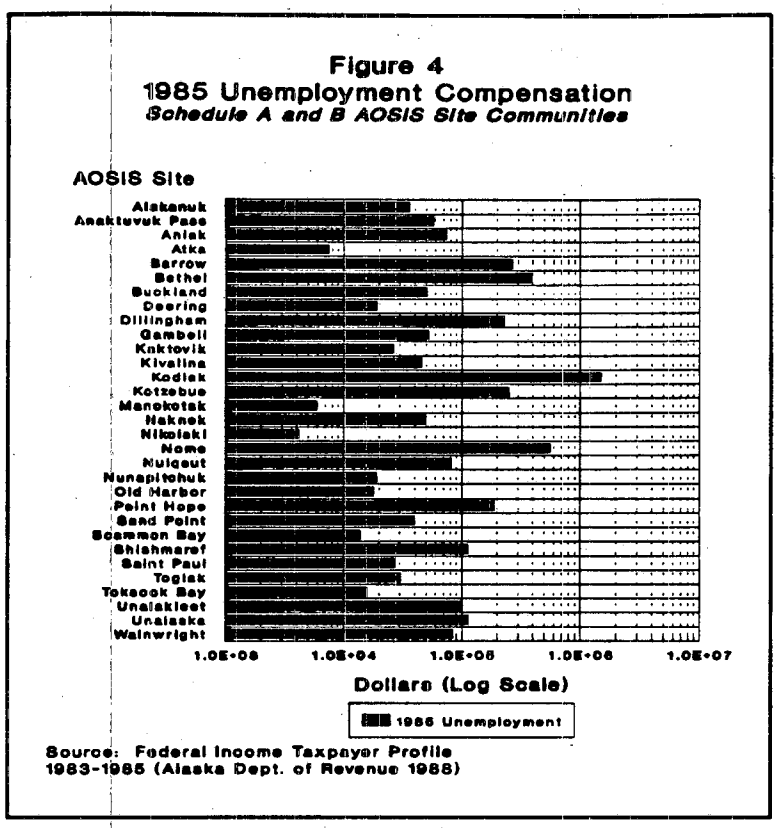
Some of the smaller, impoverished villages and villages highly dependent on transfers (such as Scammon Bay, Wainwright, Deering, Gambell, Kivalina, Nuiqsut) secure little interest income in comparison to their dividends. None of the fishing communities or hubs with some private-sector opportunities and substantial non-Native populations display this pattern.



The pattern of unemployment insurance compensation (UIC) payments reveals less spectacular variations than does the pattern of wage income. This is probably true for two reasons: first, UIC payments are not received by all unemployed persons but only by those who work a requisite number of quarters; second (and related to the first point), self-employed persons and entrepreneurs with unstable work schedules are less

apt to receive UIC (unless they combine their self-employment with periodic wage work for an employer). Thus, in communities with the most transient and unstable opportunities, UIC payments will be disproportionately low despite the presence of real unemployment.[14]

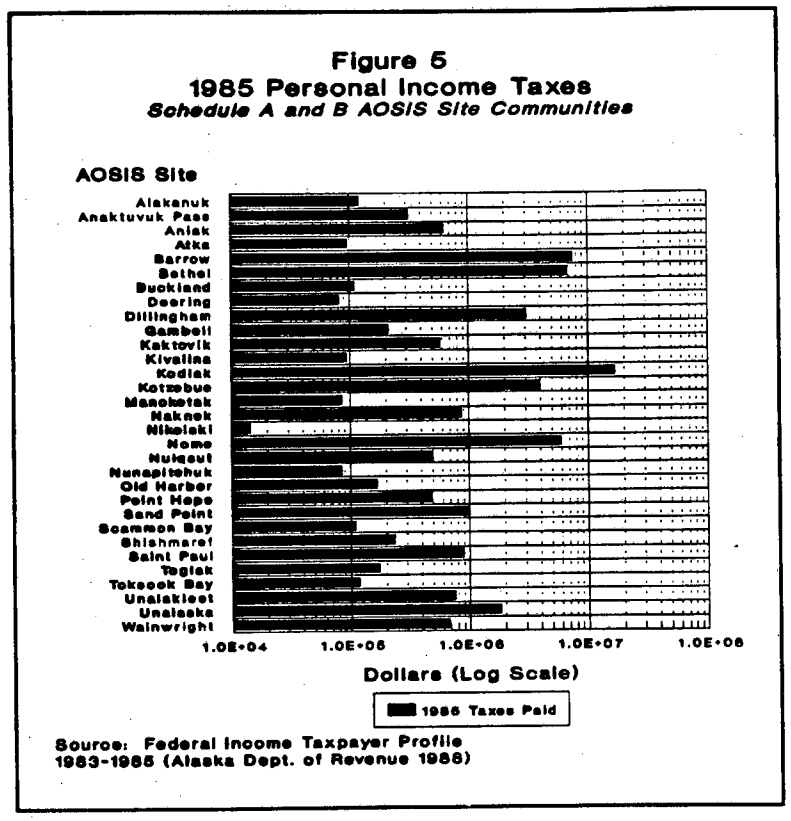
Figure 4, which compares levels of unemployment compensation, shows a much-reduced disparity between communities displayed in Figure 1: Kodiak UIC payments far exceed those received by other communities, but the gap is less than the one evident when we examine wage income. What this means is that some real unemployment is hidden, but we do not know to what extent. In all likelihood, the pattern shown here means that unemployment (however we define it) is highest in the smallest peripheral villages, whereas the lower levels are displayed in the hubs and large fishing communities



[14] The institutional definition of unemployment and the fact of real unemployment are discussed in McNabb (1989). The Alaska Department of Labor (ADOL) is quick to admit that the two are not the same, yet ADOL is required to use Bureau of Labor Statistics definitions that apply poorly in rural Alaska. In any event, it is clear that patterns of UIC payments may say more about the blend of industries and range of opportunities in a village than about unemployment per se.

(which often have a more elaborate private sector). When small, peripheral villages such as Atka and Manokotak show more or less similar levels of wage income and unemployment compensation, this pattern may entail sporadic employment opportunities that do not always permit unemployment compensation upon termination or layoff, because the resident worked for a very short period.

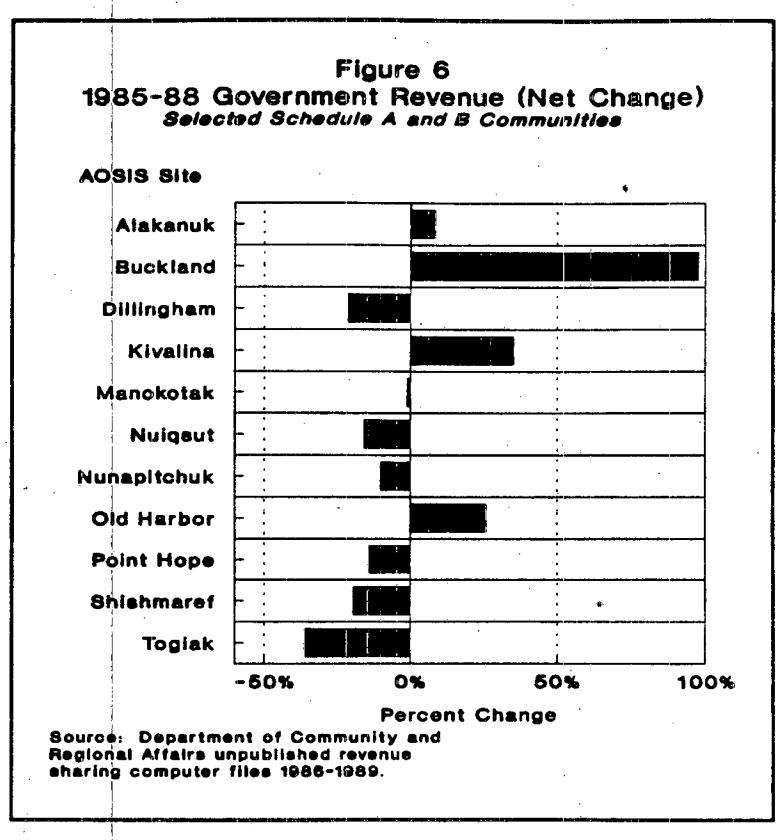
Figure 5 depicts personal income taxes paid for 1985. The pattern displayed here generally is symmetrical to the pattern of wage income shown in Figure 1, but the disparity between the largest fishing community (Kodiak) and the other sites is reduced. It is likely that this discrepancy is due to two factors:



(1) transient workers in Kodiak who listed their residence outside the area and filed their taxes elsewhere and (2) a higher proportion of business-related deductions associated with the fishing industry. Yet even in this case, we see a persistent disparity, shown also in Figure 1, that leads us to infer that employment and other economic opportunities are not uniform on a relative or absolute basis (i.e., communities of similar size, even if positioned similarly, do not

receive similar wages nor pay similar taxes). One important cause of this disparity is differences in levels of government revenue, which pay for services, buy capital improvements, and underwrite government payrolls (and indirectly sustain other payrolls).

Figure 6 displays net changes in Government revenue (State plus Federal revenue sharing) over the 1985-1988 interval. We possess data for only a sample of the AOSIS sites, and must also stress that comparisons of net changes over <u>any</u> interval will be distorted, because capital-improvement grants are distributed in waves only to some communities at any given time. Those grants tend to outweigh standard entitlements and operating expenses; hence, they can act like "outliers" that make comparisons difficult.



But what does this comparison show? Revenues dropped for most communities in the postboom period, but four communities managed to secure increases. It is impossible to confirm our hunch, but we are inclined to attribute the large increases in

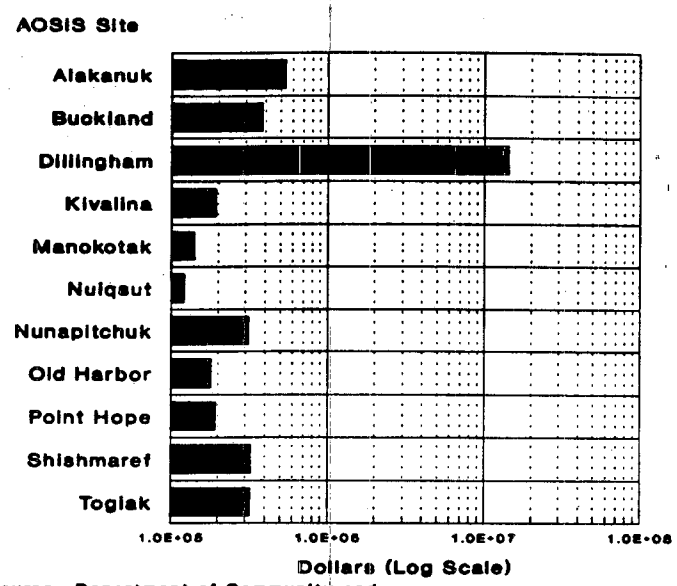
Buckland and Kivalina to an especially astute and powerful political leadership in the NANA/Northwest Arctic Borough region, a region that often captures disproportionate levels of funding and special privileges in Juneau. Obviously, the discrepancy could be an accident of history (i.e., those communities may have been due for appropriations anyway); but because we know that capital appropriations are political decisions, that aspect of funding cannot be ignored.

But hubs virtually always secure disproportionate levels of funding, and for good reason--headquartered in hubs are regional facilities such as school districts; health facilities; and a wide range of trade, administration, and transportation and communications offices. Despite the percentage drop noted for Dillingham, hubs like Dillingham typically lead all other communities in revenues.

Figure 7 illustrates this point. Dillingham leads the other sample communities by a factor of over 50. The pattern of peak revenues over the 1985-1988 interval is not so clear for the other towns. The Nuiqsut population exceeds that of Nunapitchuk, yet Nunapitchuk secures higher peak funds (but note that State revenue decisions undoubtedly take into account alternative sources of funds, such as the North Slope Borough).

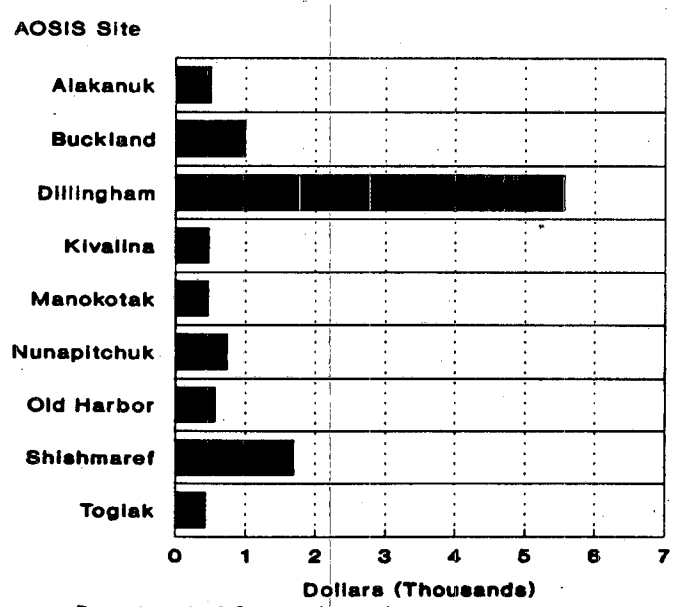
Yet despite the use of a log scale, differences in population are poorly revealed in this comparison, and peak revenues entail historic artifacts. Figure 8 depicts average per capita expenses in selected communities. Expenses are not the same as revenues, and will include the use of revenues from fish taxes and license fees (among other things). Expenses also may exceed revenues, if debts are being discharged, or may fall below

Figure 7
Peak Annual Revenue - 1985-88 Interval
Selected Schedule A and B Communities



Source: Department of Community and Regional Affairs unpublished revenue sharing computer files 1986-1989.

Figure 8
Average Per Capita Expenses, 1985-88
Selected Schedule A and B Communities



Source: Department of Community and Regional Affairs unpublished revenue sharing computer files 1986-1989.

revenues. Nonetheless, expenses comprise a good indicator of institutional economic activity.

The dominance of a hub community (Dillingham) is clearly shown in Figure 8. The expenses in Shishmaref, which are disproportionate to its size, are due to a capital-improvement project that was under way during the sample period. But even the presence of a major capital improvement is insufficient to counterbalance the tendency for hubs to dominate the economic arena on a per capita basis. Funds for support of regional education typically are the largest revenues (and largest expenses) by category in hub communities.

IV. SELECTED COMPARISONS AMONG REGIONS AND ETHNIC GROUPS

As stated in Section I.A., this document (and in fact the entire Social Indicators study) focuses on Alaska Natives--Iñupiaq and Yupik Eskimos, Athabascans, and Aleuts--because they are numerically dominant populations in rural areas closest to potential development sites and whose economic adjustments are most vulnerable to development impacts. But Alaska Natives do not comprise a uniform category. It is unclear whether or not "Alaska Natives" ever comprised a uniform group, because available evidence suggests there may have been multiple Beringian migrations. It is neither within the scope of this project to assess the prehistoric record, nor is it necessary. It will be useful, however, to illustrate some important similarities and contrasts between ethnic groups and regions to show (1) that the cultures of study populations are not independent, nor were physical and social boundaries impermeable, and (2) that the broad characteristics require analysts to devise finer and overlapping contrasts to identify salient similarities

and differences among study populations. The references to "hub" communities in the preceding analysis depict one sort of contrast that is empirically and theoretically justified. This issue is amplified in the next subsection, which discusses analytic concepts that arise from time to time in the KI summaries.

The effects of isolation on one hand and sustained contact on the other are unambiguously reflected by language in the Eskimo and Aleut case. Figure 9 illustrates relative linguistic distances among major Eskimo and Aleut ("Eskaleut") branches, although it ignores important but less well-documented distinctions among Iñupiaq and Aleut dialects (or possibly "languages" in the Aleut case). The Central Yupik and Chevak-Hooper Bay languages are very similar, supporting a view of more intense and regular contact among persons representing those languages. The level of contact diminishes as one moves out to other languages.

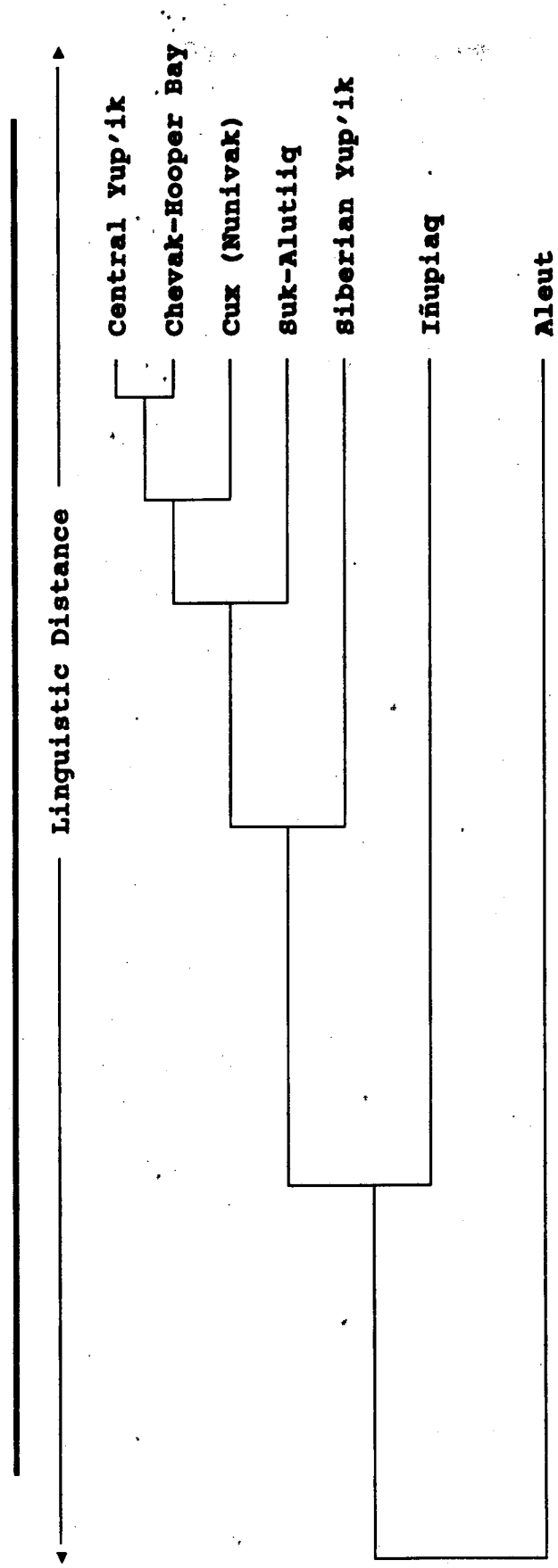
It is very difficult to assess the meaning of the depths of linguistic differences evident in analytic graphs such as this. Glottochronology, a form of linguistic analysis, has attempted to measure linguistic change in a systematic fashion by assuming that linguistic change, like radio-isotope decay, is constant. This assumption is highly problematic. But assuming it is true, the major branch separating Aleut from Eskimo might have occurred about 5,000 or more years ago (Woodbury 1984:61).[15]

A more contemporary depiction of Alaska Native contacts at and across social boundaries is achieved by looking at current health-service utilization. All Alaska Natives are eligible for services at any Alaska AANHS clinic or hospital, but because

[15] The linguistic dendrogram is a rough depiction of relative distances, and so no scale is provided.

Figure 9

Linguistic Affinities Among Aleut-Eskimo Languages
(Source: modified from Woodbury 1984)



service unit residence information is collected, it is possible to crosstabulate residence and care provisions--in essence, place of residence and place of service. Table 1 provides this crosstabulation for fiscal year 1989. Only five service units are compared, because the Aleutian-Pribilof and Kodiak services are combined with many others through the Anchorage service unit. The numbers represent patient contacts.

Table 1 also answers the question, "Who is served by regional services?" If only those Natives who were born in or lived in the region were served, only the diagonal cells would be filled; and the comparison would portray a stark isolation leading to some type of regional "segregation." However, this is not the case: the boundaries between regions are open, and there is considerable interregional movement. But this movement, which is evident only in service utilization in this context, is uneven; some service nodes are more isolated, and some are far less so. It would be interesting to assign specific meanings to the discrepancies in the patterns. For instance, relatively few residents outside the Norton Sound region seem to use the services within the region. Does this reflect little contact in the region, avoidance of services while in the region, or something else altogether? We have no empirical information on these matters, but we may infer that higher rates of use by nonresidents indicates minimally that contact occurs (and we cannot infer in the opposite direction--low rates do not imply isolation). With this in mind, it appears that the Kotzebue and Yukon-Kuskokwim areas are nodes for travel between and among these regions. Bear in mind, however, that contacts may be repetitive and do not necessarily represent persons. In any event, these data show in a graphic sense that the Alaska Native populations are mobile, transient, and

"unsegregated" by at least some measures. Accordingly, Native regions are not insular districts that lack substantial cultural traffic back and forth. That traffic, however, is not balanced.

Table 1

PLACE OF RESIDENCE AND PLACE OF SERVICE, AANHS PRIMARY HEALTH CARE SERVICES, FY 1989

Residence	Care Unit				
	Barrow	Bristol Bay	Kotzebue	Norton Sound	Yukon-Kuskokwim
Barrow	16,957	8	84	5	13
Bristol Bay	19	11,297	48	0	292
Kotzebue	195	39	19,335	9	13
Norton Sound	10	1	168	17,946	35
Yukon-Kuskokwim	15	194	58	5	38,845

Source: AANHS 1990a:19.

Vital statistics can be useful accounting devices because they represent key lifestage (and hence social) events; births, deaths, marriages, and so on represent changes in social arrangements. This subsection concludes with a matrix of vital statistics that illustrates the frequencies of these life events for the most recent year for which data are available (1987) (see Tables 2 and 3).

Although this matrix provides information that is useful on its own terms, one key value lies in the discrepancies among regions with larger non-Native populations. The numbers of marriages and, to a lesser extent, divorces are relatively higher in the

Aleutian-Pribilof and Koniag regions, both of which have large, young, non-Native populations and significant military populations. Our observations generally have shown that Alaska Natives accept the bureaucratic requirements of significant life events more

Table 2

SELECTED VITAL EVENTS[a] FOR 1987 BY REGION OF RESIDENCE: BIRTHS, DEATHS, MARRIAGES, DIVORCES, AND ADOPTIONS

Residence	Births	Deaths	Marriages	Divorces	Adoptions
Aleutian-Pribilof	2.26	0.21	1.01	0.12	0.02
Arctic Slope	2.71	0.58	0.44	0.31	0.31
Bering St.	2.82	0.56	0.68	0.33	0.32
Bristol Bay	2.87	0.52	0.54	0.13	0.07
Calista	3.25	0.53	0.54	0.09	0.19
Koniag	2.29	0.38	1.14	0.60	0.10
NANA	3.54	0.81	0.61	0.03	0.20

Source: AANHS 1990b; Alaska Dept. of Health and Social Services 1990.

[a] Vital statistics are rendered as rates per 100 population.

slowly and more rarely than do non-Natives. Indeed, marriages may be formally registered only after the birth of a first child, if then. In simple terms, Alaska Natives are more likely to marry and separate according to their own customs, not in accordance with formal institutional procedures. Traditional ideology and practice may not be entirely compatible with agency desires in these respects. This does not mean, however, that such data are entirely misleading or permanently so. Alaska Natives customarily

have had little incentive to adhere to formal adoption requirements, but new financial requirements associated with permanent fund checks make it more likely that adoptive parents will fulfill some obligations to dispose of funds belonging to dependent minors. In this case, modest bureaucratic changes may lead to modest culture change that will eventually be reflected in formal statistics.

Table 3

ACCIDENTAL DEATHS RATES FOR 1987 BY REGION OF RESIDENCE

Residence	Accidental Deaths[a]	U.S.
Aleutian-Pribilof	NA	
Arctic Slope	160.0	39.5
Bering Strait	139.7	39.5
Bristol Bay	194.4	39.5
Calista	152.8	39.5
Koniag	NA	
NANA	160.7	39.5

Source: AANHS 1990b; Alaska Dept. of Health and Social Services 1990.

[a] Injuries (accidents) are the leading cause of death for Alaska Natives in all study areas (we do not have Alaska Native data for Kodiak, but medical specialists generally concur in this assessment). The accidental death rate is expressed as a 3-year rate (1985-1987) per 100,000 population, with a U.S. comparison.

V. OTHER SOURCES OF INFORMATION

This section describes and briefly evaluates sources of information that may be consulted for expanded treatments of issues addressed here and in each of the KI

summaries. Some citations of special merit that already have been referenced here or in the KI summaries to follow are noted. Some sources have generic value and deal with a particular region only occasionally or indirectly; other sources are more specific.

Volume 5 (Arctic) of the Handbook of North American Indians, edited by David Damas (1984) for the Smithsonian Institution, is a standard ethnological reference for Alaska Native cultures west and north of Southcentral Alaska. It is valuable as an introductory source and also as a more focused and detailed reference for all of the regions described in this document.

For the North Slope, Spencer (1984a and b) and Hall (1984) are especially good and especially relevant. For the NANA region, Burch (1984) is particularly good. Ray (1984) and Hughes (1984) should be read together for the Bering Straits region, but it will be useful to read Hughes (1984) with VanStone (1984a and b) to gain a sense of Yupik cultural differences. (Because the chapters are organized along both cultural and geographic dimensions, artifacts of contemporary sociopolitical organization, i.e., the encapsulation of Saint Lawrence Island in the Bering Straits region, require that chapters be used in combination.) For the Calista region, VanStone (1984a and b) and Lantis (1984b) can be used in tandem, and VanStone (1984a and b) should be consulted for Bristol Bay with period reference to Clark (1984) and Davis (1984). Clark (1984) and Davis (1984) describe the Kodiak area, and Lantis (1984a) provides a good introduction to the Aleutian-Pribilof region.

The strongest chapters in Damas (1984) are Burch (1984), Ray (1984), and VanStone (1984a and b). Other chapters dealing with prehistory and thematic issues in

the postwar period are consistently good. The bibliography for that volume is extensive and is useful for both novice and accomplished researchers.

Several serial publications, journals, and technical report collections are worth examining from time to time. Some notable examples follow.

- Arctic Anthropology, published twice yearly by the University of Wisconsin Press, has traditionally emphasized archeology but that emphasis has ebbed.
- International Journal of American Linguistics, published quarterly under the auspices of the Linguistic Society of America and the American Anthropological Association, deals with technical aspects of Native American languages.
- Anthropological Papers of the University of Alaska, published at irregular intervals, is comprised of special issues (monographs) and collections of articles in all fields of arctic and subarctic anthropology.
- Etudes/Inuit/Studies, published twice yearly by the Inuksiutiit Katimajiit Association of Canada through Laval University, addresses Eskimo and Aleut anthropology.
- Alaska Department of Fish and Game, Division of Subsistence Technical Paper Series, is an agency series published at irregular intervals that describes the contemporary harvests and uses of wild resources in Alaska, generally on a case-study basis.
- Minerals Management Service (Department of the Interior) Social and Economic Studies Technical Report Series, of which this document is an example, is published at irregular intervals and includes case studies, thematic and

comparative studies, modeling and scenario studies, and conference proceedings related to Outer Continental Shelf oil and gas development impacts.

- The Alaska Department of Labor produces the Statistical Quarterly (quarterly) and Alaska Economic Trends (monthly), which provide employment and payroll statistics and thematic analyses of regional and statewide economic issues, respectively.
- The Institute of Social and Economic Research (ISER) (University of Alaska) publishes Alaska Review of Social and Economic Conditions, ISER Research Summaries, and ISER Fiscal Policy Papers throughout the year, which address business, employment, revenue and finance, housing, and special thematic issues. ISER also produces longer monographs and reports on these issues at irregular intervals.

None of these series is consistent in quality, but the referee'd (peer review) series generally show the highest editorial and technical quality. Other specialized series, such as *Arctic* and *Polar Record*, often are very significant and high-quality resources, but their applications in social science fields may be somewhat limited.

Several books provide especially good introductory ethnological treatments of subregional or regional cultures. For the North Slope, these include Chance (1990), Gubser (1965), Spencer (1959), and VanStone (1962). In the NANA region, Anderson et al. (1977), Burch (1975), Giddings (1961, 1967), and Smith (1966) are recommended. Ray (1975) and Hughes (1960, 1975) are pertinent for the Bering Straits region; Hughes (1960) is a classic citation for Saint Lawrence Island. For the Calista and Bristol Bay

regions, Fienup-Riordan (1983), Oswalt (1963, 1979, 1990), Lantis (1970), and VanStone (1967) should be consulted. Lantis (1970) also is useful for the Aleutian-Pribilof region, as are Laughlin (1980) and Jones (1976, 1980). Birket-Smith (1953) is a key citation for the Kodiak region.

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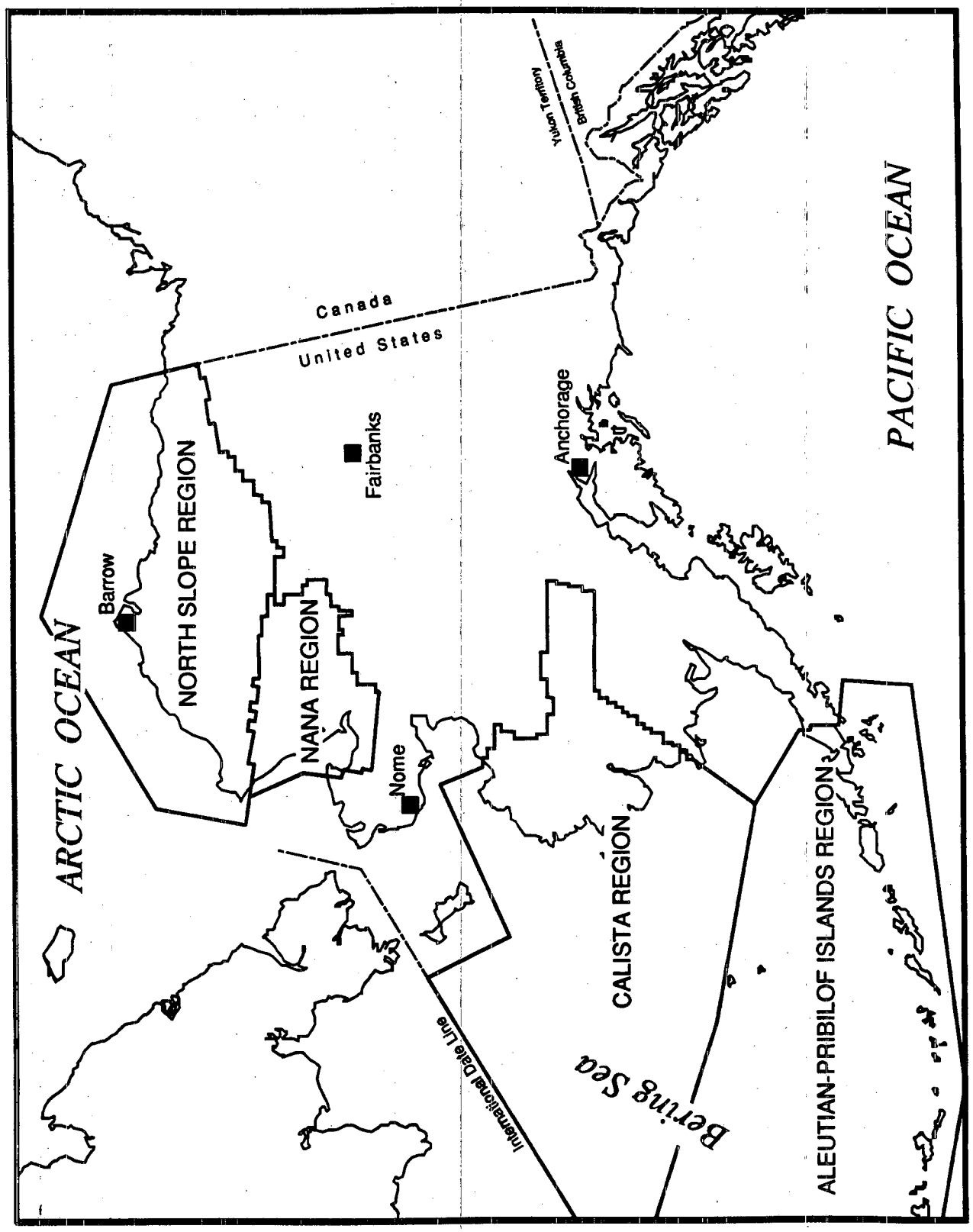
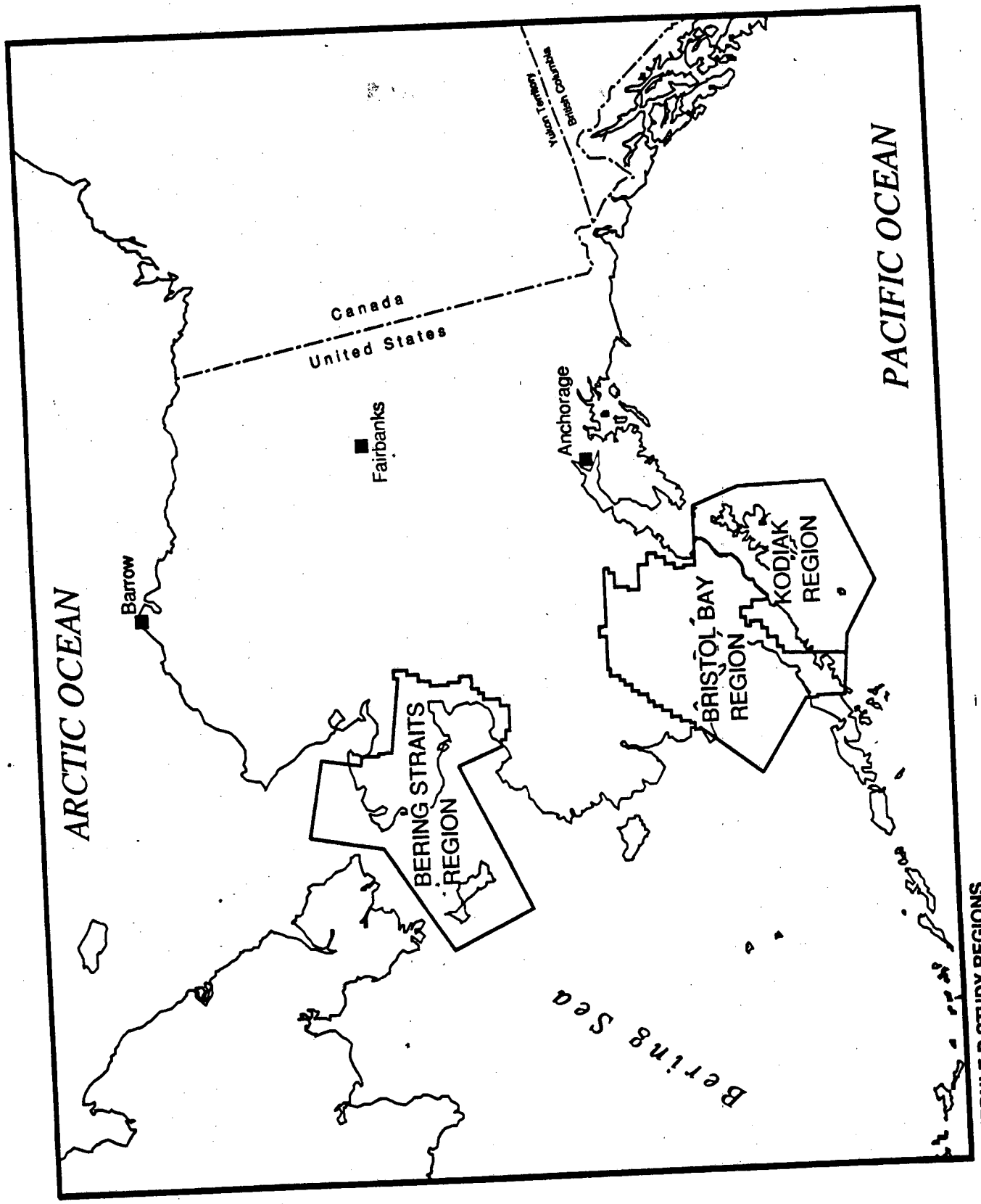
Map 1



SCHEDULE A STUDY REGIONS

Map 2



SCHEDULE B STUDY REGIONS

Schedule A Regions

The North Slope Region

Steven L. McNabb
with Michael Galginaitis

THE NORTH SLOPE REGION

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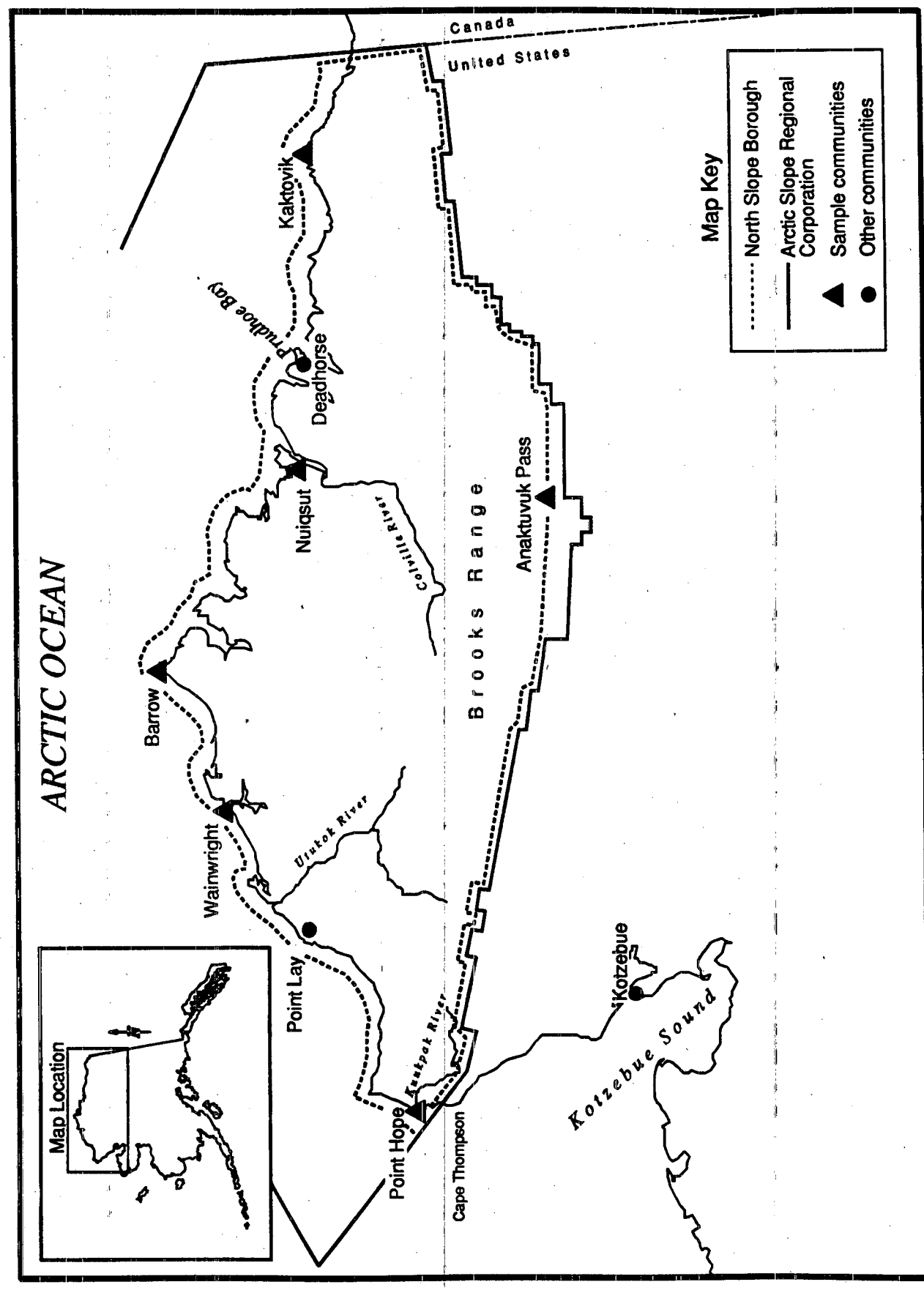

NORTH SLOPE REGION

SCHEDULE A COMMUNITIES

THE NORTH SLOPE REGION

PREFACE

The seven study regions of the Social Indicators study were divided into two groups based on concerns related to research design and efficiency of project administration. These groups are termed schedules and, as the term suggests, these groups represent not only sample portions but sampling agendas. Schedule A, of which the North Slope region is one part, also includes the Aleutian-Pribilof, Northwest Alaska Native Association (NANA), and Calista regions. Subsequent to the Exxon Valdez oil spill in 1989, the scope of the Social Indicators study was expanded and a new sample of Cook Inlet, Prince William Sound, and Kodiak area villages was developed. This group then comprised Schedule C. These terms and their meanings in the overall research design are introduced more fully in the Key Informant (KI) Summary Introduction and are explained fully in another project document entitled Social Indicators II: Research Methodology: Design, Sampling, Reliability, and Validity.

The KI Summary was first drafted during 1987 subsequent to the first Schedule A field season. It has been edited and revised during 1988, 1989, 1990, and 1991 to incorporate new data and discussions of changes over this interval. Field research was conducted by senior researchers in 1987 and 1989 in Schedule A communities, and in 1988 and 1989 in Schedule B communities.

All of the information reported here that is based on discussions with institutional officials and residents was collected during two field excursions, but secondary data from other documents and archives may correspond to other years. Because there always is a

lag between data collection and eventual publication, all technical documents are dated at the time they are produced. With minor exceptions, the collection of new information ceased at the end of 1990; this document can be considered accurate through 1990.

Abundant historic and ethnographic documentation on the North Slope exists, particularly in commissioned and Government technical reports. The size of that particular literature partly is a function of Government interest in North Slope oil resources, both onshore (Prudhoe Bay) and offshore. Nonetheless, the range of other citations in accessible, standard literature is very great. A brief introduction to the relevant literature will assist readers in selecting references that expand on issues raised in this chapter.

Classic references on the history, culture, and communities of the North Slope include Burch (1975), Chance (1966, 1990), Gubser (1965), Heinrich (1963), Jenness (1962), Murdoch (1892), Nelson (1969), Rasmussen (1952), Ray (1885), Sonnenfeld (1957), Spencer (1959), Stefansson (1919), and VanStone (1962). Murdoch and Ray are good historical sources, though they concentrate on material culture at the expense of other aspects of life. Stefansson and Rasmussen later correct that overemphasis with very good sociocultural material. Jenness emphasizes administrative and governance issues. Gubser and Sonnenfeld comprise dissertation projects of high quality, and Gubser's probably is one of the best dissertation products for any culture anywhere. Nelson, Spencer, and VanStone are classic ethnographies for Wainwright, Barrow, and Point Hope, respectively. Chance (1966) concentrates on Kaktovik (Barter Island), and his 1990 book reworks some of the earlier material, yielding an independent piece (not

merely an update) emphasizing the political-economic context of environment and resources in northern Alaska. Heinrich provides one of the first thorough kinship analyses for this area, but Burch's kinship analysis is more comprehensive and remains a key citation for kinship throughout northern Alaska. Spencer (1984a and b) and Hall (1984) are perhaps the best recent overviews and summaries that introduce readers to North Slope social, cultural, and historic issues.

In a narrower vein, other recommended citations are Brosted (1975) on Wainwright institutions; Brower (1980) on culture change; Burch (1970, 1980) on alliance and sociocultural and regional organization; Chance (1965) and Chance and Foster (1962) on personality and stress; Foulks (1972) on psychopathology; Guemple (1972) on alliance (in an edited volume); Luton (1986) on cultural continuity at Wainwright; Milan (1964) on acculturation at Wainwright; and Nelson, Mautner and Bane (1978) on subsistence at Anaktuvuk Pass. All of these resources provide good coverage of topics that are conceived in fairly specific terms; thus, they contrast with previous citations that by and large assume a more comprehensive perspective (with exceptions). The narrower focus, however, usually results in greater depth on key issues.

Commissioned studies and agency technical reports are exceedingly numerous for the North Slope, and those cited here and used in this chapter are only a selection of many options. Those cited here, however, are those that were best for the purposes of this KI Summary. These include Alaska Consultants, C.S. Courtnage and Stephen R. Braund and Associates (1984); Stephen R. Braund and Associates (1984); Galginaitis et al. (1984); Knapp and Nebesky (1983); Knapp, Colt and Henley (1986); Kruse et al.

(1983); McBeath (1981); Morehouse and Leask (1978); Patterson (1974); Smythe et al. (1985); Worl (1978); Worl and Smythe (1986); and Worl, Worl and Lonner (1981). The North Slope Borough (NSB) is responsible for many publications, some of which are contained in the References Cited section. These documents typically are the most narrow in focus, so their applications are relatively restricted compared to the classic citations--but their depth is correspondingly greater.

I. HISTORICAL CONTEXT

The "regions" of Alaska that are evident today--Alaska Native Claims Settlement Act (ANCSA) regions, census areas, boroughs--are products of the 20th century. For this reason, it is somewhat misleading to describe histories of modern regions as if those histories are discrete or independent. In general terms, a fairly similar chronicle of events distinguishes the major periods of social and historic change all across northern Alaska and, to a greater or lesser extent, the histories of northern Alaska coastal regions are parts of a single complex story. It is fair to say that Burch's periods (1984), though fitted specifically to the NANA region (Kotzebue Sound area), are appropriate for the North Slope. He identifies the key historic intervals as: Early Contact and Exploration (ca. 1816-1850), Period of Destruction (ca. 1850-1897), Period of Consolidation (1897-1960), and The Land Claims Period (ca. 1960-present). The titles of those periods focus attention on the key events that make the periods salient, and these periods are a point of departure for considering the history of the North Slope.

At the community level, important and fairly discrete historic intervals can be identified, such as exploration and contact, commercial whaling, fur trade and reindeer

herding, and community consolidation. The relevant periods often are easy to specify for individual communities. There are, however, significant overlaps among the periods (see for instance Luton 1986 on Wainwright) and this is of course only one of several possible categorizations.

At the regional level, such periodization is complicated by the lack of uniformity in the development of key institutions and their historic sequences. Because key events do not occur simultaneously in all regional communities, the chronology can be blurred. Worl and Smythe (1986:403-4) subdivide the significant intervals into four periods, mainly on the basis of changes to institutions (or institutional displacement): the (1) traditional, (2) early, (3) recent, and (4) modern periods. For the purposes of this report, the continuities that bridge the early (1900-1940) and recent (1940-1970) periods require more emphasis than the differences. Based on several considerations summarized here, we recognize three periods: (1) Early Contacts and Economic Innovation (1778-ca. 1899); (2) The Period of Consolidation (ca. 1899-1960); and (3) The Land Claims Period (ca. 1960-present). Burch's (1984) latter categories are retained and the first period includes early explorations, destruction and disease, and economic innovations introduced by the whaling and fur-trade industries. This arrangement is similar to the format used for the NANA region (see NANA Region KI Summary), but it emphasizes economic innovations during the first phase because they were somewhat more prominent on the North Slope.

I.A. Early Contacts and Economic Innovation

The period of earliest exploration and contact on the North Slope coincided with the introduction of European commercial goods on a large scale. These influences merely coincided and they do not imply cause (i.e., exploration per se did not introduce trade goods). The trade transactions that moved European goods to the North Slope were noncommercial exchanges that followed longstanding trade networks, probably originating in Siberia and funneled through traditional trade fairs farther to the south and only later at the Colville Delta.

The introduction of these goods had significant ramifications for local populations, because they set in motion resettlement and economic trends that permanently altered North Slope Iñupiaq[1] societies. For instance, the area east of the Killik River was settled by Iñupiat only after 1800, about the time the European goods appeared in volume, establishing North Slope Iñupiat as middlemen for the transfer of goods east to the Mackenzie Delta (see Hall 1984:339).

The first massive dislocations began before 1848. After 1848, commercial whaling triggered many dislocations as economic innovations reshaped domestic and institutional life for the Iñupiat.

Phase One: 1778-1848: At about the time of European contact, 6 of the 25 autonomous traditional Iñupiaq societies identified by Burch (1980) resided in the area now known as the North Slope. They are:[2]

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[1] Iñupiaq is a singular form that names the language, the people as a mass noun, or a single person. Iñupiat is the plural form. The difference corresponds to the use of "Greek" for a language, a mass noun (Greek society), or an individual, and "Greeks" for individuals (plural).

[2] The Iñupiaq terms used after this listing are modified somewhat from the original renderings to be more consistent with Alaska Native Language Institute orthographic conventions.

1. **Colville River (Kukpigmiut) society** (Nuiqsut and inland),
2. **Arctic Coastal Plain society** (Atqasuk and inland),
3. **Barrow (Kakligmiut) society** (Barrow),
4. **Northwest Coast (Silalinarmiut) society** (Wainwright/Point Lay),
5. **Utukok River (Utuqarmiut) society** (descendants at Wainwright, Kaktovik, Anaktuvuk Pass, Point Lay), and
6. **Point Hope (Tikrarmiut) society** (Point Hope).

Three early voyages of exploration made the first contacts with Iñupiat on the North Slope. Captain James Cook sailed past Point Lay as far as Icy Cape in 1778. Vasiliev, the same explorer who sighted the large group of Kangigmiut in Kotzebue Sound (see NANA Region KI Summary, Sec. I), reached Icy Cape in 1820. Crewmembers from the Beechey expedition reached the vicinity of modern Barrow in 1826 (Schneider and Libby 1979).

A fourth expedition--Kashevarov's--in 1838 is more important than the earlier ones in historical terms (cf. Burch 1980). Soon after 1800, trade goods made their way into coastal and interior northern Alaska in volumes sufficient to begin altering settlement patterns (see Hall 1984). Very soon after 1840, the Arctic Coastal Plain society was extinguished, probably by famine (Burch 1980:285). Survivors relocated to the Colville River, Barrow, and Northwest Coast areas. Groups in these other areas later would experience vast dislocations in turn that scattered survivors or emigrants and eradicated most traces of distinct socioterritorial units. In 1848, commercial whaling in the Arctic Ocean commenced.

The post-Thule technological revolution[3] on the North Slope may have begun somewhat earlier than in the NANA region immediately to the south (especially with respect to the interior portions of the NANA region) (cf. Hall 1984). The technological specialization evident before 1848, notably in riverine and coastal marine environment adaptations, may have had more emphatic influences on the development of socioterritorial units on the North Slope than in the NANA region (cf. Burch 1981:11). We combine the six North Slope groups in two descriptions because of important similarities between the pre-1840 spring and winter settlement and harvest patterns of the Arctic Coastal, Kuukpigmiut, and Utuqqagmiut groups on the one hand, and the remaining groups on the other.

Arctic Coastal, Kuukpigmiut, and Utuqqagmiut Settlement and Subsistence:

These groups dominated the interior zones of the North Slope during fall and winter. A mainstay of their fall and winter diets, caribou, was in the middle to upper reaches of the major rivers and tributaries in their respective areas. By winter, most Iñupiat had returned to small or medium-sized customary winter settlements, usually located along the major rivers. Caribou, fish, and small game sustained the populations during winter. However, some saved sea mammal products from their summer harvests, which augmented their larders. The Kuukpigmiut and Utuqqagmiut may have been more mobile in their search for food during winter than the Arctic Coastal populations.

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[3] The Thule period began around 1000 A.D. and involved increasing technological specialization and complexity, an emphasis on a maritime adaptation (focused on sea mammals) that nonetheless included adaptations to inland tundra and riverine environments, and "readaptation" using old technology. Thule culture spread from Alaska across Canada to Greenland and resulted in substantial technological (and linguistic) uniformity across this zone by the 1700's. The Thule revolution also coincided with expansion into inland areas (see above). Some technology associated with Eskimo culture, such as dog traction using sleds, appeared and spread during this phase.

Just before or at breakup, most families descended the rivers to the coast to attend the trade fair at Niglik[4] (except for the Utuqqagmiut), hunt seals and waterfowl, and fish. Some Arctic coastal families may have gone to Barter Island for more trading at this time. By freezeup, the populations were again en route to caribou hunting grounds in upriver locations (see Burch 1980; Spencer 1984b).

Kakligmiut, Silalinagmiut, and Tikigagmiut Settlement and Subsistence: In the fall, most Iñupiat would have regrouped at customary winter settlements, such as Utqiagvik, Nuvuk, Ataniq, Icy Cape, and Tikigaq. Some very small settlements along the coast in Silalinagmiut territory and along the Kuukpak River in Tikigagmiut territory existed. The named settlements were much larger, however. Winter subsistence harvests concentrated on seals. Caribou and fish were especially important during the fall in the vicinity of modern Wainwright and the Kuukpak River. Occasional caribou, small game, and fish might supplement the larders of families throughout the regions.

In spring (April-June), the emphasis shifted to whaling. After whaling, Kakligmiut often traded at Niglik. Some proceeded to the vicinity of Barter Island for additional exchanges. They returned to the vicinity of the winter settlements in late summer harvesting seals, waterfowl, and fish en route. In contrast, the Tikigagmiut hunted seals and fished at the close of whaling, and many ventured south to the Sisualik fair for trade opportunities in midsummer or traveled inland to hunt caribou. By freezeup, most had returned to the vicinity of their winter settlements. The Silalinagmiut hunted seals and walrus along the coast after whaling, and in late summer or early fall might venture

[4] Niglik is a trading site at the mouth of the Colville River. It was not a village, and its exact location is unknown.

inland to hunt caribou. Few Silalinagmiut apparently traded at traditional sites to the east (Niglik) or south (Sisualik) (Burch 1980; Spencer 1984a).

The fluctuation of the interior populations to the coast in summer and then back to their inland settlements in fall, combined with the crucial summer trade at Niglik in which they took part, gave rise to a distinction between nunamiut (inland peoples) and tagiumiut (coastal peoples) that preoccupied a generation of social scientists. Briefly, the argument asserts that a reciprocal balance based on exchange of inland products for marine products sustained the aboriginal economies of both groups (but perhaps the inland nunamiut to a greater degree). The significance of the distinction was probably overemphasized (cf. Burch 1975). The debate is an important artifact of modern scholarship. See Larson and Rainey (1948) and Spencer (1959) for source materials and Burch (1975) and Luton (1986) for evaluations of the hypothesis.

Phase Two: 1848-1899: During the second half of the 19th century, the Arctic coastal society essentially was terminated and other groups had absorbed the survivors. In addition, the portion of the North Slope east of the Killik River had become occupied by Iñupiat. The Kuukpigmiut Iñupiat had forcibly displaced the Dihai Gwichin Athabascans from their homelands in the vicinity of modern Anaktuvuk Pass and Wiseman around 1850 (Burch 1980:287). In 1848, the first whaler entered the Arctic Ocean, and by the following year numerous vessels whaled along the North Slope coast on a regular basis (Bockstoce 1977).

Two important trends intertwined during this period. First, the whaling industry rapidly penetrated the northwestern Arctic and Beaufort Sea areas and quickly

established a sustained presence in the area. Prices for whale (and even walrus) products remained high until about 1897. Efficiencies introduced by the use of steamers and the development of shore-based stations (in the 1880's) allowed the industry to thrive during this period.

Overwintering and shore-based operations also established markets for food supplied by local Iñupiat and diversified the local economy due to increased purchases of furs and ivory. Between 1889 and 1914 (the end of whaling as a viable industry), about 170 whalers wintered between Barrow and Herschel Island (Foote 1964). Spencer notes that at the turn of the century, most of the male Iñupiat at Barrow were ". . . directly or indirectly associated with the whaling industry" (1959:360). By the time the industry crashed, the fur trade (already significant by the 1880's) was in place as a substitute.

Second, the opportunities provided by the whaling (and later, fur and reindeer) industry co-occurred with catastrophic dislocations of Iñupiat. The Barrow area population declined steadily during the Phase Two period, but remained viable only because immigrants displaced from other locations were moving to the coast. The decline in caribou populations after the 1870's decimated many inland settlements due to famine (famines occurred across all of arctic Alaska in the late 1800's). The Kuukpigmiut virtually abandoned their territory in the 1880's, most emigrating to the Barrow area. Many Silalinagmiut were poisoned in 1876 and 1877 by drinking medicine found in a wrecked whaler, and the caribou crash drove most surviving families to the Utukok, Colville, and Barrow areas in the 1870's and 1880's. Famine, disease and emigration in the 1870's and 1880's left relatively few Iñupiat in the Tikigagmiut area.

The Utuqqagmiut territory received refugees from numerous areas during the 1870's and 1880's, but when the local caribou populations were nearly extinguished in the 1890's, even the Utuqqagmiut dispersed to the coast (Burch 1980:286-295).

Two social changes that preceded the famine and diseases of the late 19th century warrant attention: (1) the elaboration and expansion of "umialik" leadership roles, and (2) the development of numerous year-round coastal settlements whose primary function was commercial. Epidemics, famines, and profound social changes occurred at much the same time, but they were not necessarily related in a causal sense. Some important changes were under way prior to traumatic epidemics and famines, but there is no convincing evidence that this historical sequence depicts a chain reaction. Obviously, however, any demographic changes prior to epidemics or famines would influence the scope and distribution of their effects.

The umialik was an Iñupiaq male leader who exerted substantial authority in secular affairs by virtue of charisma, persuasive skill, wealth, or in some cases brute force. Although the customary and specific role of umialik was whaling captain, the role typically extended into other community and domestic matters. The role was largely preserved during this period due to the continuation of Iñupiaq whaling and the combining of the umialik function with broader commercial activities. Whaling captains in some cases became "captains of industry" as well and, because wealth was a tangible manifestation of leadership by the aboriginal definition, there was minimal distortion of the role as its new facet evolved (although see Luton 1986:Chap. 2:20-21 and Olson 1969:40 for opposing views).

Although commercial opportunity was established in the NANA region at a somewhat later date, the scale of trade was nowhere near as extensive (except in localized cases) until much later. The umialik institution also existed in the NANA region, but in a more restricted form.

The shore-based operations noted above easily assumed new roles as trading posts geared toward the fur trade. These stations provided the first employment for local Iñupiat in sufficient numbers to stabilize many populations and inhibit even worse catastrophes due to famine. By about 1890, 15 stations operated between Jabbertown (just south of Point Hope) and Barrow alone (see Luton 1986). The importance of the fur trade (and hence, these stations) increased steadily, first as a crucial substitute for the dwindling whale industry and later as the prices of pelts jumped in the 1920's and 1930's.

I.B. Period of Consolidation (1899-1960)

The first Presbyterian missionary came to Barrow in 1891 and in 1899, the church was formally established there. This event marks the beginning of the main period of consolidation. As in the NANA case, however, community consolidation was counterbalanced during the 30 years that open this period by two major activities: fur trapping and reindeer herding. Although these activities cemented the Iñupiat even closer to Western commercial institutions, successful trapping and herding was not compatible with permanent year-round residence in dense settlements.

Reindeer herds were established at Point Hope, Wainwright, and Barrow by 1904. The herd territories were immense: Point Hope herds might graze as far south as the vicinity of Kivalina, while the Barrow herds extended almost to modern Nuiqsut. Soon

after this time, the number of herds and animals increased, although the average size of a herd declined. A variety of factors, including a market crash, predation, new policies of open grazing, and escapement of reindeer, hastened the demise of herding on an important scale in the 1930's (Olson 1969).

It is useful to sketch out the political and ideological context of reindeer herding to clarify the motivations behind the introduction of reindeer. First, reindeer were introduced because of the very real problem of famine. In this sense, the intervention by the Federal Government was humanitarian. But second, reindeer herding fitted colonial policy and belief on the part of key Federal institutions, notably the Bureau of Education (to which Sheldon Jackson, the Presbyterian missionary and architect of their reindeer plan, was attached). William Harris, chief of the Bureau of Education between 1889 and 1906, said that: ". . . we have no higher calling in the world than to be missionaries of our idea to those people who have not yet reached the Anglo-Saxon frame of mind" (Ducker 1991:4). Jackson introduced reindeer in 1890, and this effort aimed toward two goals: (1) to stave off famines and (2) to train hunters to become pastoralists. Hence, this intervention was not famine relief alone. It was a social experiment.

The role of umialik was integrated within this new industry, although with some friction due to disparities between the external administrative and market system and the traditional social system (see Luton 1986). Olson (1969) argues that herding actually encouraged a sedentary residence pattern; also, herding may have acted together with other forces to erode the customary authority of the umialik (see also Luton 1986). The umialik role did decay somewhat during this period, but herding was and still is

impossible without considerable mobility on the part of the herder (in this sense, herding is not fully compatible with the sedentary pattern Olson notes). The only viable herd close to the North Slope (the NANA herd) today is up for sale, in part because hired herders are unwilling to spend weeks away from home tending the herd.

The imposition of external decisions by reindeer agents undoubtedly limited the role of the umialik, yet the umialik was never a sovereign with sole jurisdiction. The umialik was required to satisfy numerous demands from crew members to whom he might bear no kinship loyalty (and vice versa). In addition, the umialik could not operate without substantial backing, both real and political, from his own kin who might in turn exercise many competing demands on him (cf. Spencer 1959:177-182; VanStone 1962:38-58).

Any umialik worth his salt was expected to be a diplomat and negotiator who was subject to social conflicts with "outsiders" over whom he had no direct control under the indigenous social system (which is to say, control exerted mainly through kinship loyalties). The dispersion of adjacent local kin groups due to the famines and vast relocations of the late 19th century may be a more pertinent factor in the erosion of the umialik role and herding in general, because the recruitment of labor and other resources was undoubtedly hampered by the separation of the groups within which that recruitment customarily occurred.

Finally, role conflicts introduced by the market itself warrant a brief note. The wealth of a reindeer umialik as well as the value of in-kind payments to herders were determined by the market value of reindeer. This was an external and ungovernable

force by local standards. However, the "prices" of trade goods in traditional times were similarly unpredictable. Bartered goods had no "market" price or value, and exchange, though possibly balanced over the long term, might be wildly erratic from one instance to the next (cf. Burch 1970; see Clark 1970, 1976 for information on exchange between inland Iñupiat and Athabascans).

The fur trade also cushioned the Iñupiat from the effects of an abrupt crash in the whaling industry. As noted above, sharp increases in the prices of pelts in the 1920's and 1930's made trapping a lucrative occupation for Iñupiat. Both prices and game availability were greatest far to the east, notably in the Mackenzie Delta. By 1926, migration of northern Alaskan Iñupiat into the delta had reached such proportions that the Canadian Government took formal steps to terminate Eskimo inmigration (cf. Smith 1975).

By the 1930's, the effects of the worldwide depression were felt on the North Slope. Both reindeer herding and trapping went into sharp decline. Inasmuch as subsistence practices (as well as trapping and herding) had become more heavily capitalized in the preceding decades to increase efficiency through mobility, the loss of access to cash was sorely felt (Spencer 1959:361; see also Luton 1986). Thus some constraints on sedentary residence were lifted, at least in part. Capitalization requirements had cemented the Iñupiat to markets and, as herding and trapping fell off, settlements grew (as the demographic data illustrate; see Sec. II. **Population and Demography** below and NANA Region KI Summary Sec. II).

The emergence of new institutions offered village-based services as well as economic opportunities that encouraged permanent residence. By the 1920's, Otto Greist, the Barrow Presbyterian minister, was establishing churches in other North Slope communities. The Mother's Club, a social and civic fellowship that exerted far more influence on the North Slope than in the NANA region, also was established. Schools were proliferating, and the churches, Mother's Clubs, and teachers acted together to prohibit delinquency and truancy. The churches, teachers, and Mother's Clubs also were informal liaisons with the Federal authorities (revenue agents).

Soon after 1939, formal village councils were established in key communities (Milan 1964; Smythe et al. 1985). De facto councils operated as early as 1904 in some villages (Wainwright among the sample communities; see Luton 1986). The Indian Reorganization Act (IRA) of 1934 was amended in 1936 to apply to Alaskan Natives and, during the subsequent 5 years, the Department of the Interior undertook an aggressive campaign to organize Alaskan villages under IRA constitutions and business charters (cf. Case 1984:11). Hence, the impetus for development of local councils had both internal and external elements.

In the years following World War II, the pace of consolidation accelerated. The rapid development of new health facilities through the Public Health Service, jurisprudence, the local National Guard units (also coordinated through the Presbyterian Church; see Smythe et al. 1985), employment opportunities, and reformulated patterns of ethnic relations are documented in the main ethnographic and historical documents, including Chance (1960, 1965); Gubser (1965); Jenness (1962); Milan (1964); Sonnenfeld

(1957); Spencer (1959); VanStone (1962); and others. By 1959, both Anaktuvuk and Barrow had incorporated as cities, the first North Slope communities to establish the municipal apparatus that would soon gain ascendancy over the older tribal councils. Except for the "new" villages of Atqasuk and Nuiqsut that postdate ANCSA and the re-establishment of Point Lay just before ANCSA,[5] the configuration of communities on the North Slope was now consolidated and stable by the 1960's.

I.C. Land Claims Period (1960-present)

Two events probably triggered the political mobilization that introduced the land claims period. They coincided very closely in time: the Barrow "Duck-In" and the Project Chariot proposal in 1960-1961. The Barrow Duck-In was a public protest against the regulation of migratory bird hunting and was precipitated by the arrest of a Barrow hunter who took a duck out of season (see Worl and Smythe 1986:47, 387). Project Chariot was a plan to use a nuclear device to blast a deepwater port near Cape Thompson. Cape Thompson is visible on a clear day from the historic Jabbertown site south of Point Hope, where a whaling station thrived for decades prior to the close of the whaling period.

Iñupiat in the NANA region as well as the North Slope were outraged by these events, and popular support for aggressive protection of Native lands and resources began to crystallize. The Duck-In may have been the watershed event that spurred the creation of the first interregional Native advocacy organization in the north, Iñupiat Paitot (People's Heritage) (see Worl and Smythe 1986:47).

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[5]Although Point Lay was a recognized community during the 20th century, all residents had outmigrated in the 1960's. The community was repopulated through immigration.

This organization was a coalition of Iñupiat from North Slope and NANA villages that in 1966 partitioned itself into two regional bodies, the NANA and the Arctic Slope Native Association. Both groups comprised the institutional frameworks that would later develop into the regional ANCSA corporations, NANA Corporation, and Arctic Slope Regional Corporation (ASRC).

The passage of ANCSA at the end of 1971 culminated these earlier organizational efforts and created village corporations and ASRC, the regional corporation. The corporations are nominal economic organizations but wield real political power and exercise some political responsibilities by fiat and community consensus, as is true for many ANCSA corporations. The regional IRA council, Iñupiat Community of the Arctic Slope (ICAS), was founded and held its first election in 1971 (but full regional representation was not forthcoming until 1979). The ICAS is a nonprofit Native corporation principally organized to administer service programs. These developments were quickly followed by the creation of the NSB in 1972. The NSB is a regional municipal government organized under the terms of Alaska State laws. The specific historic, social, and political contexts that shaped these organizations in their early years are described in Smythe et al. (1985) and Worl and Smythe (1986).

Relationships among these North Slope organizations generally were cooperative during the first years after their establishment, although some conflicts soon surfaced. According to key informants, their philosophies and operating goals were still emerging. Their social commitments and orientations were freshly transplanted from the stressful

but exhilarating land battles milieu that threatened Native unity and forced political compromise.

Specific obligations and programs were unclear. Joint authority, overlapping jurisdictions, and murky distinctions between State and Federal responsibilities tended to enmesh the organizations rather than separate them (see Luton 1986 for a description of how organizational features fuse and coalesce in a single community, in this case Wainwright). Moreover, memberships on different governing bodies overlapped. For example, during the first years of operation, ICAS and ASRC essentially had the same board of directors and would turn from one order of business to the other in a matter of moments (Smythe et al. 1985:256). This, of course, followed the IRA model of the pre-ANCSA period in which IRA councils were vested with executive, legislative, judicial, and financial (corporate) authority in numerous spheres (subject to restrictions, such as the applicability of Public Law (P.L.) 280 which limits the adjudicative authority of councils; cf. Case (1984:169-170, 375-378)).

By 1973, these key institutions began to diverge from their cooperative path and assert their unique and separate prerogatives. Although ASRC was the one Native organization to vote against ANCSA, it vigorously applied act privileges immediately after passage. In 1973, the NSB requested transfer of municipal powers from all North Slope communities, a move that spurred opposition from the local villages (mainly Barrow). The question of community status and influence was only a portion of the controversy. Apparently, many residents were concerned about the ability of a fledgling NSB to carry out a full range of administrative and service functions on a regional level

(cf. Morehouse et al. 1984; Smythe et al. 1985:211). Powers were eventually transferred, but not before Barrow altered its municipal status to first-class city to safeguard some privileges and stall the transfer of others.

By 1980, the de facto link between ASRC and ICAS was severed due to the replacement of several governing authority members shared by both entities. New ICAS governing authority members were comparatively outspoken and assertive on the topics of Native rights, resource protection, welfare and social services, and unresolved land claims. The ICAS funds for contract services from the Bureau of Indian Affairs (BIA) (under P.L. 93-638) were retroceded in 1982 (see Sec. III.A. **Governance** for a discussion of the retrocession). The programmatic functions of the organization now are largely (but perhaps temporarily) defunct.

By 1979 with the dramatic increase of oil revenues that enhanced the NSB's ability to sell bonds, the NSB had gained clear ascendancy over the other local and regional institutions. The subsequent 8 years have produced "intense conflicts" (Smythe et al. 1985:301) as the borough has consolidated its powers. During this brief period, the first half represents unparalleled growth of facilities, services, jobs, and research. The second half represents the decline of major spending programs and a change in emphasis from large capital-intensive projects to smaller, more labor-intensive programs with relatively greater employment payoffs for borough residents.

Based on Smythe et al. (1985), Luton (1985), and key informants, this period can be summarized in terms of key NSB events and associated incidents as follows (these events are not in chronological order):

- consolidation of NSB regulatory powers
- development and later decline of the Capital Improvement Program (CIP)
- death of NSB founder, Eben Hopson
- second meeting of the Inuit Circumpolar Conference at Nuuk, Greenland
- Joint Federal/State Beaufort Sea Oil and Gas Lease Sale in 1979
- completion and later abandonment of the Mid-Beaufort Coastal Management Program
- ongoing development of the NSB Comprehensive Plan and land use regulations
- completion of National Petroleum Reserve-Alaska studies
- consolidation of NSB health and social services
- creation of the Alaska Eskimo Whaling Commission (AEWC) and completion of the AEWC bowhead management plan with NSB support
- cessation of bond sales (as of October 1986). The NSB now is seeking to derive revenues from bond sales again (1990, 1991).
- substitution of general and operating funds for bond revenues, and initiation of unbonded revenue projects on private property
- development of Resident Employment and Living Improvements (RELI) program through NSB Mayor's Office (unbonded revenues)

II. POPULATION AND DEMOGRAPHY

Here we describe total village populations and the populations of communities in the vicinity of modern villages from which the modern villages were composed. We also

assess cross-sectional characteristics of these populations. The accuracy of historical estimates of population sizes cannot be confirmed.

II.A. Overall Population and Net Changes Through Time

Table 1 reproduces population estimates and historic census populations for the communities in our sample. The counts are not exactly synchronized to specified dates; the 1880 figures are 1882 counts for some villages or areas. Populations also are grouped on the basis of proximity to our sample communities. The 1880 (1882) estimate for Wainwright includes the nearby Point Belcher settlement. The 20th century figures are censuses, hence more accurate than estimates. The depletion of the interior population, subsequent regrouping at the coast, and growth of village populations after the demise of reindeer herding and trapping are clearly evident in these data.

Table 2 illustrates population sizes, Native ethnic composition, and changes between 1970 and 1980. Table 3 lists village populations on an annual basis beginning with 1980. The erratic shifts likely are due to flaws in the data-collection process as well as to valid changes in village populations on a yearly basis. It is impossible to disentangle the origins of the recorded changes, because there are few good sources on the singular factors that may be responsible: natural increase, emigration, and recording artifacts.

Key informants offered no confident or unanimous conclusions to explain post-1982 population fluctuations (see Table 3), although two NSB officials speculated that the non-Native population may have declined somewhat in the wake of CIP and other program reductions. The 1989 population counts derived from draft results of the 1989

Table 1

POPULATION ESTIMATES, 1880-1960
(20-Year Intervals)

Community	1880	1900	1920	1940	1960	Change (%) Since 1880
Interior/Anaktuvuk Pass	1,000+	300	0	50	96[a]	- 90
Barrow[b]	280	314	426	391	1,314	+369
Kaktovik					120	na
Point Hope	276	[c]	141	257	324	+ 17
Wainwright	130	[c]	137	392	253	+ 95

Source: Hall 1984; Luton 1986; Spencer 1984; U.S. Census (1900 ff)

[a] Census figures show 66 at Anaktuvuk Pass proper.
[b] This includes both Nuvuk and Utqiagvik until 1960.
[c] 1900 census figures are unusually flawed.

Table 2

NORTH SLOPE SAMPLE AREA VILLAGES: POPULATIONS, ETHNICITY, AND POPULATION CHANGE, 1970-1980

Village	1970 Total	1970 Native	1980 Total	1980 Native	Change (%) Since 1970
Anaktuvuk Pass	99	98%	203	94%	+105
Barrow	2,104	91%	2,207	78%	+ 5
Kaktovik	123	88%	165	90%	+ 34
Nuiqsut			208	87%	na
Point Hope	386	96%	464	94%	+ 20
Wainwright	315	97%	405	92%	+ 29

Source: U.S. Department of Commerce, Bureau of the Census 1982; Alaska Department of Community and Regional Affairs (ADCRA) 1974.

Table 3

YEARLY POPULATION ESTIMATES, 1980-1986 AND 1989

Village	1980	1981	1982	1983	1984	1985[a]	1986	1989[b]	Change (%) Since 1980
Anaktuvuk Pass	203	235	250	228	232	278	na	264	+30
Barrow	2,207	2,539	2,882	2,938	2,930	3,075	3,037	3,223	+46
Kaktovik	165	201	214	203	208	220	211	na	na
Nuiqsut	208	270	287	324	309	332	na	314	+51
Point Hope	464	531	544	570	580	570	570	591	+27
Wainwright	405	410	436	483	514	507	na	502	+24

Source: North Slope Borough Planning Department 1986 (based on ADCRA-approved estimates).

[a] According to the 1985 NSB Survey cited in Worl and Smythe (1986), the Barrow population was 3,016.
[b] NSB (1989).

NSB census undoubtedly are more accurate than the 1981-1986 estimates, and the net change from 1980 to 1989 probably represents an accurate depiction of actual population change. Differences in census and population estimate methodologies across the 10-year interval probably explain some of the fluctuations.

II.B. Age and Gender[6] Profiles

The median age of the North Slope population is steadily increasing. The increase is not consistent across all sample villages. Inmigration, specifically the return of adults, contributes to the "aging" population in rural Alaska. We have observational information and some survey data to confirm this phenomenon.

In Barrow, for example, 29 households that had left sometime between 1978 and 1980 returned between 1980 and 1985. The 29 represent 3.1 percent of all households in 1985 and 5.3 percent of all inmigrating households between 1980 and 1985 (NSB Survey 1985). These figures understate the amount of return migration inasmuch as they only identify households that were present in 1978, absent in 1980, and present in 1985.

Table 4a subclassifies age and gender for 1970 and 1980 for the sample communities. Cross-sectional subclassifications for 1980 have unknown reliability, so age figures are presented for Natives only. In 1986, males comprised 52.5 percent of the Barrow and Point Hope populations (NSB Planning Department 1986).

Table 4b provides a comparable subclassification for 1989; but data are not available for one sample community (Kaktovik, which was added to the sample in 1988), and age characteristics are expressed as averages rather than medians. A comparison across both tables supports the general observation that the populations are aging, despite the fact that those age characteristics are not depicted in the same way.

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[6] At the request of the Minerals Management Service, the word "gender" is used in place of "sex," the more common label in demography. This convention will be used in all KI summaries.

Table 4a

AGE AND GENDER FIGURES, NORTH SLOPE COMMUNITIES
1970 and 1980

Village	1970				1980[a]			
	Male	%	Female	%	Male	%	Female	%
Anaktuvuk Pass	56	(57)	43	(43)	96	(50)	95	(50)
median age	22.5		14.3		21.2			
Barrow	1,095	(52)	1,009	(48)	892	(52)	828	(48)
median age	17.8		16.5		22.0			
Kaktovik	73	(59)	50	(41)	82	(55)	66	(45)
median age	19.0		22.9		22.3			
Nuiqsut	na		na		92	(51)	89	(49)
median age					21.1			
Point Hope	217	(56)	169	(44)	230	(53)	204	(47)
median age	16.0		15.8		19.9			
Wainwright	165	(52)	150	(48)	208	(56)	164	(44)
median age	17.6		21.6		21.5			

Source: Alaska Department of Community and Regional Affairs 1974; U.S. Department of Commerce, Bureau of the Census 1982.

[a] 1980 figures are for Natives only. Note that median ages for 1980 are presented only for males and females together, whereas for 1970 the median ages are listed for males and females separately.

Table 4b

1989 AGE AND GENDER FIGURES, NORTH SLOPE COMMUNITIES

Village	Male	Percent	Female	Percent
Anaktuvuk Pass	132	50.8	128	49.2
average age	25.3		23.6	
Barrow	1,548	52.6	1,453	48.5
average age	26.4		25.9	
Nuiqsut	162	53.6	140	46.4
average age	25.3		24.7	
Point Hope	297	53.6	257	46.4
average age	23.2		24.6	
Wainwright	271	55.1	221	44.9
average age	29.1		23.7	

Source: North Slope Borough Census of Population and Economy 1989.

III. COMMUNITY ORGANIZATION AND ECONOMY

Here we discuss governance, commerce and industry, health and other social services, societies, and voluntary associations, and interpretations of the origins and directions of important sociopolitical change on the North Slope. The review will be brief inasmuch as North Slope institutions and economy have been amply described in numerous documents over the last 10 years. (See Alaska Consultants 1983a, 1983b; Knapp and Nebesky 1983; Kruse et al. 1981, 1983; Luton 1986; McBeath 1981;

Morehouse and Leask 1978; Smythe and Worl 1985; Worl 1978a, 1978b; Worl, Smythe et al. 1986; Worl, Worl and Lonner 1981).

III.A. Governance

<u>IRA Governments</u>: The provisions of the 1934 IRA were extended to Alaska in 1936 and, by 1939, charters for North Slope councils were being established. Traditional councils operated without formal IRA charter before this time, for instance as early as 1904 at Wainwright (Luton 1986). Unlike municipal governments or corporations, the IRA governments are Native organizations to which the Federal Government has unique trust responsibilities. Although it is unlikely that ANCSA has stripped IRA's of any self-government authority in legal terms (note that this is a matter of interpretation that is still unresolved), in practical terms ANCSA inhibits numerous IRA functions. For instance, for the first time in Alaska history, Native land ownership is detached from Native self-government. Note also that ANCSA corporations are recognized as "tribes" under P.L. 93-638 regulations; hence, they can contract for tribal services (see Case 1984:447).

In their new institutional niche, the IRA's had relatively few institutional programs to administer prior to the passage of several acts in the mid 1970s, including the Indian Child Welfare Act, the Indian Education Act, and the Indian Self-Determination and Education Assistance Act. The last mentioned, in particular, allowed IRA's access to Federal grants and contracts from which they could provide direct services to villagers. The Johnson-O'Malley, Indian Education, Self-Determination, and Indian Child Welfare acts counterbalance the general trend, aggressively encouraged by

the Federal executive branch, to terminate Indian education and social services at the national level. Note that general assistance through the BIA was nearly terminated in 1982, and all BIA day schools had been transferred to State control by 1985 (see Case 1984:202-224).

On the North Slope, however, these programs were generally few in number (compared to other rural regions in Alaska) since the NSB gained rapid ascendancy over other bodies after 1972. This ascendancy included precedents in health, education, and social services provisions that were not easily displaced.

The ICAS, created in 1971, is both the region's nonprofit corporation and a regional IRA. Its parent organization was the Arctic Slope Native Association, which dissolved in 1971. Between 1971 and 1979, ICAS and the ASRC (the new for-profit entity) operated jointly with only minimal formal division of agendas. After 1979, full representation by all villages in the region was established for the ICAS, and its most active period of advocacy and services provisions began.

In 1982, the BIA charged ICAS with misuse of funds for services contracted under the provisions of P.L. 93-638 (authorized earlier by the Snyder Act in 1921; cf. Case 1984:216-217). Specifically, the BIA alleged that ICAS expended funds beyond those authorized and for purposes beyond the scope of the services contracts. Because these funds were BIA discretionary social-service-contract funds that were not clearly subject to obligatory Federal support of Indian services, the retrocession was largely procedural (cf. Case 1984:246-251 for a review of pertinent regulations and acts and their legal interpretations). On the other hand, ICAS alleges that the retrocession was initiated by

Federal authorities in retaliation for the ICAS Civil Action No. A81-019, which named the U.S. Government (and others) in a suit that claimed ICAS sovereignty on North Slope lands and adjacent sea ice (see Sec. V.C. **Ethnicity and Tribalism**).

The ICAS voluntarily retroceded the funds, hoping that internal reorganization and improved accountability would satisfy BIA authorities who would then resume funding; however, funding has not resumed to date (see Smythe et al. 1985:270-271 for further details on the retrocession). The context for the retrocession undoubtedly is broader than this. Note that the Federal executive branch has been attempting to restrict or terminate funding for Native education and welfare programs throughout the 1980's, and this policy nearly resulted in the termination of Alaskan Native general assistance programs in 1982 (see above, and Case 1984:221-222).

After the retrocession of BIA funds in 1982, ICAS continued its strong advocacy role asserting sovereignty over North Slope lands and seeking to develop aggressive protections for Natives and their resources. At this time, however, ICAS operates without a stable administrative budget and no budget for services. The aggressive pro-sovereignty ICAS position has alienated representatives of some other institutions in and beyond the borough, yet the NSB and ASRC have aided ICAS with financial and political support in the recent past. This indicates that Iñupiaq control is a key goal that may cut through controversy and yield unity, despite frictions among institutions (cf. Kruse et al. 1983:268-269).

Village traditional and IRA councils have been revived in some villages since the ICAS retrocession of BIA funds, notably in Point Hope, Nuiqsut, and Anaktuvuk Pass.

Point Hope and Point Lay had recognized IRA councils prior to the formation of ICAS, and they did not cede (formally or informally) powers to ICAS; the other villages had traditional councils. We should emphasize that the regional dominance of ICAS largely was a product of inactivity among village councils, which deferred to ICAS as a matter of efficiency and convenience. Because the village councils now have a greater incentive to exercise council privileges, several already have done so by reactivating and reorganizing local councils that have been dormant for over a decade.

Municipal City Governments: Barrow was the first North Slope community to form a municipal government, and the other communities (except Atqasuk and Nuiqsut) had followed suit by about the time of ANCSA. Whereas brief municipal profiles are provided below, all of these governments transferred the bulk of all city and education functions to the NSB in 1973. The NSB, through its taxing authority, recently has provided jobs and programs on a massive scale to each community.

Anaktuvuk Pass was incorporated in 1957 as a second-class city and conducts its municipal affairs under a mayoral form of government. There is no sales tax, and all programs are supported with State grants and entitlements. The city is responsible for fire-protection services.

Barrow was incorporated in 1959 as a fourth-class city but chose first-class status in 1973. Barrow operated under a city-manager form of government until late 1987, when it instituted a mayoral form of government. There is a 3-percent sales tax to supplement grants and entitlements that underwrite municipal services and city operation. Most powers were transferred to the NSB in 1973-1974. Barrow maintains

an agreement with the NSB for shared fire-protection services, however. The city administers a recreation center but otherwise, major utility, planning, and transportation services are handled by the NSB.

Kaktovik was incorporated in 1971 as a second-class city. No sales taxes are levied to provide revenues for city services. Municipal governance is organized under a mayoral form of government. Kakvotik provides only minimal services, deferring to the NSB for public-safety and utilities administration.

Nuiqsut was incorporated in 1975 as a second-class city. A 3-percent sales tax is levied to offset costs of operating the city government and providing services. Nuiqsut operates under a mayoral form of government and is responsible for refuse collection and fire protection and exercises port authority.

Point Hope was incorporated in 1966 as a second-class city. The city operates under a mayoral form of government, levies a 3-percent sales tax to supplement grants and entitlements, and manages local parks and recreation activities.

Wainwright is a second-class city that was incorporated in 1962. Wainwright municipal affairs are conducted under a mayoral form of government. The city levies a 3-percent sales tax, which underwrites a portion of municipal government operation; the remainder is supported by (mainly) State grants and entitlements. Wainwright is responsible for fire-protection services.

North Slope Borough: The NSB, a home-rule borough chartered under Alaska municipal authority, was founded in 1972. The NSB exercises areawide powers in the following categories: heating, water, airport management, libraries, transportation,

North Slope residents. The main emphasis is on the creation of local employment opportunities.

The NSB programs now are subject to careful review processes that eliminate projects unless they show a clear contribution to the essential health and safety needs of residents, according to key informants. This review process was only recently introduced; hence, there is no programmatic history that would permit an assessment of how these needs are being met by selected projects. It is clear, however, that capital improvement as well as service programs are being preserved; the NSB alcohol treatment program, for instance, expanded over the late 1989-1990 period) (see Sec. V.C. **Health, Education, and Social Services**).

From the point of view of key informants within the borough, the creation of the RELI programs, coupled with new, stringent review processes, are crucial measures designed to provide essential services and employment while the fiscal structure of the borough is shifted away from a reliance on bond revenues and during a period of depressed oil prices. Funds devoted to the CIP program have dropped from a high of $302.2 million in Fiscal Year (FY) 1983 to $75 million in FY 1986. The NSB projections indicate anticipated capital expenditures of as low as $11 million in FY 1991 and $9 million in FY 1998.

The NSB cash position as of June 30, 1986, was $979,597,614, of which $178,686,750 (or 18.2%) was devoted to debt-service reserves (see NSB Planning Department 1986; NSB 1987b). These factors, combined with bonded indebtedness in excess of $1.2 billion and a Standard and Poor bond rating of BBB+, ("lower medium

quality"), discourage new bond issues as well as spending at historic levels (see Knapp, Colt and Henley 1986:IV-4 to IV-10). These factors may not portend difficulties in repaying bonded debt, but they do act together to restrain spending. In mid-1989, the borough advertised additional bond sales and, as the document goes to print, it is too early to determine how new issues will affect borough finances.

Second, the planning and regulatory apparatus of the borough now is turning towards compromise and negotiation as instruments of development and resource protection and moving away from the unilateral and assertive style that often typified borough operations in earlier years. This trend was observable even as early as 1982 (see Kruse et al. 1983:259-260).

Key informants suggest that this shift is motivated first by the belief among key leaders that it will cultivate an atmosphere in which NSB officials can extract more political and economic benefits from external authorities, which in turn may improve the fiscal and political status of the borough in State and national circles. Because the current fiscal crisis did not become apparent until long after 1982 when this shift was first evident, it is unlikely that financial concerns played a determinate role.

III.B. Commerce and Industry

Leaving aside the petroleum industry at Prudhoe and associated sites and looking only at the North Slope communities, it is apparent that government dominates the North Slope economy. As much as 89 percent of the nonpetroleum workforce is employed by Federal, State or local government (cf. Knapp and Nebesky 1983:E8-E14). Between 1970 and 1980, the number of government employees increased by 833 percent,

and the share of all government employment assumed by the NSB increased from 0 percent to about 79 percent. Table 5 illustrates the shifts in government employment over this period and includes 1989 figures for comparison. Between 1980 and 1989, government employment increased by 19 percent, and all growth was due to increases in local government employment. In fact, both Federal and State employment dropped precipitously to 32 percent of the 1980 figure for Federal employment, and to 44 percent of the 1980 total in the State category. These changes underscore two facts: (1) the tendency for State and Federal revenues to be trimmed and withdrawn after about 1980 and (2) growth of the NSB municipal apparatus (which is supported in part by State and Federal agency beliefs that the NSB will assume services that are withdrawn).

Table 5

NORTH SLOPE GOVERNMENT EMPLOYMENT, 1970-1980 AND 1989

Year	Federal	State	Local	Total
1970	128		-----37------[a]	165
1971	168		----114------[a]	282
1972	173	142	19	334
1973	171	118	106	395
1974	283	86	272	641
1975	265	93	432	790
1976	239	79	573	892
1977	240	71	766	1,078
1978	256	77	1,140	1,473
1979	248	67	1,183	1,498
1980	249	45	1,081	1,375
1989	79	20	1,532	1,631

Source: Knapp and Nebesky 1983:E14; North Slope Borough Census of Population and Economy 1989.

[a] State and local figures are aggregated for 1970 and 1971 in source documents.

Table 6 depicts the distribution of occupations of employed workers in sample villages based on 1980 census data. A comparison of Tables 5 and 6 reveals the immense proportion of NSB employment relative to most industrial categories.

Table 6

OCCUPATIONS OF EMPLOYED WORKERS, NORTH SLOPE VILLAGES, 1980

Industry	Anaktuvuk	Barrow	Kaktovik	Nuiqsut	Pt. Hope	Wain-wright
Agriculture/forestry/mining	0	16	7	0	5	4
Construction	0	238	20	11	29	43
Nondurable manufacturing	6	4	0	2	0	0
Durable manufacturing	0	5	0	2	0	2
Transportation	3	40	4	3	2	7
Communications & utilities	0	69	4	3	10	7
Wholesale trade	3	3	0	3	0	13
Retail trade	8	62	0	0	4	10
F.I.R.E.[a]	0	39	3	2	10	4
Business & repair services	3	22	0	3	2	0
Entertainment & recreation	3	53	6	0	2	3
Health services	4	43	5	3	5	3
Education services	6	179	16	26	69	37
Other professional svcs.	0	26	2	0	6	2
Public administration	9	200	18	7	14	6
TOTAL	45	999	85	65	158	141

Source: Knapp and Nebesky 1983:E8.

[a] Finance, insurance, and real estate.

Table 7 compares figures for the total workforce with figures for NSB, village corporation, and city government employment that were current for 1986 and 1989. Key informants suggest that the 1986 data underestimate both the workforce and employment.

Table 7

TOTAL NORTH SLOPE WORK FORCE AND SELECTED EMPLOYERS, 1986 AND 1989

Village	Total Work[a] Force		Workforce for Major Employers[b]					
			NSB		City		Corp.	
	1986	1989	1986	1989	1986	1989	1986	1989
Anaktuvuk	138	134	35	85	1	1	3	16
Barrow	1,347	1,547	635	871	17	39	155	131
Kaktovik	119	na	29	na	1	na	7	na
Nuiqsut	123	152	32	93	2	4	14	22
Point Hope	212	233	41	115	4	10	28	21
Wainwright	206	242	58	113	10	8	14	73

Source: NSB Planning Department 1986; NSB 1989.

[a] The "workforce" includes eligible workers who are not working.
[b] "NSB" represents North Slope Borough; "City" represents the local municipal government; "Corp." designates the village ANCSA corporation.

Throughout most of rural Alaska, retail prices are high due to high transportation costs (and limited backhaul volumes to offset those costs), long and erratic lines of

supply, and limited warehousing facilities. North Slope village prices forcefully illustrate this fact. A comparison of retail price changes for a selected goods and commodities is presented in Table 8a.[7] A market-basket survey was conducted in 1987 and then replicated during the 1989 field season, so we present the percentage of price changes over the 2-year interval. The proportional changes show that although the cost of a few items has stayed the same, price changes tend to be volatile.

A comparison of the actual prices[8] for similar market baskets of goods among the villages indicates that Point Hope villagers pay much less than residents of other communities. Even wary comparative shoppers in Barrow pay 14 percent more than Point Hope shoppers for similar goods. Barrow shoppers who frequent only one store in Barrow can pay 44 percent more than Point Hope shoppers for the same goods. Nuiqsut shoppers must pay 44 percent more than Point Hope shoppers. Wainwright and Anaktuvuk prices fall between the highs and lows. When individual items are compared, Barrow residents can purchase 9 of the 20 commodities at lower prices than similar commodities in any of the other five communities. The residents of the villages of Point Hope and Wainwright can beat Barrow prices on seven and three commodities, respectively.

Barrow's size, location as a transportation hub, storage facilities, purchasing power, and internal competition surely push prices down. Yet Barrow's rapid growth as

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[7] Anaktuvuk Pass is not tabulated, because that site was not resampled during 1989.

[8] Note that this discussion centers on prices, not proportional changes in prices, which are illustrated in the tables. The discussion of costs summarizes our observations of the raw data (which are not disclosed here) from which the changes over 2 years were calculated.

Table 8a

RETAIL PRICE CHANGES (PERCENTAGE), STUDY AREA COMMUNITIES, 1987 AND 1989[a]

Commodity	Barrow 1	Barrow 2	Barrow 3[a]	Kaktovik	Nuiqsut	Point Hope	Wain-wright
10 lb flour	+9.4	0.0	+7.6	na	+24.6	+49.3	-2.0
12 oz evap milk	0.0	+5.3	-7.4	na	na	-10	0.0
1 lb onions	+90.9	na	+98.5	na	na	+25.3	na
48 oz oil	+12	+90.4	+4.1	na	na	+32.5	0.0
6-pack cola	-2.6	+28.6	+4.7	+42.9	+13.3	-9.1	0.0
10 lb sugar	-2.9	na	-14.2	-38.5	-3.6	+44.5	-21.3
18 oz bread	+2.9	-22.3	+86.8	na	0.0	-22.9	na
1 lb bacon	+14.3	+8.3	+33.6	na	na	na	+21.4
3 lb coffee	-13.8	+9.3	-23	na	+4.2	-2.5	-7.9
1 lb butter	-15.1	0.0	-17.7	+6.7	-8.5	na	-5.1
12 qt powd. milk	-8	-4.1	-15.9	na	na	+49	-1.6
22 oz punch	+1.4	na	-12.8	na	+7.6	+14.8	-14.2
Pampers, 12 pk	+4.7	na	+80	-11.5	+12.4	-19.5	+31.4
Coleman lantern		+6.8	na	na	na	na	na
2-D batteries	+10.6	na	+25.1	+50.8	na	+10.6	+22.6
1 gal Blazo	na	na	na	na	na	na	+81.2
Ax handle	+3.2	na	na	na	na	na	+8.1
1 gal gas	na	na	na	na	-7.7	+96.4	+76.6
1 qt motor oil	na	na	na	na	na	-6.1	-34.7

Source: field notes.

[a] The numbers represent different stores in Barrow.
[b] Kaktovik was sampled in 1988, and so the comparison interval is 1 year for this study site.

an administrative boomtown also fuels inflation. So, overall prices for comparative shoppers are close to similar prices in Wainwright rather than in Point Hope. Point Hope and Wainwright benefit from some of the factors that benefit Barrow (purchasing power, storage facilities) while not suffering as much from inflation. Goods shipped to Point Hope are often routed through Kotzebue, a factor that lowers transportation costs and results in savings for consumers. Anaktuvuk, Kaktovik, and Nuiqsut are small and located long distances from Barrow. In addition, Anaktuvuk cannot receive freight by ship and barge. Yet both Anaktuvuk and Kaktovik, which are the most isolated communities, can boast lower prices on some items compared to one or more Barrow stores.

The price fluctuations over 2 years cannot be explained systematically, and even store owners or managers are uncertain of the reasons for sometimes immense decreases and increases. Two factors responsible for shifts include wholesale volume and brand accessibility. Local retailers who encounter cash-flow, transportation, or warehouse-space problems may not be able to buy in volumes sufficient to bring prices down to prevailing levels, which leads to sporadic and unpredictable price increases. Similarly, retailers may evade those problems and then have the capacity to sell at lower prices, which also leads to sporadic and unpredictable price decreases. Retailers also note that rural consumers often have strong brand loyalties, which the retailers seek to satisfy. But when preferred brands are not accessible over the short term, other products will be purchased at higher or lower costs. Our observations also show that retailers seek to clear shelves and attract buyers with temporary loss leaders (products sold at or even

below cost). Loss leaders also will produce sporadic and unpredictable price changes, especially because they often are teamed with price increases on other items, so that the retailer can be compensated for the loss. These factors probably are the leading causes of the fluctuations evident in the price comparisons, and it is our intuition that these fluctuations are more severe in rural areas due to the limited choices consumers have. In other words, if there are more goods on the shelves, there are more ways for fluctuations to be absorbed across the board. In rural Alaska, there are fewer goods on the shelves.

In contrast to the retail prices paid for commodities on the North Slope, our data show that labor costs are uniform (due to the wage standardization achieved through NSB employment). Table 8b lists customary hourly wages for a sample of occupation and skill areas for 1987.

Table 8b

HOURLY WAGE LABOR RATE COMPARISONS
STUDY AREA COMMUNITIES, 1987

Labor Category	Anaktuvuk	Barrow	Nuiqsut	Pt. Hope	Wainwright
Net hanging	na	na	na	na	na
Rough carpentry	25.88	25.88	25.88	25.88	25.88
Electrical repair	27.78	27.78	27.78	27.78	27.78
Engine repair	23.42	23.42	23.42	23.42	23.42
Welding	24.72	24.72	24.72	24.72	24.72
Plumbing	[a]	26.17	[a]	[a]	[a]

Source: Key-informant field notes.

[a] These communities have incomplete or nonexistent sewer and water utilities; however, KI's indicated that any work likely would be compensated at NSB rates.

Research conducted during 1989 confirmed that labor costs remain uniform throughout the NSB. Key informants noted that some jobs could pay more and others might pay less, but the borough standards (provided above) were widely accepted as "customary" rates. These rates are unencumbered rates paid as wages to staff. The benefit package comprises about 20 percent (hence, the carpenter would be paid at a rate of $31.08 per hour, of which $25.88 would appear on the paycheck before taxes).

The ASRC is an key economic institution on the North Slope, although ASRC and its subsidiaries (Houston Contracting Company-Alaska, Arctic Slope Consulting Engineers, Iñupiat Consolidated Enterprises, and Tundra Tours, Inc.) chiefly are engaged in operations outside North Slope communities. Earnings have dropped off over the last year in step with the statewide downturn. Some ASRC investments in partnerships and joint ventures showed earnings well in excess of 1985 figures (ASRC 1986:22).

The ASRC currently is engaged in efforts to consolidate its operations through reorganization, limited layoffs, and discharging liabilities. Between 1985 and 1986, the ASRC managed to increase its working capital by accepting a net decrease in assets and discharging twice that figure in liabilities. The corporation used cash and short-term investments to pay off debts, thus improving their capital position despite their cash-poor status.

During the 1987 field season, key informants reported that Ukpeagvik Iñupiat Corporation (UIC) and Tikigaq Corporation (Barrow and Point Hope, respectively) also were consolidating their operations. The measures taken to carry out the consolidations do not please all shareholders, and disputes over fundamental organizational changes

within UIC were partly responsible for the resignations of three incumbent board members at the UIC elections in February 1987. Some key informants have suggested that the resignations were due to rivalries among kin-based factions (hence, the resignations reveal kin solidarity rather than fundamental political disagreements per se), and that the consolidations themselves merely continue practices set in motion during the previous administration. Other key informants reject this interpretation, however, and claim that kin-based factionalism has declined on the North Slope and cannot be offered as an important factor in the recent UIC resignations. Tikigaq Corporation filed for reorganization under Chapter 11 after the 1987 field season, and reorganization was completed after the 1989 season.

III.C. Health, Education, and Social Services

The majority of health, education, and social services are provided by the NSB. There are four distinct entities responsible for these services. Two are within the borough structure: the NSB School District, and the NSB Department of Health and Social Services. Others are the Division of Family and Youth Services (Alaska Department of Health and Social Services) and the Indian Health Service Hospital (Public Health Service). The structure of the NSB is organized such that the school board (and hence North Slope Borough School District operations) is under the direct jurisdiction of the NSB Assembly, while the departments of Administration and Finance, Law, Planning and Community Services, and other departments are subordinate to the Mayor's Office. Lines of authority are somewhat different for each set of operations (NSB 1987b).

The structural characteristics of service provisions have another important dimension, the requirement for coordination and cooperation across organizational boundaries. For example, the NSB had to obtain Barrow city land to build a new alcoholism-treatment center. There was virtual consensus among institutional leaders and residents that such a facility should be built. However, the proposal triggered two reactions among Barrow City Council members. First, they feared that another land sale would further erode the essential resource base of the city. Second, the vulnerable position of the NSB (which "needs a favor") prompted the city to criticize matters like the location and specific design of the facility, in essence, laying out their "terms" for a settlement by requesting a reappraisal of the entire project. In turn, the NSB responded by warning the city of the dire financial consequences of delaying a decision. These negotiations spanned about a year (see City of Barrow Ordinance 86-16) but were successfully concluded, and the facility was nearing completion at the close of the 1989 field season (May 1989).

Formal interactions among North Slope institutions concerning health, education, and social services apparently are common and do not consistently draw participants into protracted and delicate negotiations. At the February 1987 City Council meeting, three out of nine proposed ordinances or resolutions pertained to health, education, or service needs: (1) an ordinance that would establish a scholarship fund (Ordinance 86-15), (2) the ordinance to sell land to the NSB noted above, and (3) a resolution encouraging the State Legislature to repeal laws allowing possession of marijuana (Resolution 87-9).

This discussion has focused on the institutional and structural dimensions of services in North Slope villages. The history of NSB services is well documented in Worl and Smythe (1986:355-368). Brief intra- and interregional comparisons of health-service-use data are provided in the KI Summary Introduction. As of 1991, one important area of Native service reform that regional bodies are investigating with the assistance of the Alaska Federation of Natives (AFN) is the "National Indian Legislative Agenda," advocated by Senator Daniel Inouye (D-Hawaii), which seeks to prepare objectives on a broad front for submission to Congress. Potential areas for reform include child welfare, education, tribalism, and economic assistance. Development of an agenda is only now beginning in preparation for finalization in 1992, so no concrete plans are now available for review (see AFN 1991:5-8).

Table 9 depicts basic services and facilities in our sample communities. Regional services and facilities are fairly homogeneous here as in many rural regions due to uniform State funding patterns for most services. Although funding for capital improvements is not uniform, most villages eventually obtain a minimal (and uniform) set of facilities. The factor that encourages even greater uniformity on the North Slope is the NSB, because Borough funding also tends to smooth out variance among communities. Barrow stands out in this comparison because it is an administrative hub with disproportionate funding for some services and a greater demand on facilities' infrastructure.

Table 9

SERVICES AND FACILITIES, STUDY AREA COMMUNITIES, 1987 AND 1989

Service/Facility	Anaktuvuk	Barrow	Kaktovik	Nuiqsut	Pt. Hope	Wain-wright
Health facility	clinic	hospital	clinic	clinic	clinic	clinic
Sewer system	no	yes[a]	no	no	no	no
Family counseling	no	yes	no	no	no	no
Police	NSB[b]	State	NSB	NSB	NSB	NSB
Jail	yes	yes	yes	yes	yes	yes
Schools	K-12	K-12[c]	K-12	K-12	K-12	K-12
Gymnasium	one[d]	two[d]	one[d]	one[d]	one[d]	one[d]

Source: Field notes.

[a] This serves only part of the community.
[b] NSB Department of Public Safety.
[c] The NSB opened an unaccredited postsecondary center in 1986.
[d] The school gym is available to the public.

III.D. Sodalities and Associations

The roles of many voluntary associations on the North Slope are relatively specialized in comparison with similar associations elsewhere in rural Alaska, but in some cases they are more diverse. Diverse in this sense implies the sociological concept of "polarity." Polarized organizations exercise numerous objectives that are not unified under a single integrative aim or concept, and the term carries no pejorative meaning.

In addition, North Slope associations may exert considerable social power through persuasion, wealth, or the capacity to mobilize popular support or shape public opinion. Following is a partial listing of North Slope associations:

- Search and Rescue
- Mother's Club
- Women's Club (Wainwright)
- recreation committees
- dance troupes
- Chambers of Commerce
- National Guard
- Olgoonik Motor Mushers (Wainwright)
- village whaling captains' associations
- Parental Advisory Committees
- Elders' Conferences
- Church Women's Association (Presbyterian)
- Filipino-American Society
- sports leagues (e.g., Barrow Women's Basketball)

Two examples will be discussed that illustrate the substantial community impacts that sodalities may have that cross-cut sodality boundaries and influence formal institutions.

In 1977, the Barrow Whaling Captains' Association initiated the creation of the AEWC with NSB and ASRC support. Other North Slope, NANA, and Bering Straits

whaling captains' associations soon became involved. The AEWC is noteworthy, because it represents Native interests on a national scale and represents Eskimo whalers to the International Whaling Commission virtually without oversight by State authorities (cf. Kruse et al. 1983:269). The AEWC now is an important de facto management institution involved in monitoring and protecting bowhead populations. Although the AEWC is institutionalized by dint of practice, it is not a formal agency of governance, secular special interests, or commerce. (Note, however, that the organization is formal and enters into formal agreements with other agencies or institutions that may exercise those responsibilities or interests. For instance, the AEWC has engaged in cooperative agreements and contracted services with the NSB and the National Oceanic and Atmospheric Administration since at least 1984. The AEWC incorporated in 1981. The point we draw here is that the AEWC has management responsibilities, but it is not an instrument of governance.) The primary parent organization was a voluntary association, and this example underscores the regional, statewide, and even international ramifications of voluntary action on the North Slope.

Another important example is the Mother's Club. Due in part to the growth of individual disposal incomes on the North Slope after 1979, the revenues available to the Mother's Clubs through bingo and other fund-raising activities have grown enormously. Above we noted that Mother's Clubs were allied with the Presbyterian Church and other dominant institutions from a very early period (see Sec. I.B. **Period of Consolidation**). Over the last decade, this organization has reasserted itself after many years of dormancy. The Barrow Mother's Club was instrumental in establishing the Arctic

Women in Crisis (AWIC) shelter soon after 1979 and continues to provide donations that supplement the shelter's NSB funding. In 1981, the Club gave donations that exceeded $120,000 to individuals and families in need, the AEWC, AWIC, the Barrow Whaling Captains' Association, the Presbyterian Church, the American Cancer Society, and other causes (Smythe et al. 1985:282-283). The club also underwrites the costs of selected members to attend the AFN Convention. Thus the Mother's Club has evolved into a humanitarian and charitable aid organization as well as a political and social action group.

III.E. The Main Trends of Sociopolitical Change

The two most important trends that warrant discussion have been described in previous sections. These trends will be briefly summarized here. A third that has become apparent only after the close of field research will be described at the end of this subsection.

Institutional Consolidation and Retrenchment: We have reported how a plunge in oil prices and the consequent reduction in North Slope oil production have prompted the NSB, ASRC, and some village corporations to shed liabilities, strengthen their capital status, eliminate some staff and program components, and turn to revenue substitutes while still seeking to meet essential policy and programmatic needs. The drop in petroleum revenues and State and Federal funding levels will continue, despite intermittent abatement, for the foreseeable future. There are of course webs of interrelations among these circumstances: decreased petroleum production introduces direct impacts on the NSB and indirect impacts on the borough and other institutions

through declines in State funding and reduced (and for the moment, terminated) bond sales.

The consolidation takes several forms, and the consolidation itself is by no means uniform. In part, the consolidation involves postponements that delay projected activities and channel current revenues into reserves that can be used in the future. The NSB intends to create new operations and management-reserve accounts and already possesses a permanent fund that represents about 20 percent of its cash balance (NSB 1987b). Areawide projects in erosion control, lands acquisition, road upgrades, energy conservation, and telecommunications have been deferred. The City of Barrow is now considering a new ordinance that would create a Barrow permanent fund (City of Barrow, Ordinance 87-1 1987).

The NSB health and social services programs are secure in comparison. According to the new review criteria promulgated by the Mayor's Office at the end of 1986, programs essential for the safety and health of residents will be immune to cuts. It is too early to determine how these criteria may or may not apply to the full range of services, but key informant and other evidence indicates that consolidation and retrenchment may not extend to these services over the short term. In a previous discussion, the NSB plan to establish a new alcoholism treatment facility was revealed, and neither the capital project nor the operating budget have been deferred.

Institutional Moderation:. North Slope institutions have modified their political bargaining stances, as evident in the withdrawal of the Mid-Beaufort Coastal Management Plan and a shift toward compromise in a comprehensive plan that

emphasizes consistency, clear intent, and tolerance of exceptions to land management ordinances under specified conditions.

An example of this trend, which was evident as early as 1982 (Kruse et al. 1983:259-263), occurred most recently in the moderate, procompromise position assumed by the NSB with the NANA corporation over boundary disputes in the Red Dog mine-site area. In contrast, it was NANA that assumed an aggressive, unilateral position in the case. Although mild friction may arise in some bargaining positions (for instance, with the City of Barrow over a protracted set of negotiations for a land sale necessary for the construction of the alcoholism treatment facility), the bargaining styles of most institutions now are shifting from their historic patterns. Compromise becomes an even more essential ingredient in agreements as the downside of the boom-bust cycle deepens.

Enfranchisement of Youth in the Corporate Structure: The problem of ANCSA shareholder status for Alaska Natives born after the enrollment deadline (1971) set by Congress has been chronic and painful for all ANCSA corporations. The ANCSA and its amendments have never systematically addressed the issue, but corporations are able to promulgate their own policies on the matter. In 1990, the ASRC became the first corporation to extend shareholder status and shares to Natives born after that date. This is viewed as an important measure to solidify the corporation, ensure its persistence, and unify shareholders. It is unclear what the ramifications of this policy will be at this time, but it opens the door to wider corporate participation and increasingly diverse interest

groups. Future studies undoubtedly will need to monitor corporate changes that may result from this policy.

IV. HOUSEHOLD ORGANIZATION AND KINSHIP

IV.A. Kinship Organization

Bilateral extended families were the ideal expressions of social organization among North Slope Iñupiat before this century, but nuclear households (Burch's "domestic families") now may be the dominant and central units (cf. Luton 1986; Smythe 1987). By "ideal expression," we mean that these extended families were optimal units of organization: residential patterns, leadership, and economic assistance were centered on extended families. Residence after marriage was likely to be patrilocal or virilocal (close to the father's or husband's home) in traditional times, but bilocal postnuptial residence now is characteristic. Historically, Burch's "local families" may have tended towards endogamy (Spencer 1959:75) and constituted demes (cf. Burch 1984); hence, members of these extended or "local" families tended to marry others within their group. This is no longer true. Kin groups also were bound to each other by expectations of collective responsibility on a broad front (Spencer 1959, 1984a, 1984b; Burch 1975; Heinrich 1963), but these collective responsibilities have eroded significantly over the last century. This erosion is evident in the waning of intense loyalties to blood kin at the expense of all other ties, the decline in distrust and animosity toward non-kin, and ebbing patterns of social control that traditionally placed the responsibility for discipline of kindred in the kin group (even in the case of major infractions) to avoid blood feuds that occurred when non-kin meddled in the affairs of another group. Today, North Slope Iñupiat do

not interact only or mainly with blood relations and formal institutions deal with misdemeanors and felonies (although kin groups may intercede to prevent formal interventions, and charges of nepotism do occasionally arise in leadership and employment contexts). This erosion is well documented (see Spencer 1959, 1984a; Burch 1975).

The rigidity of kinship loyalties and unilateral principles of organization may have been overdrawn in the earlier literature, though. Burch (1975, 1980) and Spencer (mainly 1979, 1984a, and 1984b) have proposed a structured kinship universe in which nearly all substantive social action is predicated on kinship principles. Others (for instance Guemple 1972; Heinrich 1963; see also Luton 1986 for a review of these materials) have adopted a less literal interpretation and propose an opportunistic system that is guided by circumstance and preference. Guemple explicitly uses the term "transaction" (in the interactionist vein) to describe the subtle and pragmatic negotiations that establish the contents of a kinship tie. Classic examples, such as the creation of "fictive" (imaginary) kinship connections to namesake relations and partnerships, show how Iñupiat can use the resources of the existing system creatively to evade its restrictions.

This less rigid formulation seems to account for current kinship patterns, but it is unclear to what extent the current system reflects the past system and to what extent it reflects the disintegration of that past system (i.e., was the traditional system less rigid than some say, or is it less rigid now because of significant changes?). Kinship relationships continue to underlie the greatest share of domestic activities ranging from

mutual aid and household assistance to task group recruitment for customary hunting and fishing pursuits. They also may impinge on formal institutional processes (through hiring and staffing preferences, among other things), providing structures upon which alliances can be built. Though these kinship relationships are permanent, they are not permanently mobilized (cf. Heinrich 1963; Luton 1986). Practicality and immediate needs may provide much of the original impetus for social actions, which can then be justified (creatively) on the grounds of kinship. Similarly, because the current system provides some flexibility, decisions can be made on the basis of kinship (as in hiring and staffing) and that justification can be denied.

IV.B. Household Structures and Economic Functions

The identification of extended kindreds who are functionally bound by ongoing exchanges of capital, food, and labor is difficult because these activities vary in intensity, by season, and in response to numerous situational factors (such as changes in income). Moreover, kindreds are ego-oriented (each ego's kindred varies from every other kindred). A single observation is inadequate to capture either the operation or the membership of such extended groups since their essential features are revealed only over time. The dynamics of extended group membership are further complicated by the opportunistic nature of kinship justifications--the functional boundaries expand and contract as kinship links are activated or "demobilized." All social situations are affected by these dynamics--subsistence-resource harvesting and redistributions, employment decisions, recreation, public ceremonies, and so on.

The superficial details of how kinship links are "mobilized" are subtle enough to hide the actual operation of these links to the casual observer, but they are widely evident. For example, in one instance observed during field research, a resident of one village who had no close blood relations in that village learned that a sister was coming to visit on business. He contacted her and other kin in their home town and arranged for her to bring sea mammal products when she visited. In return, she was sent home with other subsistence foods. This business trip accomplished another goal: kinship links were mobilized to support an exchange of foods. In another case, a resident of Point Hope married into a village in another region. He talked to close kin at Point Hope and his wife's relatives in his new home and arranged a major exchange of bowhead maktak (from Point Hope) for caribou, which required several air-taxi-charter trips between the villages. Here, latent ties were mobilized on a large scale. In these cases we see the short-term operation of social structures (extended kin groups) that are not situated in specific locations (like villages or households) and do not operate explicitly on a day-to-day basis.

The structures of households are more straightforward in comparison. Yet household compositions also are subject to change, sometimes gradual but often abrupt, in response to factors like employment and income status of members or candidates for membership (normally but not exclusively kin). Other factors include health and disability among members and potential members, convenience, changing seasonal opportunities and obligations, and the civic and ceremonial calendar.

Impoverished households may consolidate their limited human capital by combining into a larger, single household. Small conjugal households may expand as elderly relatives inherit able-bodied nephews or nieces on a temporary basis or, conversely, poor newlyweds may inherit senior kin who possess pensions or other stable incomes. Nalukataq (the annual whaling festival), important civic affairs or meetings, and church conferences cause temporary influxes of nonresidents who are typically absorbed by households with whom the visitors share kinship links or customary exchange relationships. Luton (1986) and Smythe (1987) and Worl and Smythe (1986) provide numerous examples of situations that alter household configurations and discuss compositions of one-, two-, three-, four-, and even five-generation households. (See Fienup-Riordan (1983) and Jorgensen and Maxwell (1984) for descriptions pertinent to western Alaska.)

Subsistence hunting, fishing, and gathering probably is the most common context for interhousehold activity today, and this fact illustrates continuities to the traditional period that, although eroded, still persist. Cooperation is essential for harvest success overall, notably in arduous labor and capital-intensive activities like whaling. Kindreds must be mobilized to provide financial and social support, and recruitment typically cuts across numerous households consisting of both consanguines and affines. Harvesting activities are increasingly expensive: estimated annual costs for equipment alone for the Chukchi coast villages approach $4,000, fuel and ammunition add another $2,200, and annual repair bills are estimated at $3,800 per active hunting household (Stephen R. Braund and Associates 1984:9).

Aside from the profound sentiments and sense of kin solidarity that are sustained by these activities, it is clear that the harvests also yield crucial food resources. In view of the rapid changes in Iñupiaq diets, which increasingly contain complex carbohydrates and sugar, subsistence protein may be the most important component of many residents' nutritional profile. Based on work completed about a decade ago, the percentages of households who receive at least half their food from subsistence harvests are as follows for sample villages: Anaktuvuk, 57 percent; Barrow, 41 percent; Nuiqsut, 70 percent; Point Hope, 46 percent; Wainwright, 42 percent (Institute of Social and Economic Research [ISER] 1977). The ISER survey also showed that large proportions of the populations received foods as gifts, underscoring the points made earlier.

The increasing availability of housing on the North Slope undoubtedly has been responsible in some degree for declining household sizes, but cooperative economic activity cuts across households and sustains extended family relationships that continue to function despite physical isolation in different houses. The residential household has assumed great importance over the last two decades, but these largely nuclear structures are not the sole agents of domestic economic activity.

Table 10 describes changes in household size between 1970 and 1989, illustrating the decline in household size that accompanied the largest housing and capital improvements programs.

Table 10

AVERAGE HOUSEHOLD SIZE, NORTH SLOPE VILLAGES, 1970-1989

Village	1970	1980	1983	1989
Anaktuvuk Pass	4.7	4.1	na	3.6
Barrow[a]	5.6	3.6	3.4	3.2
Kaktovik	4.7	4.3	4.1	na
Nuiqsut	na	4.2	na	3.9
Point Hope	5.8	4.8	na	4.1
Wainwright	5.9	4.4	4.1	3.9

Sources: ADCRA 1974; U.S. Census 1970, 1980; Smythe et al. 1985:192; NSB 1989. Figures are rounded.

[a] Barrow 1985 average household size is 3.2.

IV.C. Socialization

Twenty-five years ago, a cross-cultural psychologist familiar with Alaska Iñupiat wrote:

> Children are taught to share with, and not to outdistance, their peers. Even today, Eskimo children are often warned not to be different from others and not to be 'above' their fellows if they want to be well-liked and live a long life. . . . Eskimo child-rearing practices emphasize the desirability and safety of being like the other children--many examples were given by villagers of children who tried to 'act better' than others and who consequently caused trouble and friction. Such children invited ridicule and ostracism from others of their own age and disapproval from adults. (Parker 1962:115-116.)

More recent research has also indicated a high subjective valuation that is associated with mutual assistance, helping behaviors, and friendliness among young Eskimos (cf. Kleinfeld 1978:88).

These are common themes in socialization discussions in the main body of Iñupiaq ethnological literature. Iñupiaq socialization practices are said by some to create a delicate, fragile dependency on the group and powerful needs for peer affirmation (see Chance 1965, 1969; Chance and Foster 1962; Foulks 1972; and Lantis 1980 for discussions of Iñupiaq personality, socialization, and interpersonal adjustment). The Iñupiaq child is expected to resolve the dilemma of balancing interpersonal vulnerability against cheerful cooperation by developing strong discipline and self control.

These statements do not imply that any consensus has yet emerged about the psychosocial ramifications of Iñupiaq socialization, and the authors cited here take different positions. Lantis (1980) provides an excellent, short summary of major positions that deal with the issues of group dependence and vulnerability. She contrasts good-humored teasing (a classic Iñupiaq instructional and disciplinary technique) with ridicule and notes that Iñupiaq youth may be devastated by the latter, because it is seen to convey hostility. She explores the dilemma of autonomy (which Iñupiat strive to achieve and sustain) and dependence on the group (which may be encouraged by Iñupiaq socialization practices). She also distinguishes between competition and rivalry, because friendly rivalry occurs often among Iñupiaq youth and adults; but overt competition may be viewed as aggression. This difference underlies a key Iñupiaq tenet: excel but do not boast. Lantis' (1980) research indicates that the findings of different

scientists may say more about their assumptions and definitions than about empirical facts. Lantis concludes that Iñupiaq child rearing "has not generally fostered strong individual decision-making, self assurance and sense of identity apart from the group except in some technical skills" (Lantis 1980:11).

Iñupiaq socialization, values, and world view have proven to be fertile ground for disagreement and multiple interpretation because analysts are able to draw different conclusions from what may be the same data and the underlying data are tenuous, subjective, and nonuniform among the various studies. (This situation parallels the debate among arctic scholars over the essential "social psychology" of Iñupiat; cf. Burch 1980 as opposed to Briggs 1970.) For example, some lay observers have noted that discipline and self control are missing among Iñupiaq adolescents (cf. Brower 1980:113). The disparity between the statements by professionals such as Lantis and observations of laymen (summarized in Brower 1980) is explainable. Observed social behavior, as an interaction among observer, observed, and the observation is subject to interpretive "plasticity" in the Iñupiaq social order (and elsewhere). This means that behavioral norms may have permanent, even invariable definitions. Practice, on the other hand, often diverges from the norm.

We do not imply that norms are often or customarily disregarded in day-to-day affairs. Rather, in real practice multiple, sometimes alternative or contradictory, norms are played off against one another as the circumstances that validate those norms are established, manipulated, and redefined in day-to-day affairs. The flexibility already

noted in patterns of kinship, recruitment, and mutual assistance illustrates this generalization.

In addition, the seeking of peer acceptance validates a persuasive set of peer norms and practices. Any strong adolescent peer clique is resistant to external social controls unless those controls operate by the principles that motivate the clique. Because conformity is inspired by traditional socialization and is sustained within the peer group, it is difficult for children to stand apart from their peers either in behavior or achievement without risk. The development of ways to validate high achievement has challenged educators on the North Slope for some years, according to key informants. Finley (1983), for instance, argues that high achievement aspirations may in fact be unrealistic and counterproductive given the fact that few opportunities requiring advanced achievement exist in North Slope communities. According to Finley, this makes it difficult to encourage high grades and college, because persons without high grades and college can obtain good jobs and respectable positions on the North Slope. In addition, "achievers" may work themselves out of the community if jobs requiring their skills are available only out of town. Some key informants suggest that this dilemma is a temporary state of affairs, because in time, competition for good jobs will increase and job requirements will become more demanding.

"Institutionalized socialization" (that is, formal education) and a prolonged period of adolescence are critical changes in North Slope socialization that have not yet been fully internalized and resolved by educators, parents, and the children. The upcoming generation of students will be the offspring of Iñupiat who received a major share of

their education in North Slope communities in institutions governed (if only nominally) by Iñupiat. The solutions to the dilemmas may evolve at that time.

V. IDEOLOGY

The coverage of religion, world view and values, and ethnicity is abbreviated because these issues have been introduced above. The emphasis here will be on summaries that highlight the ideological dimensions of previous coverage. It will be useful for the reader to consult the coverage of ideology in other KI summaries (especially the NANA region summary in this case) due to similarities among key issues.

V.A. Religion

The main denominations that operate in North Slope communities are Presbyterian, Episcopal, Assembly of God, and Catholic. A Methodist minister has begun to offer services at Wainwright, and Baha'i practitioners sporadically proselytize on a minor scale. Baptists hold services (mostly attended by non-Iñupiat) in Wainwright and Barrow.

The influence of the Presbyterian Church in early years already has been emphasized. This influence has continued through the recent past but now is declining, perhaps as institutions of governance and more specialized secular groups gain prominence. Even as late as 1942 when the Alaska Territorial Guard was being organized, the Presbyterian minister was the chief liaison between military authorities and the local population. The minister was in fact the commander of the Barrow unit (Smythe et al. 1985:292).

Smythe et al. (1985:296) indicate that the membership of the Presbyterian Church began to decline in the late 1950's when the Assembly of God Church was established. This decline was not due to conversions of Presbyterians, however. Rather, the two events merely coincided. Key informant discussions in 1987 confirm their observations. The current influence of the Presbyterian Church is difficult to gauge, because the direct intervention of the church in secular, institutional affairs has ceased. It still is enmeshed in numerous civic affairs and maintains a body of well-placed and influential adherents, as the regular donations by the Mother's Club suggest (see Sec. III.D.).

Membership in the Assembly of God Church increased in the late 1950's and 1960's. By ironic circumstance, the prime mover during the early years was Reverend Alvin Capener, the Assembly of God missionary who would later move to Saint Paul Island and meet with his first and only failure to establish a viable congregation (cf. Jones 1976). The Assembly of God Church has or has had significant congregations at Point Hope, Wainwright, Barrow, Nuiqsut, and Kaktovik. At Point Hope, there was considerable friction and even instances of personal violence when the Assembly of God was founded, but these sectarian disputes ended long ago.

The Catholic congregation at Barrow has grown rapidly over the last 5 years, but its chief adherents are inmigrants rather than converts. The Filipino minority in Barrow is the largest single group accounting for the rise of that church. Worl and Smythe (1986) reported that a permanent priest may be assigned to Barrow to deal with the burgeoning congregation, but as of 1989 this has not happened. A priest visits every other week, alternating with lay service readers. The Episcopal Church is a dominant

force at Point Hope, but this dominance has declined over the last two decades. It is possible that the loss of especially charismatic and tolerant (e.g., of Iñupiaq dancing, ceremonials, and spiritual beliefs) Episcopal staff in the late 1960's and early 1970's may have contributed to this decline, according to key informants.[9] The Episcopal Church in Barrow has recently (1988) begun to hold separate services in contrast to the cooperative Catholic-Episcopal services that were customary in recent years, but it "borrows" the Catholic facility to do so (which suggests that material cooperation persists despite this separation). Key informants suggest, however, that sectarian differences may in fact have motivated this separation. The Episcopal congregation in Barrow is mainly non-Iñupiaq, whereas it is mainly Iñupiaq at Point Hope.

V.B. World View and Values

There are two obstacles to the interpretation of world view and values, especially in social science literature. The first is the inclination to envision values as one might think of economic choices: Americans buy less pork now than they did 40 years ago, so all things being equal, Americans "value" pork less. But in an ethnological view, values comprise ideological principles, not merely choices. Choices may reflect values, but ways of expressing values are constantly being invented and modified. The mode of expression is less important than the contents. This is why Nalukataq, formal dance troupes, Elders' Conferences, and other inventions are legitimate cultural institutions on the North Slope (see Smythe et al. 1985) inasmuch as they are creative modes of

[9] The influence of the Point Hope Episcopal Church has waned due to declines in support (it had no permanent staff during field excursions). It is simply capable of less because it lacks the stability and "presence" that comes with staff and support. There has not been any fundamental change in ideology or policy.

expression for underlying cultural assumptions and ideas. Similarly, values may remain intact despite rapidly changing institutional arrangements and technologies. Our personal observations and inferences from literature suggest that significant Iñupiaq values (mainly those relating to sharing, attachments between humans and the land and its resources, decisionmaking through consensus, and cooperation) have persisted on the North Slope due to the inherent plasticity and durability of value systems in general (i.e., because values such as those above are constantly recast, subtly redefined, and applied in new, novel settings).

Some examples will be useful to illustrate these points about plasticity. Distrust of outsiders has subsided, and so one portion of a kin-based constellation of values concerning loyalties and responsibilities has shifted as Iñupiat become integrated into a new sociopolitical arrangement. Religious syncretism (or blending) is a classic sign of plasticity, especially when it occurs without coercion. Today, Christian values often are considered "traditional" among Iñupiat, according to our observations. Our observations also suggest that temperance and the sobriety movement are seen by some Iñupiat as traditional values. Although food is shared primarily among kin, generosity across all social divisions (kinship, ethnicity, and so on) often is said to be "traditional," despite the fact that food sharing across those lines was rare a century ago--and for some Iñupiat, it was unheard of.

The second obstacle relates to the interactive argument proposed in Section IV.C. **Socialization**. Because Iñupiaq social dynamics already are subject to a broad range of ad-hoc redefinition by Iñupiat themselves, the role of outside observers (i.e., analysts)

merely complicates the matter by introducing another subjective layer through which those dynamics are interpreted. In short, our capacity to be misled by our observations is great indeed if we confuse modes of expression--which, we argue, are inherently creative and changing--with the ideas that are being expressed. The ideas themselves may be more stable in comparison to the ways in which they are expressed.

Much of the literature notes a characteristic passivity or detachment among Iñupiat, but interpretations of what this means about values and world view vary. Some observers portray Iñupiat as passive, reserved people and attribute these traits to cultural values stressing calm endurance and a nonassertive interpersonal style (see Brody 1975; Briggs 1970; Kleinfeld 1978; and others cited in Sec. III.C.). But others view the same detachment and attribute it to independence, self-assurance, and a rejection of the structuring mechanisms inherent in a bureaucratic society (see Brower 1980; Hennigh 1975). Some striking examples of different interpretations by observers exist in popular literature. Based on events that occurred on the North Slope, a controversy over the "real" character of Iñupiat erupted onto the pages of the New York Times. One author's piece was entitled "Alaskan Eskimos' Hatred of Whites," while the rebuttal penned by another observer was headlined "The Warm and Friendly Iñupiat People" (see Brower 1980:106-107).

A brief expansion of this point may be useful. Iñupiat commonly de-escalate hostile confrontations by assuming a compliant and passive demeanor. This is, in fact, a characteristic form of aggression management (cf. Briggs 1970). The meaning or function of this strategy is de-escalation, prompted by the Iñupiaq principle of equanimity

and cooperation in social settings (hence, apparent compliance may be a benign ruse). However, the uninformed observer may confuse the context (confrontation) or vehicle (passive compliance) with the function or meaning of the behavior, thereby concluding that Iñupiat are indecisive in the face of aggression or are generally passive and compliant. The same "data" can yield numerous, often conflicting interpretations (cf. McNabb 1985, 1987). McNabb (1990) provides a comparative analysis of these issues, looking at northern Alaska and Canadian Inuit data. The inherent plasticity of expressions of cultural value systems is responsible for both the confusion surrounding Iñupiaq values and for the persistence of Iñupiaq values in numerous forms and disguises, because that plasticity provides new and novel methods for expressing values in changing situations.[10]

V.C. Ethnicity and Tribalism

On the North Slope, the institutional features of ethnicity are prominent. Ethnicity has profound emblematic meanings among all Alaska Native groups, but the assertion of ethnicity as a political force is a particularly well-developed tactic on the North Slope.

Many North Slope institutions have claimed special privilege, recognition, or need on the basis of ethnicity, but none so vocally and consistently as ICAS. A milestone in ICAS history was the preparation of Civil Action No. A81-019 in conjunction with UIC

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[10] In the Iñupiaq case, this plasticity is one reflection of the creativity and instrumental inventiveness that is central to Iñupiaq world view. Briggs describes these characteristics by noting that in the Inuit view, things cannot be taken for granted, answers are not fixed, and humans as well as environments are seen in terms of their potentials rather than in terms of permanent categories (see Briggs 1991). She exemplifies these characteristics in analyses of play among Inuit youngsters, in which playmates are transformed into typewriters, and children's ankles become starters of snowmachines.

(ASRC and NSB provided financial support for the action). This action was a suit naming the United States as defendant, which claimed:

- Iñupiat had aboriginal title to the entire North Slope, including sea-ice and marine areas up to sixty five miles from shore;
- Iñupiat property rights in the Beaufort and Chukchi Seas were established by actual occupancy;
- the Iñupiat exercise sovereignty on the sea ice;
- ANCSA preserves Iñupiat rights beyond the boundaries of the State of Alaska;
- Iñupiat title was not extinguished by the Treaty of Cession or any other federal legislation;
- Iñupiat title and sovereignty are cognizable under international law and the Law of the Sea;
- the allocation of federal rights in offshore areas does not extinguish the rights of aboriginal inhabitants;
- the OCS Lands Act preserves aboriginal rights;
- a trust relationship still exists between ICAS and the U.S. government;
- the defendants' actions violate the American Indian Religious Freedom Act.

Hence, title to the North Slope and offshore areas should be transferred to ICAS. This action was filed in November 1981 and ICAS lost the case in 1982.

If ICAS had won, the Iñupiat virtually would have controlled large tracts of offshore properties. In addition, all State instruments, such as municipal governments and the NSB, would have become trespassers. It is perhaps inevitable that ICAS would lose the case, but the case itself illustrates the assertive role North Slope institutions have adopted to seek sovereign authority over lands and resources and establish Iñupiaq

institutions. Because BIA funds to ICAS were retroceded in 1982, the advocacy role of ICAS has declined, although tribalism is not a forgotten issue among Iñupiaq residents. It is impossible to ascertain now how tribalism will persist in a growing climate of institutional moderation (see Sec. III.E. **The Main Trends of Sociopolitical Change**).

By the time of the 1989 field season, it became apparent that most villages were beginning to formulate their own "tribal" identities through establishment or reactivation of traditional councils. The regional ICAS is no longer the vehicle of choice to advance that agenda, and so the focus has shifted from the region to the village. But at the same time, activities of other umbrella organizations (such as the AEWC and the ICC) express pan-regional and even pan-national Inuit tribal unity in key arenas. It is likely that this pattern will persist as regional bodies are drawn into State and national advocacy and planning efforts that arise from time to time, such as the current (1991) "National Indian Legislative Agenda" instigated by Senator Daniel Inouye. This agenda seeks objectives for presentation to Congress in areas such as economic self-sufficiency, tribal governance reform, American Indian cultural and religious freedom, and "homelands" issues (see Alaska Federation of Natives 1991:7).

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The NANA Region

Steven L. McNabb

THE NANA REGION

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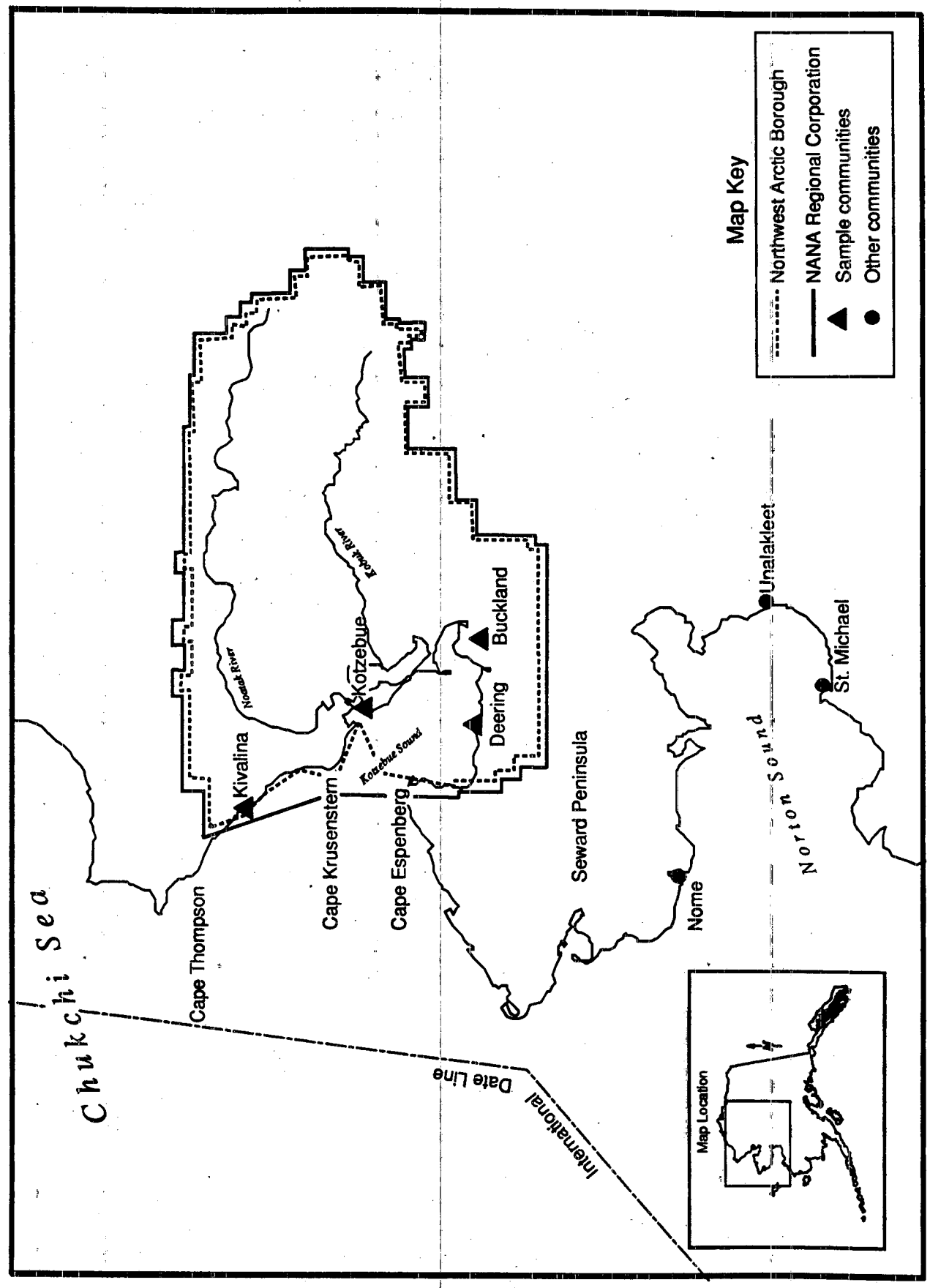
Map 1



NANA REGION

SCHEDULE A COMMUNITIES

THE NANA REGION[1]

PREFACE

The seven study regions of the Social Indicators Study were divided into two groups, based on concerns related to research design and efficiency of project administration. These groups are termed "schedules" and, as the term suggests, these groups represent not only sample portions but sampling agendas. Schedule A, of which this region is one part, also includes the North Slope, Aleutian-Pribilof, and Calista regions. Subsequent to the Exxon Valdez oil spill in 1989, the scope of the Social Indicators study was expanded and a new sample of Cook Inlet, Prince William Sound, and Kodiak area villages was developed. This group then comprised Schedule C. These terms and their meanings in the overall research design are introduced more fully in the KI Summary Introduction and are explained fully in another project document entitled "Social Indicators II: Research Methodology: Design, Sampling, Reliability, and Validity."

This Key Informant (KI) Summary was first drafted during 1987 subsequent to the first Schedule A field season. It was edited and revised during 1988, 1989, 1990, and 1991 to incorporate new data and discussions of changes over this interval. Field research was conducted by senior researchers in 1987 and 1989 in Schedule A sites and in 1988 and 1990 in Schedule B sites.

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[1] "NANA" is an acronym for Northwest Alaska Native Association Corporation, or NANA Corporation as it is best known. This area is coterminous with the Northwest Arctic Borough, and that designation is becoming increasingly common in government reports. NANA was selected as a study area designation when the Social Indicators Study was being planned and prior to the establishment of the Northwest Arctic Borough, so this acronym is used for the sake of consistency. These terms and the interrelationships among regional institutions are described in Section I of this KI Summary.

All of the information reported here that is based on discussions with institutional officials and residents was collected during two field excursions, but secondary data from other documents and archives may correspond to other years. Since there is always a lag between data collection and eventual publication, all technical documents are dated at the time they are produced. Aside from some minor exceptions, the collection of new information ceased at the end of 1990; so this document can be considered accurate through 1990.

The history, ethnology, and current socioeconomic conditions of this region are well documented. Particularly good references that are widely cited and that interested readers may wish to examine include Anderson, Anderson, Bane, Nelson, and Sheldon (1977); Burch (1975, 1980); Giddings (1952); and Smith (1966). Anderson et al. (1977), one of the most thorough subsistence ethnographies of any portion of Alaska, focuses on the Kobuk River. Burch (1975, 1980) provides superb analyses of kinship, social organization, and polity. Giddings (1952) reconstructs traditional Kobuk River culture using archaeological inferences and ethnohistorical methods. Smith (1966) establishes an ethnographic baseline for Kotzebue in her dissertation, which is standard reading for ethnographic treatments of this region. Anderson, Burch, and Giddings are central figures in the ethnological documentation of the area; and their work establishes continuity back to the first archaeological and ethnographic studies in this region.

Other references, often more brief or with a narrower scope, also warrant attention from serious readers. These include Bockstoce (1977), Burch (1970, 1985), Foulks (1972), Kelsey (1917), and Olson (1969). Bockstoce (1977) is historical, Burch

(1970, 1985) addresses social alliance mechanisms and subsistence at Kivalina, Foulks (1972) provides a psychosocial analysis relevant to northern Alaska as a whole that is widely considered controversial or narrow (but nonetheless worth examining), Kelsey (1917) provides a short history of missionary work in the region, and Olson (1969) discusses reindeer herding. Burch (1985) is mentioned here because his is one of the finest commissioned agency studies on subsistence; other commissioned agency studies are described below. Burch (1984) is a very good ethnological and historical overview for the region.

Agency reports and commissioned studies that are particularly useful include Alaska State Housing Authority (ASHA) (1971), Berger and Associates (1983), Stephen R. Braund and Associates (1983), Darbyshire and Associates (1981), Davis (1983), Maniilaq Association (1979), McNabb (1985b, 1989), Patterson (1974), Uhl and Uhl (1977, 1979), Waring and Associates (1988a and b), and Woodward-Clyde and Associates (1985). Not all of these are uniform in quality and some inaccuracies exist (as in Darbyshire and Associates 1981 and ASHA 1971), so to some extent they are better used as measures of "current thinking" at the time of publication. All Alaska Department of Fish and Game, Division of Subsistence, documents on the region are worthwhile, although only Burch (1985) is cited specifically because of its particularly great value.

Other citations (generally from academic journals) with a narrow field of interest that will be useful in some applications are Gaffney (1981); Jorgensen, McCleary, and McNabb (1985); and McNabb (1985a, 1987, 1990). The regional newspaper (Arctic

Sounder) and newsletter (NUNA) of Maniilaq Association are excellent sources of weekly and monthly news about current affairs.

I. HISTORICAL CONTEXT

In the following assessment we veer rather slightly from Burch (1984:313-315), who identifies four noteworthy historical periods in the Kotzebue Sound area. Burch's periods represent successions of events that displaced indigenous Iñupiaq social organization and introduced Western commerce and institutions. They are:

Early Exploration and Contact (ca. 1816-1850)

Period of Destruction (ca. 1850-1897)

Period of Consolidation (1897-ca. 1960)

Land Claims Period (ca. 1960-present)

The trends summarized by these periods overlap. This is especially noticeable during the first two periods, when displacement of existing institutions slowly accelerated until "destruction" accurately conveyed the main thrust of historic change. Trends of change that were in place prior to the period of exploration and contact should not be dismissed entirely from this scheme, however. For these reasons the format used here organizes the material into three periods: (1) Early Contacts and Displacement, and then following Burch, (2) Period of Consolidation, and (3) Land Claims Period.

I.A. Early Contacts and Displacement

Burch recognizes 25 autonomous traditional societies among the Iñupiat of North and Northwest Alaska (including the Seward Peninsula) during the precontact period (about 1800). Burch places 10 of these societies in or near the Kotzebue Sound area, or

what could be conveniently (but artificially) termed the NANA region (Burch 1980:260, 1984:304). These regional groups are identified in Map 2.

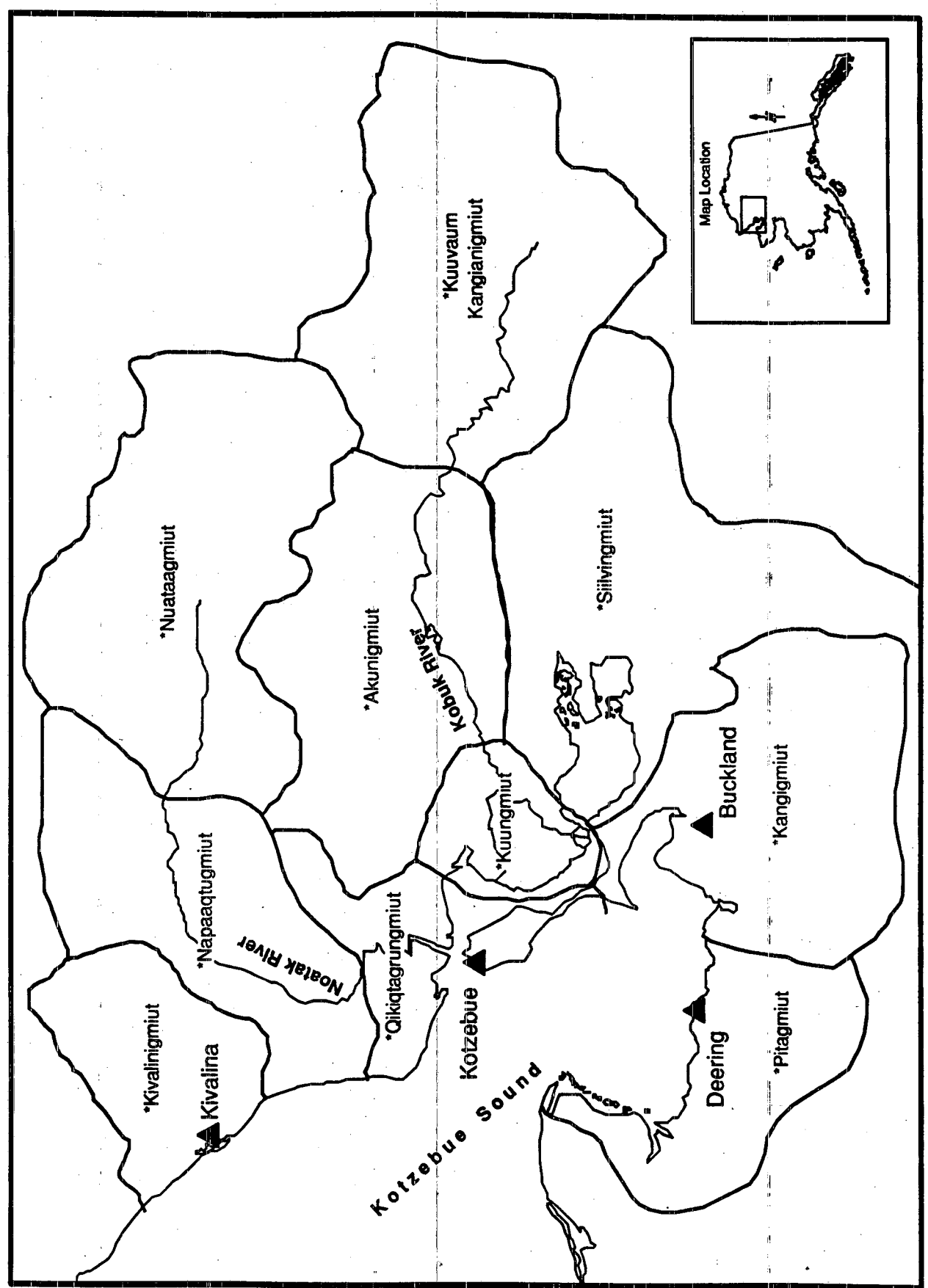
Burch's assertion that these groups were independent sociopolitical and territorial units is problematic, because their memberships consisted of extended bilateral "families" that are consistent with the fluid household-based social organizations described in the main body of Eskimo ethnographic literature. There is no doubt, however, that by the 19th century population concentrations in excess of 100 or 200 Iñupiat formed on a seasonal basis in many customary locations, usually with a customary membership. Burch's evidence for organized warfare among 19th-century territorial units supports his claims for independent sociopolitical organizations at that time; however, at the present time there is no consensus among scholars that warfare was widespread, common, or organized uniformly along territorial lines.

Rapid technological development in the post-Thule era[2] may have made numerous and large population concentrations possible and, if Burch is correct, also made autonomous territorial societies possible. This very early phase of social consolidation was followed by displacement and, at the turn of the 19th century, another form of consolidation (see Sec. I.B., Period of Consolidation). Archaeological remains in the NANA region span almost 10,000 years. Continuous occupation in relatively

---

[2] The Thule period began around 1000 A.D. and involved increasing technological specialization and complexity, an emphasis on a maritime adaptation (focused on sea mammals) that nonetheless included adaptations to inland tundra and riverine environments, and "re-adaptation" using old technology. Thule culture spread from Alaska across Canada to Greenland and resulted in substantial technological (and linguistic) uniformity across this zone by the 1700's. The Thule revolution also coincided with expansion into inland areas. Some technology associated with Eskimo culture, such as dog traction using sleds, appeared and spread during this phase.

Map 2



NANA REGION INDIGENOUS SOCIETIES (Societies marked by *)

restricted areas within northwestern Alaska may not have begun until after 1000 A.D. It was not until the 10th millennium of occupation that gillnets and seines were widely used, allowing sizable aggregations of Iñupiat despite periodic scarcity of essential game, such as caribou. Dog traction was unknown prior to the 17th or 18th century (Giddings 1952:112); but once introduced, it provided mobility to secure scattered resources distant from settlements. These technological changes transformed domestic economies and became fundamental milestones in the settlement history of the region. The recency of these changes suggests spectacular and calamitous historic events.

Unfortunately the available data are inadequate for inferring community-level changes in the immediate post-Thule period. It is likely, however, that the NANA region adopted post-Thule innovations somewhat later than did the North Slope, including dog traction, gillnets, and seines (see below; also cf. Hall 1984). It also is possible that the Thule innovations appeared in the interior riverine zones somewhat later than on the coast. The elaborate coastal whale-hunting complex, another post-Thule innovation, obviously distinguishes the North Slope region from the NANA region.

Following Burch (1980:260, 1984:304), the traditional societies in the NANA region pertinent to the report are:

Goodhope Bay (Pitagmiut) society (Deering area)

Buckland (Kangigmiut) society (Buckland area)

Kotzebue (Qikiqtagrungmiut) society (Kotzebue area)

Kivalina (Kivalinigmiut) society (Kivalina area)

The discussions below are based in part on descriptions prepared for the first MMS Social Indicators Study (see Berger and Associates 1983, Vol. 3).

Pitagmiut and Kangigmiut Settlement and Subsistence: Traditionally the Iñupiat of the northern Seward Peninsula hunted sea mammals in late spring, before breakup. Those in the vicinity of Cape Deceit (modern Deering) often moved northwest to Cape Espenberg to hunt seals from open leads in the ice and open water, and to hunt abundant waterfowl and sea birds. Those farther to the east (near modern Buckland) traveled to the coast to hunt belukha whales in the shallows at Eschscholtz Bay. Some might remain to hunt seals after the belukha hunt, but many traveled north to Sisualik, near the mouth of the Noatak River, where a midsummer trade fair attracted Iñupiat from even hundreds of miles away.

Occasionally the Iñupiat from the western Seward Peninsula (Pitagmiut) attended the trade fairs, but in general they avoided them in favor of re-establishing summer and fall fishing camps on rivers closer to Cape Deceit. Both groups fished extensively in the fall while slowly moving inland to upriver winter village sites. Here the Kangigmiut and Pitagmiut would aggregate in fairly large numbers, living on stored foods and caribou and small game that could be hunted periodically through the winter (cf. Burch 1980:288). Seasonal concentrations could be large at other times of the year. For example, a crew of the Vasiliev and Shishmaref expedition encountered 300 Iñupiat, probably Kangigmiut, at Eschscholtz Bay in July 1820 (Bockstoce 1977:7).

Qikiqtagrungmiut and Kivalinigmiut Settlement and Subsistence: The Iñupiat from both areas frequently mingled during summers in the Hotham Inlet area near

Sisualik and Cape Krusenstern, where they hunted belukha in the shallows and awaited trading opportunities during the annual fair. Some Kivalinigmiut would forego the fair, instead hiking inland to hunt caribou. Just prior to breakup, these Iñupiat followed a similar harvest strategy but in different areas: the Qikiqtagrungmiut were apt to hunt seals at leads on the sea ice in the vicinity of the Baldwin Peninsula, whereas the Kivalinigmiut hunted throughout the leads on the Chukchi Sea proper north of Kotzebue Sound.

Following the fair in midsummer, the Qikiqtagrungmiut and Kivalinigmiut dispersed to fish and hunt caribou and small game in the vicinity of their winter homes. Winter settlements appear to have been more sedentary and dense for the Qikiqtagrungmiut, who hunted seals at breathing holes and fished through the ice during winter. The Kivalinigmiut were less sedentary as they pursued caribou and small game. Yet they too engaged in some seal hunting and ice fishing (cf. Burch 1980:289-290).

Early Contacts: Otto von Kotzebue first sighted and explored Kotzebue Sound in 1816 (Burch 1984:313). Knowledge of the Kotzebue Sound area predated von Kotzebue's voyage, so European-Native contacts likely began much earlier. The Russians, for instance, had been aware of Kotzebue Sound for about a century prior to that voyage (Bockstoce 1977:6), possibly through information passed to them by Siberian Chukchis who were frequent middlemen for transactions at the Sisualik trade fair near modern Kotzebue. It also is likely that as early as the mid-17th century, Russian traders on the Anadyr River in Siberia had intervened in this Native trade network that

predated European contact and that connected Siberian and Alaskan Natives (Van Stone 1984: 154-5, Fisher 1943, 1977).

Moreover, during the first half of the 19th century, the principal actors in scientific and exploratory expeditions in the Bering Strait area were the Russians and the British. Scientific aims were often coupled with pursuit of commerce during these voyages. By 1833 the Russian-American Company had established a trading post at Saint Michael and a trading hut at Unalakleet on Norton Sound to intervene in the fur trade between Natives from the interior Yukon and Eskimos from the coast (Jorgensen and Maxwell 1984; Van Stone 1984). Prior to the 1830's the Eskimos from Unalakleet traded pelts from the interior at the trade fairs near Kotzebue. Many of those goods, in turn, made their way to Siberia and probably to Moscow and Paris.

The Hudsons Bay Company threatened the Russians from the east. By 1847 the Company was operating within Alaska, at Fort Yukon. British expeditions to locate a Northwest Passage placed Russian privileges in Alaska at peril. Apparently some expeditions during this period carried out trade with the Iñupiat, for instance, exchanging firearms and ammunition for furs and ivory (cf. Bockstoce 1977:7).

Thus, before 1850 European contacts in Kotzebue Sound had accelerated dramatically. The Iñupiat were aware of the trading opportunities that accompanied the exploration parties. Explorers anxious to secure good will purchased immense quantities of goods from the Iñupiat. By 1824 trade goods were routinely carried to exchange for food procured by the Iñupiat, a pattern that was to re-emerge later during the whaling era.

In 1826 at Cape Thompson, the British crew of the Blossom noted that "During our stay we purchased almost everything there was in the village disposable, more for the sake of their [Iñupiat] gratification than our own" (Wolfe n.d. as cited in Bockstoce 1977:16). An ironic counterpoint to this event is that an altercation involving the crew of the Blossom led to the killing of a Kotzebue Sound Iñupiaq, the first violent death of a northern Alaskan Eskimo at the hand of a European in recorded history.

Displacement: Trends that were set in motion in the 1820's continued over the next six decades, accelerating after 1880. Displacement of the Iñupiat and their institutions culminated in decimation and massive influxes of non-Iñupiat by 1898.

Contacts with trading vessels, mainly at or near the Sisualik trade fair, increased steadily. Coastal explorations diminished and gave way to a period of interior explorations--notably those of Cantwell and Stoney--up Kotzebue area rivers. Patrols by the U.S. Treasury Department designed to halt the trade in alcohol and firearms began after the Treaty of Cession (1867); however, the Federal presence was never intense in this area until after the turn of the century (see Burch 1984:314).

Disease and famine were the main agents of displacement during the latter half of the 19th century. Although well-documented evidence of epidemics does not exist, reports suggest that measles, influenza, diphtheria, and other diseases decimated many local populations. The caribou populations began to crash in the 1870's in several areas, leading to famines toward the end of the century. Burch (1984:314) provides about a dozen good citations relevant to this period. The famines described for this period are well documented; however, specific data on caribou migrations and population declines

are not available. This deficit should not overshadow the fact that serious famines caused by caribou declines did occur; these were the events that later motivated Sheldon Jackson to establish domesticated reindeer herds at many locations in and near the NANA region.

The Pitagmiut were decimated by other unknown causes, possibly unrelated to disease or famine, before the 1830's. The Kangigmiut began to fragment in the 1840's, and most moved south to Norton Sound. The death toll from the 1881-1883 famine may have exceeded 50 percent among the Qikiqtagrungmiut and Kivalinigmiut. Many survivors in these groups moved north, further reducing the ranks of local Iñupiat. The underpopulated areas were gradually repopulated by emigrants from the Shishmaref area, inland river populations, and more distant locations.

In 1897 the Friends Church established a mission and school at Kotzebue. The original intention was to establish the mission near the confluence of the Kobuk and Pah Rivers, where larger Iñupiaq populations than at Kotzebue resided. The missionaries' late-fall arrival in Kotzebue Sound encouraged them to settle on the coast instead of inland so as to avoid arduous travel conditions at freezeup. About 15 years earlier the annual trade fair moved from Sisualik, across Hotham Inlet, to Kotzebue proper. The institutional and trade infrastructure of Kotzebue was established with the advent of the Quaker mission.

In 1898 the Kobuk and Noatak River gold rush began. As many as 1,200 miners surged up the Kobuk alone during that summer and established 32 mining settlements, some of which were only one-half to 3 miles apart (see Grinnell 1901; Mendenhall 1902).

The impact on the resident population is impossible to assess formally, but it is likely that the Western concepts of commerce and formal institutions were now permanently installed in the NANA region. For instance, anecdotal evidence and family history data from Kiana, near the mining site of Klery Creek, indicate that local Iñupiat first started selling their labor for fixed cash and commodity wages at this time. The concept of "credit" (and the store as a "credit" or "lending institution") may also have been first adopted at this time. Evidence of intermarriage is still conspicuous, since several prominent Kiana families are descended from miners and their Iñupiaq spouses.

I.B. Period of Consolidation

The consolidation of NANA region villages proceeded unevenly around the turn of the century for two reasons. First, the centralized economic opportunities were intermittent and localized. Second, the fur trade and reindeer herding counterbalanced the trend toward consolidation. Permanent, sedentary residence was poorly suited to trapping and herding.

After the declines in caribou populations and famines of the 1870-1885 period, the Bureau of Indian Affairs (BIA) initiated plans to import reindeer and establish self-sufficient reindeer herding operations that would provide both food and marketable products for Eskimos in many parts of Alaska. In the NANA region, the sample communities most influenced by this development were Kivalina, Buckland, and Deering. Until the reindeer market crashed in the 1930's (accompanied by a decline in herd populations for uncertain reasons), herding tended to inhibit village consolidation while

maintaining seminomadic practices. Herding remains a viable industry--but only as a family business--at Deering.

Subsequent to the decline of the Arctic Ocean whaling industry during the first decade of the 20th century, the fur trade assumed substantial importance as a source of income for many northwestern and northern Alaskan Iñupiat. Although the whaling industry had little more than indirect impacts on the NANA region Iñupiat, the fur trade was a crucial source of money for several decades, declining in importance after the mid-1930's when prices for pelts plunged on the world market. Trapping was a second countervailing force that slowed village aggregation, since dense settlements were not compatible with harvests of diffuse resources until the advent of snowmachine travel.

Village aggregation, then, proceeded fitfully: in 1910, the majority of residents lived outside permanent villages. As late as the 1930's, about 20 percent of the population lived in mobile camps, dozens of which dot planning maps of this period (cf. Alaska State Planning Council 1940). After 1898, a wide variety of mission-schools, stores, a few post offices, and two clinics were established throughout the region. Mining in interior Seward Peninsula areas provided some job opportunities. Deering was a staging area and Candle was a mining site. After a fast start, the volume of gold and tin production reached a low but fairly stable level in the 1920's and 1930's. During the 1930's and 1940's, the caribou populations recovered, partially offsetting the decline in reindeer herding and trapping. As Burch notes, "At this point, the map of the Kotzebue region acquired essentially its present form" (1984:314).

The major infectious disease epidemics were over by the 1920's. Aggressive public health campaigns to eliminate tuberculosis during and after the 1940's met with substantial success, although the evacuation of infected residents acted as a damper on village growth. It was only after World War II that intensive centralization of institutions and populations occurred on a large scale. Although Kotzebue served as the de facto regional hub for decades, it came to dominate regional opportunities and services in the 1950's. Between 1950 and 1960, the Kotzebue population increased by 211 percent, drawing emigrants mainly from the Noatak, Noorvik, and Deering areas and, to a limited degree, from Point Hope (see ASHA 1971, Smith 1966).

By 1960, ten communities in what is now called the NANA region existed in their current locations--(an eleventh, Ambler, fissioned off from Shungnak in the 1960's). Each had a school, a National Guard Armory, at least one store and church, an airstrip, and local governance by elected village council. No municipal government existed in any village except Kotzebue, which incorporated in 1958 (Alaska Municipal League 1986).

I.C. The Land Claims Period

The main event that began to crystallize regional political organization in the NANA region was a proposal by the U.S. Atomic Energy Commission to create a harbor near Cape Thompson with an atomic device (Burch 1984:315). The proposal was roundly criticized by residents, and opposition was mobilized. This crystallization did not occur in a vacuum, however, but rather coincided with a pan-Eskimo movement that began to gain momentum in the 1960's (see Lantis 1972), formally represented in the

Northwest by the Iñupiat Paitot (People's Heritage) and advocated by Howard Rock's newspaper--The Tundra Times.

The NANA formed in 1966 and devoted itself to advocacy, land protection, and Native rights. The Kikiktagruk Development Corporation (KDC) of Kotzebue formed in 1967 to administer economic development grants secured from the U.S. Office of Economic Opportunity; later KDC would serve as a model for the Kikiktagruk Iñupiat Corporation (KIC), the Kotzebue village corporation.

Before 1966, as a result of their independent studies of treaty law and U.S. policy, some influential regional leaders concluded that Natives had aboriginal rights to land. These ideas fit perfectly with an emerging platform among numerous Native groups which contended that the aboriginal title in Alaska had never been settled. New statewide groups evolved at this time; Willie Hensley, for instance, was instrumental in developing the Alaska Federation of Natives. The first decade of this period culminated in passage of the Alaska Native Claims Settlement Act (ANCSA).

Unfortunately this period is poorly documented in terms of the persons, personalities, and ideologies that created the momentum within the Native community to seek and secure the land settlement. It is so recent that, ironically, it does not yet qualify for ethnohistorical treatment given conventional definitions of this sort of analysis. The available evidence provides little hint of the substantial leadership base the NANA region would provide in Statewide Native polity during the land claims period. For instance, the one ethnography produced immediately before passage of the ANCSA characterized Native-Native and Native-non-Native relations in almost disparaging terms

(Smith 1966:89-93) and described Kotzebue as a "Whiteman's town in which Eskimo also live", adding: "In the opinion of State of Alaska officials and representatives from other government agencies, Kotzebue is the 'worst town' in the Arctic, the criticisms predicated on 'lack of leadership', the 'drinking problem', and the delinquency of the youths" (Smith 1966:6). Obviously there is no simple way to resolve these characterizations with the surge of committed, astute leadership that has blossomed in the region since about 1970. The author has observed that some regional leaders exhibit uncommon attributes, such as reduced kinship networks; long periods of residence, work or school away from the region; and family histories that include intermarriages between Iñupiat and significant non-Native traders or administrators. However, these factors alone do not explain the NANA leadership phenomenon because they are not unique to the NANA region.

It is noteworthy that many NANA leaders attended school at Mount Edgecumbe (a Native vocational boarding school in Sitka), an experience common to many other Native leaders and one that may have encouraged tolerance, hard work, and group decision-making (see Kleinfeld 1978 in relation to the Saint Marys school environment, which encouraged similar attributes). Again, however, this factor is an interesting coincidence but a poor explanation.

The ANCSA created 11 village corporations and a regional corporation. In 1972, the original NANA separated from NANA Corporation, assumed the name Mauneluk Association (later Maniilaq Association), and began conducting health, employment, and social service programs as the regional nonprofit ANCSA corporation. The Kotzebue Area Health Corporation incorporated in 1973 but then merged with Mauneluk in 1975.

All ANCSA village corporations except KIC (Kotzebue) merged with NANA, also in 1975. Some NANA administrators consider this one of the most important corporate milestones in NANA history, since it strengthened regional polity by ensuring unity (Griest 1981, personal communication).

In 1974 the NANA Housing Authority was formed to administer State- and federally funded housing programs in the region; however, this organization is not affiliated with NANA Corporation. In 1976 a Rural Education Attendance Area (REAA) established in the region superseded the BIA and State-Operated School (SOS) systems, providing a greater measure of local involvement in education. In 1980 Maniilaq Manpower Corporation (the employment and training arm of Maniilaq Association) was established as an independent entity; however, it continues to share the Maniilaq Association Board of Directors governing authority. Finally, the Northwest Arctic Borough (NAB) was created in 1986 after about 5 years of preparatory planning and development. The NAB assumed authority for primary and secondary educational services at that time; so some management responsibilities of the Northwest Arctic School District (REAA), now called the NAB School District, were transferred to the borough.

The coverage of the most recent period is abbreviated because the remainder of the NANA region section emphasizes the last decade. Details on population change and demography appear in Section II (Population and Demography); and more information on polity and administration is available in Section III (Community Organization and Economy).

II. POPULATION AND DEMOGRAPHY

This section is divided into two parts. The first describes total village populations; the second examines the age, gender,[3] and ethnicity characteristics of these populations. Since the cross-sectional characteristics are not available on a yearly basis, coverage in the second section does not extend past 1980. Overall population figures include the most recent revenue sharing estimates for sample communities. Selected information from the 1989 NAB survey is included where relevant.

II.A. Overall Population and Net Changes Through Time

Burch (1984:316) provides population estimates for the NANA region based on ethnohistorical evidence and adjusted census data. Table 1 reproduces these estimates for the 1880-1960 interval for the NANA communities in our sample. The population shifts described in Section I are readily identified in this table.

Substantial growth at Buckland and Deering is apparent in 1940. This occurred following the decline of the mining, reindeer herding, and trapping industries. We infer that families regrouped at permanent villages. The decline in population for those villages after World War II (see 1960 column) is matched by a large increase at Kotzebue. The consolidation at Kotzebue is obvious. But internal growth and consolidation through inmigration also affected Kivalina after World War I, even though its net change between 1880 and 1960 was negative. It is apparent that economic

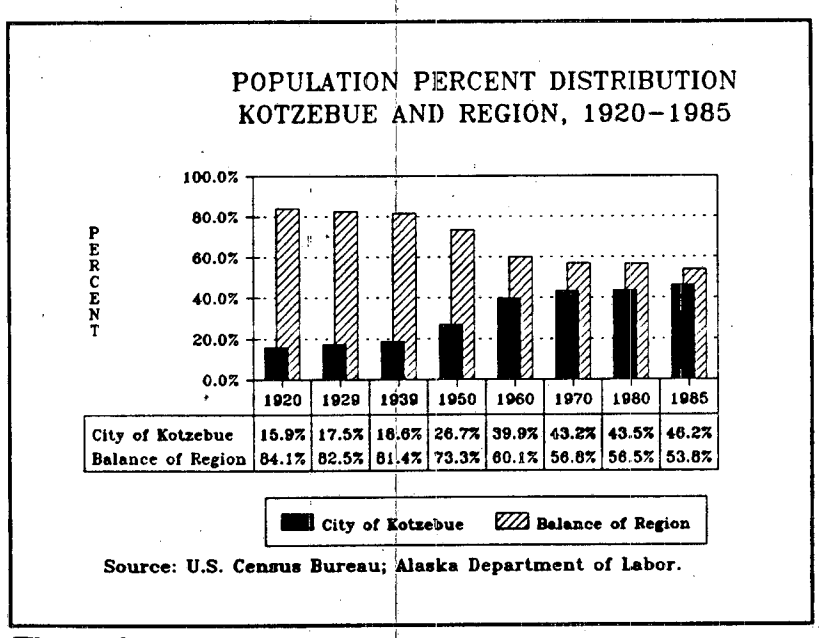
[3] At the request of the Minerals Management Service, the word "gender" is used in place of "sex," the more common term in demography. This convention will be used in all KI summaries.

Table 1

NANA REGION POPULATION ESTIMATES, 1880-1960
(20-Year Intervals)

Community	1880	1900	1920	1940	1960	Net Change (percent)
Buckland	50	25	150	275	190	+280%
Deering	50	25	75	230	95	+90%
Kivalina	275	50	80	100	140	-51%
Kotzebue	225	100	225	375	1290	+473%

Source: Burch 1982, 1984:316.



	1920	1929	1939	1950	1960	1970	1980	1985
City of Kotzebue	15.9%	17.5%	18.6%	26.7%	39.9%	43.2%	43.5%	46.2%
Balance of Region	84.1%	82.5%	81.4%	73.3%	60.1%	56.8%	56.5%	53.8%

Source: U.S. Census Bureau; Alaska Department of Labor.

Figure 1

opportunity (jobs, but also easier access to amenities, transfer payments, and possibly lower living expenses) is the chief motivating force in the hub consolidation at Kotzebue.

This consolidation is graphically depicted in Figure 1, which illustrates the growing share of the overall regional population that has resided in Kotzebue over the last 70 years. By comparing Kotzebue to the balance of the region, the accelerating shift toward hub residence subsequent to World War II is clearly shown. This trend toward consolidation at a regional hub is by no means unique to Northwest Alaska.

The study area population appears to be demographically robust and is apparently growing through both inmigration and natural increase. Based on age- and sex-controlled cohort forecasts, the NANA region population is expected to exhibit internal growth rate increases of about 38 percent every 5 years. This equates to population growth of 13 percent between 1980 and 1985 and 18 percent between 1985 and 1990 (Darbyshire and Associates 1981, Woodward-Clyde 1985:62, Vol. 2). Reports prepared prior to the enactment of ANCSA forecasted population decline or stagnation due to outmigration of young adults (see, e.g., ASHA 1971). These reports undoubtedly failed to account for return migration while predicting higher rates of outmigration than occurred in fact. Two unintended consequences of ANCSA have been reduced outmigration and high rates of return migration.

One brief analysis of NANA-shareholder-residence data supports this view of return migration; however, the data do not allow controlled cohort comparisons (see McNabb 1983). Scanlon (1981) agrees with the conclusion about return migration, although her evidence is anecdotal rather than analytic. Scanlon is, however, the NANA

Corporation Shareholder Relations executive responsible for tracking shareholders through time. Her evidence, combined with the other cited material, supports a view of cyclic return migration from and back to the NANA region so as to counterbalance any obvious trend toward outmigration and net population decline. Little or no cross-sectional data on return migrants now exist.

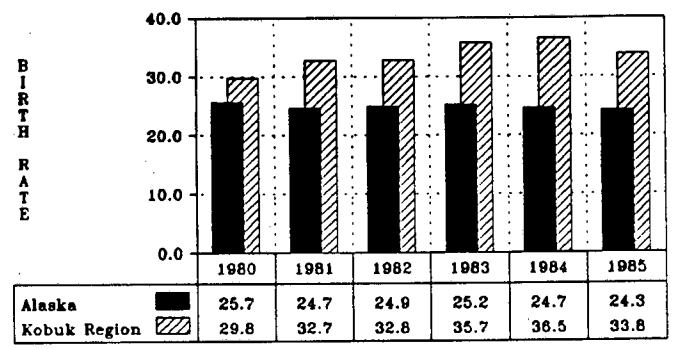
Recently published analyses of Alaska Vital Statistics data illustrate a surplus of deaths over births for 1978 (cf. Davis 1983:161). Those records may underreport births (1.8%) while more accurately recording deaths (2.1%). The net decline is inconsistent with gross census data (Table 2) and with Indian Health Service (IHS) data. The latter show a birth rate of 3.6 percent for the Kotzebue Service Unit as a whole and up to 6 percent for selected villages (Buckland in our sample) in 1985 (see McNabb 1985a:105-106). The IHS figures, however, tend to be inflated by an indeterminate factor due to multiple records. Birth rates for Alaskan rural regions in general have been increasing over the last decade from approximately 30 per thousand to about 35 per thousand (McNabb 1990), and the NANA region ranks very high every year. The general increase is no doubt due to an increasing young adult female cohort (McNabb 1990); however, increases in fertility and fecundity are possible (but the data are ambiguous). Alaska Department of Labor data also indicate that birth rates are climbing (see Fig. 2). It is noteworthy that the teen birthrate and the unwed-teen birthrate (the latter is a subset of the former) are both higher in the NANA region than anywhere else in Alaska (Weeks 1989). In addition, the number of teen mothers

receiving Putyuk Prematernal Home services in Kotzebue has risen from 17 in 1987 to 28 during the first 6 months of 1989 (NUNA 1989c).

Table 2 shows population sizes, Native ethnic composition, and changes between 1970 and 1980. Table 3 lists village populations on an annual basis from 1980 to 1988. The erratic shifts are likely due to poor data collection as well as realistic fluctuations in village populations on a year-to-year basis. The 1985 figures are approved revenue-sharing estimates used by the Alaska Department of Community and Regional Affairs, and they probably are wrong. The 1984 Department of Labor figures are likely to be closer to the actual 1985 counts.

Figure 2

BIRTH RATE TRENDS, 1980–1985
KOBUK REGION AND ALASKA



	1980	1981	1982	1983	1984	1985
Alaska	25.7	24.7	24.9	25.2	24.7	24.3
Kobuk Region	29.8	32.7	32.8	35.7	36.5	33.8

Note: Birth rate per thousand persons.

Source: Alaska Department of Labor.

II.B. Age and Gender Profiles

The NANA region is "aging" demographically due to the steadily increasing median age. The increase is not consistent across all communities. Few data exist to explain the inconsistency across villages, which could be due only to stochastic variations

Table 2

NANA REGION STUDY AREA VILLAGES: POPULATIONS, ETHNICITY, AND POPULATION CHANGE, 1970-1980

Community	1970 Total	1970 % Native	1980 Total	1980 % Native	Total Change (%)
Buckland	104	99%	177	91%	+70.2%
Deering	85	98%	150	92%	+76.5%
Kivalina	188	97%	241	98%	+28.2%
Kotzebue	1,696	78%	2,054	77%	+21.1%

Sources: Davis 1983, McNabb 1985a.

Table 3

STUDY SITE ANNUAL POPULATION ESTIMATES, 1980-1988

Community	1980	1981	1982	1983	1984	1985	1986	1987	1988
Buckland	177	211	217	218	249	248	259	259	312
Deering	150	155	158	165	150	148	148	148	165
Kivalina	241	249	253	269	294	272	272	272	290
Kotzebue	2,054	2,250	2,470	2,237	2,345	2,981	3,594	3,594	3,705

Sources: Alaska Department of Community and Regional Affairs 1985, 1986, 1987, 1988; Alaska Department of Labor 1981, 1982, 1983, 1984, 1985; McNabb 1985a.

in birth rates and migration patterns that are amplified in small populations.[4] The shift in age characteristics probably is due to three main factors:

- Young adults (and their families) in the prime child-bearing and -raising age categories are underrepresented, suggesting outmigration of these persons. The outmigration for education, job training, military service, or employment is often balanced by return migration;
- Life expectancies are increasing; and
- Inmigrants (both Native and non-Native) tend to be older than the population median. This factor is eliminated when inmigrants are accompanied by children.

The proportion of dependent senior citizens has not markedly increased, but rather the survivors tend to live longer (see Davis 1983:157-158). The return migration habits of NANA residents have never been well-documented, but indirect evidence suggests that a large proportion of the NANA region population base (perhaps as much as 25%) is absent from the region at any point in time but later returns (see Berger and Associates 1983:E54, Scanlon 1981). Males often outnumber females by a modest proportion due to uneven frequencies of in- and outmigration by gender. The author's field observations since 1975 indicate that inmigrant males, often transient non-Natives, outnumber inmigrant females, and that outmigrant Native females outnumber outmigrant Native males. Previous observations by staff and KI comments in Deering indicate a surge of return migration by females in that community after 1960, due to termination of temporary absences for schooling and employment rather than new opportunities at Deering per se.

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[4] In a small population, demographic "aging" is significantly influenced by fertility on the part of a small number of persons. A couple of births this year rather than next, especially if combined with the death or emigration of an elder, can substantially decrease the median age of the population. In this sense, shifts may be due to both stochastic effects and historical contingency.

Table 4 depicts age and gender breakdowns for 1970 and 1980 for the NANA sample communities. Full cross-sectional breakdowns for 1980 are not completely reliable, so available age figures are presented for the Native population as a whole. Since the 1980 subclassifications reflect only the Native populations, it is possible that the complete figures for all ethnic groups would portray a somewhat older population with a higher proportion of males because the non-Native component has been weighted in this direction in the past. For example, transient employees (teachers, technicians) who come to the region to work have historically been male more often than female.

Table 4

NANA REGION COMMUNITY AGE AND GENDER FIGURES, 1970-1980

Community	1970				1980[a]			
	Male	(%)	Female	(%)	Male	(%)	Female	(%)
Buckland	56	(54)	48	(46)	92	(57)	69	(43)
median age	15.8		15.6		19.1			
Deering	41	(48)	44	(52)	n/a		n/a	
median age	14.9		15.5		n/a			
Kivalina	97	(52)	91	(48)	125	(53)	112	(47)
median age	16.8		16.1		20.1			
Kotzebue[b]	845	(50)	851	(50)	802	(51)	772	(49)
median age	17.1		16.9		21.0			

Sources: Alaska Department of Community and Regional Affairs 1974; U.S. Department of Commerce, Bureau of the Census, 1982.

[a] 1980 figures are for Natives only; Deering data were incomplete for these characteristics. For 1980 the median age is for males and females combined.

[b] Kotzebue percentages are rounded, so differences in actual frequencies are not fully represented in the proportions.

Councils have operated at the village-level for the last 40 years (except in their nomination capacity, as above; however, a new regional council, the Northwest Tribal Council (NWTC), was organized in 1986. The NWTC has not yet established specific programs; however, the impetus for the creation of a regional body derived from the idea that a renewed regional approach to tribal courts, provisions of the Indian Child Welfare Act (ICWA), and land protection in general was needed. One KI noted that land protection was the central issue, adding that: "The regional tribal council formed due to the perception of not enough attention being paid to land protection, and mistrust of other agencies in this area [e.g., on this topic]."

Our understanding of the issue of land protection is that protection connotes assured access and subsistence use rather than conservation or preservation in the conventional meaning of those terms (which to many residents implies constraints on access and use, and enforcement by nonlocal entities). The NWTC has not yet evolved a plan of action in the land protection area; but the creation of a new body with land and resource protection goals, in conjunction with the large number of other NANA region groups that pursue goals along the same lines, underscores the subjective importance of these issues. The redundant land protection goals probably imply more about the importance of the issue than about competitive tendencies among groups pursuing similar aims, which we find to be minimal at best.[5] For instance, a review of several

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[5] "Land protection" as described here is an explicit goal of NANA Corporation, Maniilaq Association, the NANA Regional Strategy, the Northwest Arctic Borough, the NANA Coastal Resource Service Area Board, regional Fish and Game Advisory Committees, local representatives of the Arctic Regional Fish and Game Advisory Council and Alaska Joint Boards of Fisheries and Game, the Kobuk Valley National Park Subsistence Resource Commission, and the Cape Krusenstern National Monument Subsistence Resource Commission.

III. COMMUNITY ORGANIZATION AND ECONOMY

This section addresses governance, commerce and industry, health and other social services, sodalities and voluntary associations, and interpretations of the origins and directions of important sociopolitical change in the NANA region. The emphasis is largely regional, but specific details on the sample communities are provided where they are especially relevant.

III.A. Governance

Indian Reorganization Act (IRA) Governments: During the period of consolidation (see Sec. II.B above), village councils were formalized as instruments of governance in the NANA region under the provisions of the IRA of 1934, as extended to Alaska's Natives in 1936. The Kotzebue IRA council and Noatak traditional council, both officially organized in 1939, are the governments with the longest histories of continuous operation in the region.

Relationships between village councils and other more recent administrative bodies, such as municipal governments and regional organizations, typically have been cooperative. For example, lands on municipal reserves have been provided for council programs (e.g., the Kotzebue IRA built and now operates a day care facility on municipal property; in 1986, KIC sold land "at cost" to the Kotzebue IRA to build a subsistence butchering and freezer facility); and one organization may serve as a grantee or flow-though for funds that are directed to another organization. In addition, village councils nominate candidates for the Maniilaq Association Board of Directors.

years' issues of local print media (Arctic Sounder and NUNA) shows that land protection, resource protection, and local control (often couched in terms of local decision-making about lands and resources) are topics of articles in virtually every issue; and these issues are typically parts of campaign positions taken by candidates for local and regional elected offices. There is no visible disagreement on the issue per se, but various institutions and candidates stress different nuances in particular situations.

During the 1987 field season, the Kotzebue IRA was principally engaged in completing the community butchering and freezer facility and administering ICWA and tribal courts programs (in concert with the Selawik, Kiana, and Noorvik councils) designed chiefly to mediate Native adoption cases as a go-between among households, helping services, and State agencies. BIA funds underwrote the latter programs (see Waring and Associates 1988a:211-212). By 1989 most BIA funding was terminated and the programs were scaled back to a virtual standstill. The Kotzebue IRA still administers Federal funds for educational assistance (tuition grants) and adult vocational training. Maniilaq Association administers BIA funds for the other sample villages (Buckland, Deering, and Kivalina). The IRA councils in other sample villages continued to operate at very modest levels, primarily offering fuel sales on a sporadic basis. The NWTC continued to explore basic organizational goals but offered no program or agenda.

Municipal Governments: Kotzebue is the only NANA region community to establish a municipal government prior to the land claims period. Other communities established second-class city governments soon after the State provided the opportunity

to do so. The exception is Noatak, which has not established a municipal government (Berger and Associates 1983:E26). The author's observations and interviews suggest that Noatak is a traditional community that has preferred to avoid State regulations on community plans and services by retaining a traditional-council form of government. Selawik briefly enjoyed first-class status in the mid-1970's (the only NANA community to do so) in order to manage its community schools but reverted to second-class status in 1977 because the management burden overtaxed its human and fiscal resources.

Brief profiles of the municipal apparatus in the sample communities are provided below.

Buckland: The city, incorporated in 1966, carries out municipal affairs under a city manager form of government. The city levies a 2-percent sales tax to offset the cost of municipal services that are supported mainly by State grants and entitlements. The city is responsible for public safety, water, and electrical services. Some recreational programs are overseen by the city.

Deering: The city, incorporated in 1970, conducts its business under a strong council form of government. Deering City levies a 3-percent sales tax; however, most city programs are supported primarily by State grants and entitlements. The city is responsible for water, electrical, and airport maintenance services. The city oversees a Village Public Safety Officer (VPSO) but intends to establish municipal public safety services under its own auspices. The city also oversees a modest community library.

Kivalina: Kivalina, incorporated in 1969, also conducts city affairs under a strong council form of government. The city levies a 2-percent sales tax, but the major

portion of its annual budget is derived from State grants and entitlements. The city is responsible for water, electrical, telephone, public safety, and airport maintenance services.

Kotzebue: Kotzebue, incorporated in 1958 as a second-class city, carries out municipal business under a mayoral form of government; prior to 1985, Kotzebue conducted its affairs under a strong city manager and still retains a city manager but in a more subordinate position. Kotzebue levies a 3-percent sales tax. The city is responsible for planning and zoning, water, sewer, refuse collection, and public safety services. The city oversees a modest community library. Electrical services are handled by a separate cooperative. Since the creation of the NAB, some planning responsibilities have been transferred to the borough; however, the City of Kotzebue still exercises local planning responsibilities. During FY 1989, the city established the Office of Management and Budget, which unites finance, purchasing, and planning functions. The specific division of authority and responsibility between the city and borough is not yet complete as of 1989. Waring and Associates (1988a) provides a comprehensive description of Kotzebue City administration, programs, and revenues current through December 1988 that is not duplicated here. (See Smith 1966 for a description of Kotzebue City operations in the 1950's.)

Northwest Arctic Borough: The NAB was created in 1986. By 1987 its roles and responsibilities had not yet crystallized. In 1981 the first public documents appeared that projected the creation of a borough government in the near future (Darbyshire and

Associates 1981), and NANA Corporation identified borough government as a specific regional objective in 1983 (NANA 1983:5; see also Davis 1983:240).

The Red Dog mine is the essential tax base for the NAB; thus, a primary obstacle to the creation of the NAB was the overlap of NANA lands at the Red Dog site with the jurisdictional boundaries of the North Slope Borough (NSB). Both NANA Corporation and the NSB aggressively sought to encompass these lands, the NSB proposing no change from the status quo while NANA region advocates sought a land transfer that would place the entire mine site outside NSB boundaries. The State Boundary Commission endorsed the land transfer in early 1986, paving the way for rapid NAB development.

The NAB was approved by popular vote in 1986, and John Schaeffer was elected borough mayor. Late in 1986, Schaeffer was appointed State Commissioner of Veterans and Military Affairs; and Marie Greene, President of Maniilaq Association, was appointed acting mayor until an election could be held. In late February 1987, Charles Greene, Jr., was elected borough mayor. The NAB Charter Commission began meeting in January 1987 to formalize the aims and organization of the new borough; this process is still underway in 1989. As of 1989, the NAB has chosen to constrain its powers and programs to education, tax assessment and collection, and land planning and regulation responsibilities permitted under Alaska Statutes, based on the premise that "less is better" until other needs, and revenues to address them, arise in the future. The NAB has elected to defer tax assessment and collection and, in lieu of taxes, receives annual payments from Cominco-American Inc. for mineral extraction at the Red Dog mine. The NAB has assisted local governments with audits to help them avert financial crises

due to misallocated or misplaced funds, and otherwise has gradually assumed regional planning roles through comprehensive socioeconomic surveys and negotiation with local, private, State, and Federal entities over land regulations and conveyances (see Waring and Associates 1988a:194-205).

The creation of the borough and State appointments subsequent to Governor Cowper's inauguration in January 1987 altered the leadership structure of the region, and all evidence suggests that the transitions have been tranquil. Marie Greene has returned to her post as President of Maniilaq, a position she intended to retain. John Schaeffer moved from his position as NANA Corporation President to NAB Mayor, and then to his commissioner position. Willie Hensley replaced Schaeffer as NANA President but then was appointed Senator Ferguson's replacement in the State Senate when Ferguson stepped down for health reasons. Pete Schaeffer of NANA Corporation was named Vice-President and Acting President of NANA Corporation; but at the close of the 1988 legislative session, Hensley returned to NANA Corporation as President. Charles Greene, Jr., has retained his position as NAB Mayor after winning the 1989 mayoral race. Additional information on the NAB appears in Section III.E (The Main Trends of Sociopolitical Change).

III.B. Commerce and Industry

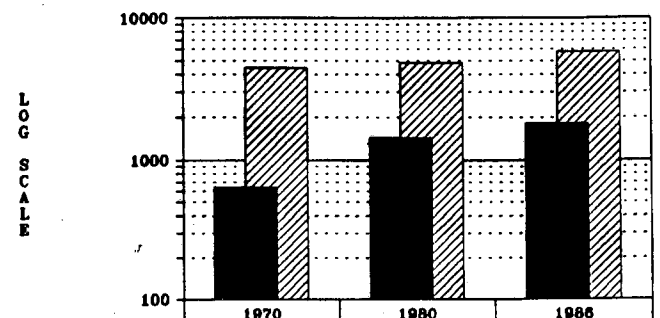
Village-level market, wage, and employment data are not routinely reported by State agencies, so few data on individual communities are available. Based on the most recent village-level economic study in the region (Darbyshire and Associates 1981 as cited in Woodward-Clyde and Associates 1985), about two-thirds of the regional

employment and wages accrue in Kotzebue while the remainder is distributed among the outlying villages. (Data analyzed in Waring and Associates 1988a are more current, but those analyses are not based on primary data from each regional community. The analysis for Kotzebue, however, corrects some of the errors in the Darbyshire survey.) Although the patterns portrayed here have obviously changed over the last 5 years, comparable data for a more recent interval are unavailable as this report goes to press. Waring and Associates (1988a and b), McNabb (1989), and the unpublished MMS Hope Basin Study (OCS Study MMS 91-0084) supplement the information reported here.

Based on Woodward-Clyde and Associates (1985) and the Alaska Department of Labor (1985), it is evident that the proportional contribution to the regional economic base is highest for local and State government (27.1% in 1980) and construction (22.4% in 1980), followed closely by transfer payments to households (17.6%). If secondary and contributory effects are calculated (in order to estimate the revenues originating in one sector that underwrite activity in another), government sectors account for about 88 percent of all regional income and employment. Based on 1983 figures, the average monthly employment in the NANA region was 1,709, with a range extending from 1,557 (July) to 1,792 (June). The total yearly payroll was $40,765,940, which corresponds to an average monthly wage of $1,986.00. The proportions noted above have declined in the government sectors due to budget reductions after 1984. The amount of decline is unknown, but a recent employment survey for Kotzebue provides data for one sample community (see Tables 7 and 8 below). Employment opportunities in the region have expanded on a relatively consistent basis, but those expansions tend to appear in step

with population increases, leading to little if any sustained expansion in real opportunities (see Fig. 3). Recent analyses of NAB survey results suggest that opportunities established after 1987 (chiefly in Red Dog mine employment) may arrest that historic tendency to some extent, since unemployment declined and employment increased over the 1988-1989 interval, at least in some regional communities (McNabb 1989). Borough survey results are cited later in this report.

Figure 3



NOTE: Graph is to log scale.
Source: Alaska Department of Labor; U.S. Census Bureau.

The distributions of occupations and full-time equivalent (FTE) employment for our sample communities are depicted in Table 5. More specific occupational breakdowns are available for Kotzebue. Table 6 describes the distribution of all jobs (not FTE) by industrial area for 1980.

Sources of employment subject to disclosure regulations that are unreported (e.g., self-employment, commercial fishing) constitute a relatively minor contribution to the regional economy, although some individuals rely on such incomes. Recent annual fisheries incomes (aggregated) ranged from about $2 million to $3 million for the entire region.

Table 5

OCCUPATIONAL DISTRIBUTIONS AND FTE EMPLOYMENT IN THE NANA REGION, 1980

Occupation	Buckland	Deering	Kivalina	Kotzebue
Proprietors	3	3	6	51
Administration	5	6	3	165
Professional/Technical	8	10	11	350
Clerical/Sales	4	4	6	205
Skilled Crafts	6	5	12	137
Service	3	4	5	124
General Labor	8	8	6	167
TOTAL	37	40	49	1,199

Sources: Darbyshire and Associates 1981, Woodward-Clyde and Associates 1985.

Table 6

DISTRIBUTION OF JOBS BY INDUSTRY IN KOTZEBUE, 1980

Industry	Total Jobs
Natural Resource Production	98
Mining/Exploration	18
Construction	285
Household Manufacturing	9
Transportation	112
Warehousing/Distribution	23
Communications/Utilities	40
Trade and Private Services	272
Finance and Real Estate	44
Quasi-Public/Nonprofit	116
Local/Regional Government	367
State Agencies/Services	62
Federal Agencies/Services	93
TOTAL	1,539

Source: Woodward-Clyde and Associates 1985.

Table 7

AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY INDUSTRY IN KOTZEBUE, 1988

Industry		No. of Employees		Percent of Total
Agriculture, Forestry, and Fishing		8.0		1.0
Mining		1.0		0.1
Contract Construction		8.0		1.0
Manufacturing		5.0		0.6
Transportation, Communication, and Public Utilities		97.0		12.0
Trade		106.5		13.1
Finance, Insurance, and Real Estate		19.0		2.3
Services		191.0		23.6
Government		374.5		46.2
Federal Government	94.5		11.7	
State of Alaska	85.5		10.6	
Local Government	194.5		24.0	
TOTAL		810.0		100.0

Source: Waring and Associates 1988a:161.

Table 8

AVERAGE ANNUAL FULL-TIME PUBLIC EMPLOYMENT IN KOTZEBUE, 1988

Employer	No. of Employees
Federal Government	
FAA Flight Service	11.0
National Park Service	9.5
Postal Service	7.0
Public Health Service	56.0
Fish and Wildlife Service	6.0
Bureau of Land Management	1.0
Weather Bureau	3.0
Marine Advisory Program (Univ. of Alaska)	1.0
Subtotal	94.5
State Government	
Alaska Army National Guard	31.0
Alaska Court System	7.5
Alaska State Troopers	6.5
Department of Motor Vehicles	0.5
Chukchi Community College	16.0
Department of Law	2.0
Department of Commerce and Regional Affairs	3.0
Department of Fish and Game	10.0
Job Service	2.0
Division of Family and Youth Services	4.0
Fish and Wildlife Protection	1.0
Legislative Affairs/Governor's Office	2.0
Subtotal	85.5
Local Government	
City of Kotzebue	69.5
Northwest Arctic Borough	11.0
Northwest Arctic School District	105.0
Northwest Inupiat Housing Authority	9.0
Subtotal	194.5
TOTAL	374.5

Source: Waring and Associates 1988a:161.

These figures do not account for expenses that often match or even exceed individual incomes (see Jorgensen and Maxwell 1984 for an analysis of commercial fishing in Norton Sound). The overall contribution of all cash-based harvesting activities in the region, including fishing, reindeer herding, timber, and agriculture, was 1.5 percent of all regional income in 1980 (Woodward-Clyde and Associates 1985:29-30).

More recent data are available for Kotzebue. Table 7 provides a breakdown of Kotzebue employment in 1988 by industrial sector, based on a comprehensive employer survey carried out by Ed Busch and Steven McNabb (Waring and Associates 1988a). Table 7 is accompanied by Tables 8 and 9, which organize FTE employment data by public and private sectors, respectively. Employment has dropped over the 8-year interval between the Darbyshire and Associates and Waring and Associates enumerations, according to the cited figures. But the Darbyshire figures are certainly inflated, since the employment count exceeds the size of the 1980 work force (see Waring and Associates 1988a:141-143). Since no point-by-point (or even overall) comparison is plausible, a comparison of relative proportions of jobs by sector may be the only valid use of the Darbyshire data. Such a comparison confirms self-evident predictions: Federal-Government employment is dropping in line with general Federal cutbacks, and local government and trade sectors show clear declines that are undoubtedly linked to the primary and secondary effects of State revenue declines.

Other data illustrate the role of public-sector employment. Refer to Exhibits 7, 21, 35, and 49 in Appendix A, which provides selected charts and tables for study sites

Table 9

AVERAGE ANNUAL FULL-TIME PRIVATE EMPLOYMENT BY INDUSTRY IN KOTZEBUE, 1988

Industry		
Agriculture, Forestry, and Fishing		
Locally based commercial fishermen		8.0
Subtotal	8.0	
Mining		
Cominco-American, Inc.		1.0
Subtotal	1.0	
Contract Construction		
Gallahorn Enterprises	2.0	
Wayne Drake Contractor		6.0
Subtotal	8.0	
Manufacturing		
Arctic Sounder Newspaper		3.0
NANA Seafoods		2.0
Subtotal	5.0	
Transportation, Communication, and Public Utilities		
Alascom, Inc.		2.0
Alaska Airlines		7.0
Arctic Lighterage		11.0
Baker Aviation		14.0
Cape Smythe Air Service		7.5
KOTZ Broadcasting	8.5	
Kotzebue Cablevision	1.0	
Kotzebue Electric Association		14.0
Mark Air Cargo		4.0
Northwestern Aviation	1.0	
OTZ Telephone Cooperative, Inc.		13.0
Ryan Air	1.0	
Shellabarger/Bering Air		13.0
Subtotal		97.0
Trade		
Alaska Commercial Company		32.5
Arctic Bookstore		1.5
Arctic Circle Parts		1.0
Arctic Dragon Restaurant		2.5
Aurora Chicken Coop	3.0	
Eon, Inc.	7.5	
Hanson's Store		31.0
Mike's Sport Shop		2.0

Industry		
Trade (continued)		
Pizza Hut		4.0
R & S Stores/Yellow Cab		12.5
Rotman's Store		7.5
Satkut Sports Shop		1.0
Uutuukuu Store		0.5
Subtotal		106.5
Finance, Insurance, Real Estate		
National Bank of Alaska		6.0
Kikiktagruk Inupiat Corp.		10.0
NANA Regional Corporation		
Nulukvik Hotel		
Museum of the Arctic		3.0
Subtotal		19.0
Services		
Churches		6.0
E & N Auto		1.0
Alaska Airships		2.0
Alaska Legal Services		2.0
Arctic Cab		2.0
Arctic Hare Beauty Salon		1.0
Arctic Plumbing and Heating		3.0
Arctic Travel		2.0
Kotz Beauty and Barber Shop		1.0
Kotzebue IRA		6.0
Kotzebue Lions' Club		2.0
Manilaq Association		153.0
Manilaq Manpower		3.0
Midnight Sun Cab		2.0
Private Attorney		2.0
Tucker Heating		3.0
Subtotal		191.0
TOTAL		435.5

Source: Waring and Associates 1988a:162-163.

based on the 1989 NAB survey. This survey targeted the regional work force (all residents age 16 and over) and achieved a sample of about 90 percent in outlying villages and about 22 percent in Kotzebue. Exhibits 7, 21, 35, and 49 disclose breakdowns of principal employers for sample respondents. Public-sector employers account for the majority of employers, particularly in the outlying villages. Kotzebue, despite its status as an administrative hub for most public-sector activity in the region, claims a relatively smaller share of public-sector employment, mainly because the private sector is more developed there.

Local retail prices are comparatively high due to high transportation costs, long and erratic lines of supply, and limited warehousing space for volume purchases. A comparison of retail prices for a market basket of selected goods was assembled during 1987 and duplicated in 1989. Price changes for each sample village are shown (as percentages) in Table 10. Most goods can be purchased for less in Kotzebue than in the smaller villages. Several factors common to hubs (like Kotzebue)--including greater levels of competition among several stores, bulk storage facilities, bulk wholesale purchasing power, and lower transportation costs--account for most differences between Kotzebue and the outlying villages.

The price fluctuations over 2 years cannot be explained systematically, and even store owners or managers are uncertain of the reasons for sometimes immense decreases and increases. Two factors responsible for shifts include wholesale volume and brand accessibility. Local retailers who encounter cash flow, transportation, or warehouse space problems may not be able to buy in volumes sufficient to bring prices down to

Table 10

RETAIL PRICE CHANGES (PERCENTAGES) IN NANA REGION SAMPLE COMMUNITIES, 1987-1989

Commodity	Buckland	Deering	Kivalina	Kotzebue Store 1	Kotzebue Store 2
10 lb white flour	+ 2.0	- 1.7	- 48.1	+ 29.7	- 6.2
12 oz evap. milk	0.0	0.0	0.0	+ 6.7	+ 6.7
1 lb onions	- 8.2	+ 20.0	- 11.0	+ 33.9	- 17.8
48 oz cooking oil	+ 38.4	+ 60.8	+ 30.8	+ 35.9	+ 25.9
6-pack cola	0.0	- 5.3	0.0	- 17.1	0.0
10 lb gran. sugar	+ 0.7	+ 16.6	+ 20.4	+ 3.9	+ 16.0
18 oz corn flakes	+ 13.0	+ 12.3	+ 14.1	+ 12.8	+ 18.2
24 oz white bread	+ 20.5	+ 11.3	n/a	- 9.2	+ 17.8
1 lb bacon	+ 13.6	- 54.3	+ 2.9	- 6.5	- 12.6
3 lb coffee	+ 13.6	- 16.1	- 40.2	+ 12.1	- 8.2
1 lb butter	+ 29.7	- 57.7	+ 26.8	0.0	- 15.8
12 qt powd. milk	- 3.5	+ 6.4	- 0.7	- 8.0	- 1.2
22 oz punch mix	- 14.6	- 16.5	- 21.0	+ 33.9	- 20.9
2-pack D batteries	+ 21.2	n/a	- 17.1	+ 16.7	+ 48.6
1 gal Blazo	- 3.8	n/a	+ 14.1	- 64.3	n/a
35 hp Evinrude	n/a	n/a	n/a	+ 24.7	n/a
Ax handle	+ 38.1	n/a	n/a	+ 16.0	n/a
1 gal reg. gasoline	n/a	+ 10.0	+ 2.1	n/a	+ 6.1
1 qt motor oil	+ 24.5	n/a	+ 50.2	+ 37.7	+ 3.6
16 ft skiff	n/a	n/a	n/a	- 7.8	n/a
Coleman lantern[a]	n/a	n/a	+ 26.4	+ 41.2	n/a
Diapers 12	+ 6.6	+ 35.6	+ 49.6	- 24.5	+ 29.6

Source: Social Indicators Study field notes.

Note: Store 1 and Store 2 refer to two Kotzebue stores.

[a] Double mantle.

prevailing levels, leading to sporadic and unpredictable price increases. Similarly, retailers may evade those problems and then have the capacity to sell at lower prices, leading to sporadic and unpredictable price decreases. Retailers also note that rural consumers often have strong brand loyalties[6] that the retailers seek to satisfy. But when preferred brands are not accessible over the short term, other products will be purchased at higher or lower costs. Our observations also show that retailers seek to clear shelves and attract buyers with temporary loss leaders (products sold at or even below cost). Loss leaders also will produce sporadic and unpredictable price changes, especially since loss leaders are often teamed with price increases on other items so that the retailer can compensate himself or herself for the loss. These factors probably are the leading causes of the fluctuations evident in the price comparisons, and we infer that these fluctuations are more severe in rural areas due to the limited choices consumers have. In other words, if there are more goods on the shelves, there are more ways for fluctuations to be absorbed across the board. In rural Alaska, there are fewer goods on the shelves.

It also is possible that the dynamics of consumer credit in small communities affect these price fluctuations. For example, some stores extend credit to steady customers in order to preserve customers; but this practice may encourage higher prices because consumers ultimately pay for at least some of the losses from credit defaults. If those defaults do not occur uniformly over the calendar and retailers face other cash-flow problems, price fluctuations may occur.

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[6] One key informant in Kotzebue mentioned that brand loyalties may be particularly strong for certain commodities, like coffee, but nonexistent for other goods. Brand loyalties are common in all markets, of course.

Typical costs for labor services in the NANA sample communities also were calculated for 1987 and 1989. Comparisons across this interval are presented in Table 11. Note that the fluid labor rates for the outlying villages are unchanged, so two columns are used to depict changes in Kotzebue. It is immediately evident that there is virtually no basis for expectations of stable employment or compensation rates on the part of potential employees in the outlying villages. There is, in other words, no clear and unambiguous "standard" for employment terms or rates of pay. All KI's agreed that rates for skilled and semiskilled occupations were completely dependent on market conditions that are mainly created by State and Federal transfer patterns. Grants and contracts provide the impetus for capital improvements and construction activity with varying rates of pay. One informant, a carpenter in Kivalina, noted that "We get whatever we get." A KI in Buckland explained that: "We might get paid union scale one week, but when that project finishes there is nothing. Then, we'd be happy to work for half if somebody around here had some work to do."

There are only modest volumes of private-sector work in these categories that KI's recognize as "typical" jobs. A skilled mechanic in Deering noted that, aside from subsidized jobs that might pay union scale, he can "sometimes" command $10.00 per hour for his labor on local temporary repair jobs for friends and neighbors. In Buckland, carpentry repairs on the local store pay $18.00 per hour, but such jobs are intermittent.

The intermittent and unstable nature of most employment also is illustrated by NAB survey data (see Exhibits 4, 5, 6, 18, 19, 20, 32, 33, 34, 46, 47, and 48 in Appendix A). According to the results of the 1989 NAB survey, seasonal, temporary,

Table 11

LABOR PRICE COMPARISONS, SAMPLE COMMUNITIES, 1987 AND 1989

Labor Type	Buckland	Deering	Kivalina	Kotzebue-1987	Kotzebue-1989
Motor Repair	[a]	[a]	[a]	$35/hr.	$25.79/hr.
Net Hanging	[a, b]	[a, b]	[a, b]	[a, b]	$50/shackle
Spot Welding	[a]	[a, c]	[a]	$30/hr.	$30/hr.
Rough Carpentry	[a]	[a]	[a]	$25/hr.	$15-$17/hr.
Plumbing	[d]	[d]	[d]	$30-$40/hr.	$28.91/hr.
Electrical Repair	[a]	[a]	[a]	$35/hr.	$28.37/hr.
Native Healing	[e]	[e]	[e]	[e]	[e]

Source: Social Indicators Study field notes.

[a] No standard rates.
[b] Service is rarely needed (nets are purchased prehung).
[c] Equipment can be rented from the city for $5.00 per day, but labor charges are not included.
[d] Sewer and water services are limited or nonexistent.
[e] No standard rates; charges are negotiated informally, may be settled by barter rather than by payment, or may be forgiven.

and part-time jobs comprise the majority of all jobs except in Kotzebue, limited employment opportunities are seen as a leading reason for unemployment in all communities except Kotzebue, and the main reason for job terminations is the temporary duration of many jobs. Additional detail on employment, income, and unemployment is available in Exhibits 8 through 14, 22 through 28, 36 through 42, and 50 through 56 in Appendix A. Despite some modest gains apparent in NAB survey data, economic circumstances remain fairly grim. Over 20 percent of the workforce was unemployed for

the entire 12-month period targeted in the NAB survey; the survey employed the formal Department of Labor (DOL) definition of unemployment (i.e., persons without work who were actively seeking work, waiting to start a job, or waiting to return to a job--for instance, as a result of illness), so "discouraged unemployment" is not included here. Generally, however, the overall trend in most communities seems to be a modest decline in unemployment over 1989.

Private-sector work in outlying villages is rarely compensated at standard rates. On the contrary, work for intimate friends and neighbors is not suited to fixed rates because reciprocity and mutual assistance characterize exchange in that setting. Most key informants were reluctant and even resistant to establish rates for this labor. In a discussion of spot-welding work in Buckland, a KI finally terminated the prompting and probing of the field researcher by declaring: "You just have to understand. We're helping each other. You might not get paid. Maybe you do. But we don't know how much." Reciprocity and resistance to fixed rates of exchange are most evident in the area of Native healing. Some KI's registered distaste at the very notion of standard payments for services rendered. We can best convey the prevalent attitudes by characterizing healing exchanges as exchanges of gifts in which the labor is not seen as a commodity. This specific example is unusual in that few persons possess the healing skills--skills that are not available in any recognized market. Maniilaq Association does sponsor traditional healers' visits to some communities, and the healers are in fact paid by Maniilaq Association. Generally, however, healing does not fit customary market assumptions, although healers may be compensated with gifts, money, food, or labor.

Other labor (carpentry, electrical repair, and so on) is often given for free, but that labor is considered a commodity far more often than is healing.

The development of the Red Dog lead-zinc mine in the northwest portion of the region is expected to provide the major tax base for the NAB as well as an important source of jobs for residents. Cominco-American Inc., General Crude Oil, and NANA Development Corporation (a subsidiary of NANA Corporation) own the main mineral interests at the site. Cominco-American Inc. will exercise management and fiscal responsibilities for actual site operations, and the distribution of profits to the three parties is a proprietary issue on which we cannot comment.

The NAB revenues that will be generated through property taxes are uncertain (see discussion of NAB above; assessment and taxation is indefinitely postponed because the NAB receives payments in lieu of taxes); and the agenda of mine development is contingent on numerous factors, including world market prices for zinc. The operation provided 200 to 300 jobs during the construction period that, according to NANA-Cominco-American Inc. agreements, were offered first to qualified NANA residents. Records for the construction phase are somewhat ambiguous, but local hire actually comprised less than 50 percent at most times. Some port infrastructure was installed at the time of the 1987 field season, and road construction began in summer 1987. Enserch Inc. was awarded the road-construction contract, which accelerated after supply and fuel barges arrived at the port site on July 5th of that year. According to KI's, the first ore-crushing operations that opened the production phase began in late 1989. Some institutional KI's forecasted that Red Dog mine jobs may stabilize during the production

phase since transient or cyclic hiring and rehiring, which can be accommodated during construction phases, will be less feasible during production. The mine jobs may therefore become a relatively fixed opportunity that, once secured by a core of committed workers, will not open up often for other job seekers. It is, however, too early to evaluate this hypothesis.

III.C. Health, Education, and Social Services[7]

Separate agencies are nominally responsible for each major category of services--health, education, and other social services. In some cases multiple agencies handle services in a single category, due either to specialization by consensus or to funding patterns that place federally sponsored services in one agency and State-funded services in another. However, since 1979 (and especially since 1985) the integration of services on a regional basis and under centralized authority has accelerated. For these reasons this discussion describes all services combined, placing emphasis on new forms of integration rather than on the agencies themselves.

A consortium of regional institutions composed of NANA Corporation, Maniilaq Association, and the Northwest Arctic School District (or NWASD) embarked in 1979 on a regional planning program supported by State funds. Designated the Regional Strategy

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[7] Please refer to Exhibits 2, 14, 16, 28, 30, 42, 44, and 56 in Appendix A, which provide data from the 1989 NAB survey. These exhibits display data on education background and social service utilization, as well as subjective opinions and judgments about community needs that are pertinent to this section. The respondent sample comprises persons 16 years of age and older, so the educational achievement figures cannot be generalized to the population at large. Interestingly, most respondents feel safe in their home communities, do not claim to use social services (such as mental health and family assistance), and are optimistic that economic opportunities will be sufficiently abundant in the future. Partial tables that separate employed and unemployed respondents reveal no statistically significant differences in most cases, hence the chronically unemployed are no more or less optimistic than their employed neighbors. Clearly, some responses may be unreliable or invalid due to reactivity and acquiescence.

Program and administered through Maniilaq, the consortium sought to ". . . provide a mechanism to tie together programs in the region, including Coastal Management, so that projects are formulated as an integrated set, consistent with the goals, objectives, and policies of the region" (Maniilaq 1979:1). The Regional Strategy Program was organized as a consensual decision-making apparatus designed to encourage public opinions about community needs on a broad front, to identify objectives that meet with the greatest public support, and to foster community and agency commitment to those objectives. Next, it sought to consolidate agency responses to these needs so as to increase efficiency and integration among all agencies. A Health, Education, and Social Services Task Force (HESS) was created to oversee these activities in the services area. The HESS Task Force has customarily mobilized great support for health and social services advocacy efforts as well as programs, due in part to the virtually unanimous concern among institutional staffs and governing authorities as well as residents about pressing health and social problems (which also were key motivating forces for the creation of Iñupiat Illitqusiat; see below).

The KI's generally agreed that the Regional Strategy Program has increased service planning and delivery efficiency; however, it is impossible to formally assess these efficiencies since no controlled pre- and posttest measurements are possible. The design of the program itself eliminates some common sources of inefficiency, though. For instance, the Regional Strategy Program:

- Provides a common and comprehensible set of objectives and procedures that are familiar to residents, advocates and special interest groups, planners, and service delivery staff;
- Provides clear and workable procedures for constituents to apply political pressure on decision-makers;
- Provides a common set of planning priorities established by consensus that counterbalance the typical capacity for overlapping and competitive functions among providers, which is encouraged by shifting sources of soft money; and
- Provides a common set of priorities that also encourage coordination among providers, which is necessary in order to eliminate piecemeal programs that also result from short-term, erratic discretionary funding.

(The problems associated with reliance on a range of disparate and discontinuous discretionary funds by Native American service providers in other areas is well documented. For instance, see McCarty [1987:105-106] for a recent analysis of this dilemma.)

The members of HESS continue to represent the key service agencies in the region: Maniilaq, NWASD, and the Public Health Service (PHS) hospital. State representatives of the Department of Health and Social Services are periodically involved; however, their share of all services provided is low. Although the Regional Strategy Program and HESS have no vested authority to make policy in the service area, they are the de facto policy body. Since 1979 these bodies have coordinated virtually all services in two ways: they have established guiding policies designed mainly to specify

new goals and target populations for member agencies; and they have recommended programmatic changes, such as staffing and allocation modifications.

Since 1985 the integrative process has accelerated. Maniilaq has anticipated the assumption of Indian Health Service (IHS) inpatient services for several years, but neither funds nor full administrative approval were available until recently. Beginning in 1987, the Maniilaq Board began the first phase of assumption, beginning with specialized board training and an administrative and finance review of the Kotzebue Service Unit operation. Funds to carry the assumption through the remaining phases have been committed by PHS; but as of January 1987, delays by PHS had slowed the schedule and prompted the Maniilaq Board to become more aggressive in securing necessary Federal funds. On July 1, 1988, Maniilaq Association assumed formal control of the IHS hospital. All hospital employees are now Maniilaq employees, and Maniilaq exercises administrative and financial authority over primary health care. But substantial facility and program planning is still under way (note that the new hospital facility will not be finished before 1992). When the transition is complete, Maniilaq will oversee all public medical and most social services in the region; however, it is possible that some services will be assumed by the NAB.

The assumption of inpatient services by the regional tribal organization is authorized by Public Law (P.L.) 93-638 (The Indian Self-Determination and Education Assistance Act), which also is the vehicle for contract provision of other health services previously delivered by IHS, such as field health services (Community Health Aide and Emergency Medical Services programs) and ambulatory medical and dental care. At the

present time only four service areas (Kotzebue-Maniilaq, Norton Sound, Bristol Bay, and Mount Edgecumbe) have completely assumed inpatient care services in addition to the other classes of service. (The Kotzebue-Maniilaq assumption, though formally complete, is so recent that administrative and programmatic arrangements are still being finalized.) The impetus for the assumption of the full range of services is twofold: on the one hand, P.L. 93-638 responds to frequent and profound demands by Natives for local control of institutional services, yet on the other hand massive IHS budget cuts introduced in Reagan's first (and subsequent) budgets have required the Alaska Area Native Health Service (AANHS) to advocate and assist assumption efforts by local health authorities as a way of decentralizing and eventually eliminating a large part of the IHS bureaucracy. The AANHS now maintains a specific unit (Regional Health Development Program) within the Patient Care Standards Branch that is devoted to the coordination of assumption efforts throughout the State.

The NANA region's assumption of inpatient services stands in contrast with service provision in the North Slope Borough. On the North Slope, however, no comparable tribal health organization now functions. All IHS services there are provided under a standard procurement from the North Slope Borough (rather than a P.L. 93-638 contract); hence, the impetus and justification for local assumption is somewhat diminished.

It is impossible to assess the implications of Maniilaq Association's assumption of inpatient services at this time because the process is not yet complete (the new hospital facility has not yet been built, and Maniilaq has not yet established a track record for

inpatient administration). However, judging by the experience of the other regional authorities that have assumed all services, the prospects in the NANA region are good. Service planning is splintered in the Bristol Bay and Norton Sound areas; and factionalism and board/staff feuds in the Norton Sound case inhibit efficient, rational, pro-active planning and delivery, according to anecdotal, KI, and proprietary data. By comparison, these problems are rare in the NANA region, which has a reputation for integration.

The second major integrative factor is the creation of the NAB in 1986. The authority of the Northwest Arctic School District was ceded to the borough at that time. Since Maniilaq Association, NANA, and the borough are so closely aligned, the umbrella of services that previously had been integrated on an informal basis by the Regional Strategy Program is now much closer to formal administrative integration. The status of the Regional Strategy Program per se is uncertain at this time. Although the continuation of the regional strategy concept was ratified at the last regional strategy conference (November 1986), the program was assumed by the borough. Since the consolidation that the strategy encouraged is now an institutional fact, the future role of the program is unclear. But NAB KI's assure researchers that the regional strategy continues as a planning framework, even if that title is now used less often.

During the 1970's representatives from major institutions met informally to seek consensus on issues of mutual concern; this process became institutionalized in most of the collaborative efforts and joint programs--notably the Regional Strategy Program--described above. These joint meetings continued during the period of most intense

regional strategy activity and have not abated despite the formation of the NAB. In fact, they have crystallized in yet another semiinstitutional form: the Quad Board. We must emphasize that the Quad Board is not a new phenomenon; rather, it is a newly coined term for a process that, in general outline, has been operating for about a decade. This board consists of representatives from Maniilaq Association, NANA Corporation, NAB School District, and the NAB. Regional elders, represented by the Elders Council, also may participate. The continuation of this body and its emergence as an institutional organization demonstrates the persistence of regional Iñupiat in seeking consensus both within and outside formal organizations on issues of regional concern that, given the prevailing regional ideologies, require multiple commitments from numerous organizations and unified approaches to local needs. The Quad Board is described in Waring and Associates (1988a:205-210).

The programmatic goals that the Health, Education, and Social Services Task Force has most recently discussed can be placed in three main categories: wellness and self-help promotion; immediate responses to crisis situations; and aid for high-risk groups with chronic service needs. Examples for the first category include ongoing support and new proposals for:

- Nutrition and infant health programs;
- Wide-ranging self- and peer-help health; and
- Rehabilitation, and counseling programs operated out of the Sivuniigvik retreat camp on the Kobuk delta.

Examples for the second category include:

- Development of networks of crisis counselors in each community to aid in suicide prevention; and
- Development of a formal Crisis Intervention Response Team (CIRT) operated out of Kotzebue.

Examples for the third category are services designed mainly for senior citizens, ranging from nutrition programs to homemaker assistance.

A nursing wing for the Kotzebue Senior Citizens' Center opened in April 1989, culminating over 2 years of planning. This wing provides 24-hour nursing care for up to nine senior citizens (NUNA 1989a). The Putyuk Prematernal Home is now in operation, providing prematernal services for all residents but focusing on teens. Caseloads have increased dramatically during the 3 years of operation: 17 teen clients during 1987, 18 during 1988, and 28 during the first half of 1989 (NUNA 1989c). The Sivuniigvik Social Rehabilitation Center (SRC), however, suffered a massive cutback from $395,000 for FY 1988 and $430,000 for FY 1989 to $180,000 for FY 1990 (NUNA 1989b). The Alaska Department of Corrections, which provides the most support for the SRC, has decreased funding due to high unit and per client costs and low client caseloads. As of 1991, funding for the SRC was a source of legislative and administrative friction; and Governor Hickel eliminated funding for the SRC in June.

Most local and regional institutions affiliated with historic Regional Strategy Programs or the Quad Board also have supported political solutions to health and social problems, notably in the area of alcohol abuse. Kotzebue has enacted a tough bootlegging statute, now being challenged in the courts, that makes illegal importation

and sales of alcohol a felony. Thirty-one alleged bootleggers were arrested during a sting operation in summer 1988 (Tundra Times 1988); some of those defendants brought suit to declare the statute unconstitutional on the grounds of discrimination (i.e., a person committing the crime in another area would not face felony charges).

Health, employment and training, and other service programs blossomed in the early 1970's as a result of nationwide increases in funding for Great Society and War on Poverty policies, and later as a result of immense state transfers funded by Prudhoe Bay oil revenues. These trends gradually reversed starting with Reagan's first budget in 1981, when Comprehensive Employment and Training Act (CETA) funds were slashed. The reversal accelerated in the early 1980's. Regional service providers recognize that funds from either State or Federal sources cannot support the historic level of services to which they and their clients have become accustomed, at least over the short term. Fiscal retrenchment is undoubtedly an important factor that encourages the emphasis on self-help and health promotion rather than direct service, and on aid to high-risk target populations.[8]

The regional strategy process seeks opinions and consensus about services at all levels (residents, service providers, agency administrators, staff from other agencies); and so it is fair to view service goals (see previous discussion: wellness and self-help promotion, immediate responses to crisis situations, and aid to high-risk groups with chronic needs) as regional "desires" that span agencies and residents. The first two categories of service goals or priorities deal implicitly with highly visible problems, such

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[8] Regional institutions will undoubtedly advocate for increased support in these areas as part of the "National Indian Legislative Agenda" instigated by Senator Daniel Inouye (Alaska Federation of Natives 1991).

as alcohol abuse and domestic (family) dysfunction both directly (counseling and medical services) and indirectly (proactive youth and family services designed to encourage healthy lifestyles and decision-making). But, to date, a coherent and broadly supported plan for alcohol services has not yet evolved. Maniilaq Association has offered outpatient alcohol services in conjunction with staff at the hospital for about 10 years, and inpatient services have been available at the Maniilaq facility on a sporadic basis (the inpatient facility has been opened and closed on an intermittent basis for over 5 years). Our best understanding of the situation is that treatment approaches and models have been tried, combined, and tried again--none with strong support yet from staff and residents, and that now the aim is to develop an approach with both support and a potential for continuity.

A general listing of services and facilities is presented in Table 12. It is important to recognize that because services (such as utilities, cable TV, and so on) are available does not mean that they are universally adopted by residents. Some services are expensive, and household use may fluctuate according to temporary economic conditions (a telephone may be connected one year and disconnected the next). Some residents never contract for some services, such as telephones (note that CB--citizen's band--radios are often used in rural Alaska instead of or as an adjunct to telephones). Telephone densities in sample communities are: Buckland, 54 percent; Deering, 117 percent; Kivalina, 73 percent; and Kotzebue, 171 percent. (Hence, the number of telephones in Buckland is equivalent to 54 percent of total households, and the number in Kotzebue is equal to nearly 200 percent of total households, due in the latter case to the larger

number of commercial and multiple connections. These figures are based on proprietary telephone-utility data.)

Table 12

SERVICES AND FACILITIES IN NANA REGION SAMPLE COMMUNITIES, 1987 AND 1989

Service	Buckland	Deering	Kivalina	Kotzebue
Health clinic	yes	yes	yes	hospital
Sewer system	[a]	[a]	[a]	yes
Family counseling	yes [b]	yes [b]	yes [b]	yes
State police	VPSO	VPSO	VPSO	yes
Jail[e]	1 cell	2 cells	2 cells	yes
Schools (grades)	K-12	K-12	K-12	K-14
Gymnasium	1 [c]	1 [c]	1 [c]	3 [d]

Source: Social Indicators Study field notes.

[a] Available only at community laundry/shower facility.
[b] Maniilaq staff.
[c] School gymnasium open for public use during specified hours.
[d] Provided by four gyms in 1989.
[e] Outside Kotzebue, temporary holding cells are listed. These are not "jails" per se.

Brief interregional comparisons of health-service-utilization data are provided in the KI Summary Introduction.

III.D. Sodalities and Associations

As social organization becomes increasingly complex and bureaucratic, there is often a proliferation of voluntary associations that have specialized social, recreational, humanitarian, or civic goals. Such organizations may fulfill pressing public and individual

needs in a social context that is increasingly compartmentalized. This thesis is central to much of modern structural sociology: social constraints cause purposive organizations (for example, sodalities) to evolve and respond with strategies that "work around" those constraints in the social system (cf. Burt 1982:219). Simple examples of such bodies include civic associations, clubs, and professional organizations.

In many cases, new kinds of social organization evolve in order to make new institutions viable. Many key informants in the study area have pointed to the irony that in order to secure funding for a new facility or service and to stay in compliance with rules and policies regarding that facility or service, a local steering committee or board must be developed. Hence, as services expand and proliferate, so also do boards, committees, and advisory groups that oversee service provision. This process occurs independently of the development of special-interest organizations that evolve in order to satisfy needs that existing institutions ignore--the focus of the above introductory paragraph. Together, these processes magnify and expand the roles of voluntary associations and sodalities in the study area.

The proliferation of special-interest organizations can be seen as a sign of community vitality and participation, but it is unlikely that the process can continue indefinitely without encountering a point of diminishing returns. The author observed that one of the first objectives of the Regional Strategy Health, Education, and Social Services Task Force in 1979 was to inhibit the creation of numerous boards, committees, and special-interest associations, based on the belief that the proliferation of these

organizations sapped the limited human resources of committed leaders and encouraged secular special interests and fragmentation in regional communities.

A partial listing of formal sodalities in the region follows, excluding bodies with essentially political roles or those that are wholly attached to the dominant political entities in the region:

- Native Women of NANA
- Women in Crisis Project Board
- Teen Center Board of Directors
- Teen Center Youth Board
- Chamber of Commerce
- KOTZ Radio Station Board
- Lions Club
- Mothers Club
- Dog Mushers Association
- Iñupiaq Language Commission
- NANA Museum of the Arctic Board
- Volunteer Fire Department
- Quarterly Meeting Board (Friends Church)
- Church of God Womens Auxiliary
- Kotzebue Churches Council
- Kotzebue Motor Mushers
- Sportsmen's Club

- Northern Lights Dancers
- Elders' Conference Board
- Trade Fair Board
- Kotzebue Sports Association (includes sports league teams representing the Latter-Day Saints, Hansen's Company, Alaska Commercial Company, Rotman's Store, Baker Aviation, Arctic Lighterage Company, Value House Company, and KIC)
- Arctic Circle Reading Council
- Maricopa Club
- Search and Rescue
- Alcoholics Anonymous
- Boy and Girl Scouts

Some of the groups named are governing authorities, but they were included here since their activities have important social dimensions that are clearly separate from formal "business." These sodalities existed in both 1987 and 1989.

It is likely that the task force goal of inhibiting numerous new organizations was inverted: proliferation is a symptom rather than a cause. But the perception of increasing insularity that is mirrored in dozens of specialized bodies and that may hamper unified efforts to deal with common problems is acute (however, we must stress here that the regional strategy is an explicit process that provides a common forum for diverse interests that, to date, has effectively managed these potential problems).

Ironically, some relief may derive from current budget cutbacks. Some KI's suggested that small, subordinate organizations have withered due to a lack of funds in many program areas. In part, the proliferation noted above may have been a symptom of large Federal and State revenue transfers that fueled programs that required governing authorities in order to operate.

This explanation appears skeptical, but it has some truth to it. It cannot be more than a partial explanation, if indeed the number of sodalities and sodality-like committees has declined (a condition we cannot verify). Some observations suggest that sodalities such as these are ephemeral. We lack information on the total numbers and ranges of sodalities over time, but note that the listed sodalities were present in both 1987 and 1989. The traditional partnerships and exchange networks described in Section IV (Household Organization and Kinship) are far more durable in comparison.

III.E. The Main Trends of Sociopolitical Change

Institutional Consolidation: During the 1970's and early 1980's, a variety of specialized administrative, service, and economic institutions flourished in the region. These were both new organizations that emerged for special purposes as well as existing organizations that evolved into specialized subdivisions of separate but aligned bodies. The genesis of public institutions began after World War II, of course; but the process speeded up following the passage of ANCSA. Particularism in functions and authority was checked in part by a regional leadership style that emphasized unity and consensual decision-making (see, e.g., Gaffney 1981; McNabb and Robbins 1985).

The Regional Strategy Program formalized the consensus model that previously characterized informal administrative practices. The strategy marks the beginning of a consolidation phase in regional sociopolitical processes--the consolidation of agency goals established by the strategy was followed by the consolidation of agency operations--evident in the creation of the NAB, the assumption of educational services by the borough, and the assumption of direct medical services by Maniilaq Association. The development of the NWTC, a regional tribal council composed of representatives of each village's IRA, also may reveal consolidation tendencies; however, it is too early to be sure. The regional strategy and borough formation were not the only experiments in consolidation. The establishment of the "Spirit Movement" or Iñupiat Ilitqusiat and the subsequent development of Elders' Committees to provide guidance on all lands, economic, and service issues also represent a tendency toward unification and consolidation (see Sec. V, Ideology).

The trend toward consolidation is only partly an internal, regional reorientation. Massive Federal and State budget cuts in discretionary programs in general and Indian programs in particular have required some measure of programmatic contraction and fusion to preserve essential services. These cuts also have motivated institutions to seek and secure other sources of funds, a process that has just begun (see below).

Revenue Substitution: The KI's noted that during the early 1980's virtually all regional public institutions sought a better balance of State and Federal revenues so that the institutions would be insulated from the erratic shifts and cuts in budgets from either

source. By 1987 it was clear that neither source could provide that insulation even when combined.

State and Federal funding will remain an important fiscal source for the indefinite future because private sources cannot underwrite all essential services and capital improvements. But revenues derived from private-sector activity, notably the Red Dog mine operation, are expected to provide the NAB with indispensable support. The substitution of tax and other private revenues for dwindling public monies is a fundamental change in the NANA region's revenue formula that could alter the historic pattern of service provision and community improvements.

For example, the NAB unveiled its FY 1988 operating budget on May 18, 1987. The budget totaled $21,524,670 for all borough operations, including NWASD schools and all capital projects, which together account for all but about $2,000,000 of the budget. Cominco-American Inc., NANA Corporation's partner in the Red Dog mine operation, paid the NAB $1,250,000 for site-access rights as agreed under the original partnership terms. Hence, private-sector funds underwrote over half of the borough operations not provided for by State categorical entitlement and discretionary funding for schools and capital improvements alone. Put another way, Cominco-American Inc. paid for the entire borough budget reserve for FY 1988 ($1,101,708). Although the borough had the authority to tax residents and businesses, no such taxes were introduced in this budget (Arctic Sounder 1987b:5) and none are planned at this time. Waring and Associates (1988a) tabulated and analyzed more recent NAB revenues and expenditures. The role of Cominco-American Inc. as a revenue source has not changed; for FY 1989

Cominco-American Inc. paid the NAB $1,000,000, or well over half of all the borough's revenues (Waring and Associates 1988a:200).

The NAB is seeking to expand its potential tax base. New boroughs may claim 10 percent of the unreserved, vacant State lands within borough boundaries; the NAB has laid claim to 230,000 acres, including "resource management lands" in the vicinity of coal and other mineral deposits near Deering and Buckland and copper deposits on the Kobuk River (Arctic Sounder 1987a:1). The State currently disputes those claims.

In contrast to public monies that are typically categorical or targeted in advance toward specific needs, borough revenues provide greater flexibility but with lower dollar volumes. Since the revenues will be subject to a more consolidated allocation process (see above), the programmatic results of spending also may encourage the centripetal trends noted in the previous discussion (Institutional Consolidation).

Service Retrenchment: The financial base for regional services is shrinking while the base is simultaneously being restructured. Since NAB support is unlikely to provide the revenues necessary to underwrite services at recent historic levels, these joint trends probably will continue until other sources reverse their current decline. It is unclear when or if that will occur.

The emphasis on self-help, wellness promotion, aid to high-risk populations, crisis care, and innovative solutions to social problems (e.g., the Sivuniigvik retreat) is evidence of service retrenchment. All service agencies are now examining their priorities in the attempt to identify or design essential services that are efficient and effective. Retrenchment represents "belt-tightening" only in part; another dimension of

retrenchment is consolidation and integration, objectives that were set in motion prior to the most recent budget cuts. Wellness promotion explicitly combines education and health services and establishes a common goal, e.g., the Sivuniigvik retreat provides a setting for peer-support aid for a broad spectrum of clients.

The Sivuniigvik retreat is an appropriate example of a multifaceted program that combines the features of each trend described above: institutional consolidation, revenue substitution, and service retrenchment. The Alaska Department of Corrections (ADOC) funded $395,000 for this program in FY 1988, and it is notable that ADOC is not a conventional sponsor of community-based self-help programs (hence, revenue substitution). Termed the Social Rehabilitation Center in the State budget, the retreat is designed to use peer-support and living-skills approaches to rehabilitate a full range of offenders with coping, drug and alcohol, family, and emotional problems in addition to their offense histories. The program works in concert with other regional bodies (especially Maniilaq) in a referral, placement, and treatment network that eases the individual burdens on programs, maximizes scarce resources, and expands the range of potential services for clients (hence, consolidation and retrenchment) (see Arctic Sounder 1987c:17 for budget and sponsor data). (But note that this program was seriously cut in 1990 to less than half its historic budget levels; although the program was funded mainly by the ADOC, the decision to trim the budget was made by the legislature. In June 1991, Governor Hickel terminated funding for this program.)

Entitlement of Youth in the Corporate Structure: This region has exemplified progressive organization, grass-roots development, and idealistic social planning for many

years. Numerous programs and policies described above illustrate concerns shown by leaders and institutional policies for youth, elderly, and at-risk populations. Leaders and their constituents here have grappled with the problems of ANCSA and its amendments for years and have recently attempted to solve one important problem: entitlement of Natives born after the ANCSA enrollment deadline (1971) to ANCSA benefits. The ANCSA amendments do not systematically ensure shareholder status for Natives born after the 1971 deadline, but the 1991 amendments permit corporations to issue stock at little or no cost to descendants of Natives born before the deadline. In 1991, NANA Corporation became the second ANCSA corporation to do so (Arctic Slope Regional Corporation was the first) (Alaska Federation of Natives 1991:13). Since this corporate policy is consistent with a more general trend of enfranchisement and "equal-rights" idealism,[9] it warrants attention here.

IV. HOUSEHOLD ORGANIZATION AND KINSHIP

This section describes domestic social organization in the NANA region in three parts: kinship organization, household structures and economic functions, and socialization.

IV.A. Kinship Organization

The fundamental unit of Northwest Alaskan Iñupiaq social organization in traditional times was the "local family." According to Burch (1980:262; see also Burch 1975:239),

[9] The existence of this trend does not imply that nepotism, elitism, protected privileges, and the like do not exist. Clearly it would be naive to think so. Note that this subsection is concerned with trends of change.

> Most local families were extended lineally for three (occasionally four) generations, and collaterally to include married siblings and often married cousins (frequently to the second degree) on either or both male and female sides. . . . Northwest Alaskan Eskimo local families, in short, were large, bilaterally extended families.

These units commonly occupied several adjacent dwellings for at least part of the year, and the inhabitants of each dwelling are termed "domestic families" by Burch. Intermarriage was common among adjacent local families, who together constituted "demes," or intermarrying sociopolitical groups (Burch 1985:304); thus, endogamy (marriage within the group) was likely more frequent than exogamy (marriage outside the group) among demes. Residence was bilocal (i.e., in the vicinity of kin of either spouse); however, patrilocal or virilocal postnuptial residence was likely more frequent than other postnuptial residence (i.e., near kin of the husband or father) forms. Iñupiaq "communities" (e.g., adjacent intermarrying units) were, for the most part, patridemes.

Primary loyalties and mutual aid centered on the domestic family and only thereafter the local family, affines, and adjacent local families, in that order. Numerous mechanisms existed for breaching boundaries between individuals in other families, including fictive kinship, namesake relations, and trade and exchange partnerships.

Burch (1980, 1984) and others (especially Ray 1964, 1967; Spencer 1984) hypothesized the existence of rigid socioterritorial boundaries between demes during traditional times. Any such boundaries are now essentially eliminated. The Iñupiat recognize lineal and collateral kin through bilateral principles for several generations and degrees, although individuals may not remember or be acquainted with those

kinspersons. Residence is now mainly bilocal, although individual communities may evidence idiosyncratic postnuptial and spouse-recruitment patterns.

Formal kinship remains a central organizational principle that shapes customary patterns of mutual aid and subjective sentiments. Kinship principles are still used to discover, create, or allege social ties that, if present, justify affiliations between persons. For example, distant collateral relationships may be sought by strangers in order to rationalize a friendship. Namesakes are similarly used. Formal partnerships can cement relationships among non-kin that are extremely durable, but partnerships are relatively uncommon today (see Sec. IV.B below).

IV.B. Household Structures and Economic Functions

The numerous collaterals and affines with whom the Iñupiat are bonded are essential members of their social universe, but some economic and larger cultural roles of these kinspersons have become reduced or compressed as some socialization, work, and social-support functions have been assumed by formal institutions. This is not a categorical assertion, nor does it apply to all persons; but the thrust of the claim is supported by the main body of descriptive, ethnographic literature: important symbolic and productive behaviors (such as performance arts and vocational skills, respectively) are often learned in institutional contexts rather than in the home among kin; and care of youngsters, elderly, and the infirm is often delegated to formal institutions. These are not controversial assertions; today children learn in schools, imported professionals (rather than kin) do the teaching, special facilities and technicians take care of many elders, and courts (rather than senior male kin) adjudicate many disputes. (For

information on the compression of traditional kinship roles in contemporary times, and institutional displacement in general, see Anderson et al. 1977; Burch 1975, 1980, 1984; McNabb 1985a; Parker 1962, 1964; Smith 1966; Waring and Associates 1988a.)

Despite the crucial sentimental and economic roles of kinspersons even within this institutional milieu, the fundamental unit of current social organization may now be the residential household. The word "may" is selected since the question is not easily answered, because domestic organization is still in rapid transition.

The availability of housing undoubtedly influences household composition. Prior to the advent of massive housing projects, newlyweds and elderly conjugal pairs typically lived in extended households with their respective parents or children and kin as the case might be. After the 1960's, housing projects that expanded the housing stock in nearly every community provided the opportunity for new residence configurations to emerge. Nonetheless, many bonds between kin have persisted, evident in mutual assistance, sharing, and gifting patterns that span households (see Jorgensen et al. 1985 for formal evidence suggesting that sharing within and among NANA region villages is still strong). Subsistence harvests probably are the key activities that provide an economic framework for cooperation among related and unrelated residents. Specific details concerning harvest techniques, volumes, and dietary contributions in the region are available in Anderson et al. (1977), Berger and Associates (Vols. 1 and 3, 1983), Stephen R. Braund and Associates (1983), Burch (1985), Jorgensen et al. (1985), Patterson (1974), and Uhl and Uhl (1977, 1979).

The housing boom during the 1970's increased housing stock by about 50 percent in the region; between 1970 and 1980 the housing stock increased by 64.3 percent in Kotzebue, 12.1 percent in Kivalina, and 87.5 percent in Buckland (Deering figures are unavailable; Davis 1983:173). Average household sizes are depicted in Table 13. This housing boom may be responsible for the reduction in average household size after 1970, but average household size has generally increased as the population has grown after 1985. Hence, the housing boom may have had only temporary effects in this regard.

Table 13

AVERAGE HOUSEHOLD SIZES IN NANA REGION SAMPLE COMMUNITIES, 1970, 1985, AND 1989

Community	1970	1985	1989
Buckland	5.20	4.70	5.03
Deering	4.50	3.95	3.37
Kivalina	8.95	3.36	5.59
Kotzebue	4.80	3.94	4.07

Sources: Alaska Department of Community and Regional Affairs 1974; Woodward-Clyde and Associates 1985; McNabb 1989. The 1985 figures are suspect due to enumeration of vacant houses and challenged population totals.

For the most part, kinship provides the main impetus and organization for mutual aid on a day-to-day basis; however, unrelated neighbors may be recipients of assistance.

Affines and collaterals may receive aid, e.g., gifts of food or loaned capital, before closer kin if their needs are greater. Unrelated persons are not preferred recipients of assistance unless they are elderly or disabled; here again the perception of need is paramount (see Davis 1983:300 for schematic examples of food gifts in Buckland). Poverty is not the only factor in the decision to employ informal avenues of assistance, because these avenues (sharing of capital, labor, and food) are not merely utilitarian. During the first MMS Social Indicators study (Technical Report 77, Berger and Associates 1983), we determined that wealthy Iñupiat were more likely than others to eschew formal services, including IHS medical care, but were somewhat more likely to use traditional services such as Native healing (cf. Jorgensen et al. 1985).[10]

The role of traditional mutual aid and partnerships is most pronounced in joint hunting, fishing, and gathering activities. Since the justifications for affiliation are flexible and easily manipulated, responsibilities for harvests are subject to flexible and situational interpretation. The Iñupiat may carry out the actual harvests together, following customary formulas of task group membership; or innovative formulas may be devised. Some Iñupiat, especially the elderly, may underwrite harvest costs incurred by younger kin but never participate directly; nevertheless, they will share in the harvest (see Davis 1983:298-301 for examples pertinent to Buckland). Loans of capital also may

[10] In many states the wealthy use disproportionate shares of psychological services, and in many instances the poor use health services less often because they can't afford them. The important points here are: first, many wealthy Iñupiat avoid formal services because they don't trust them, since most local formal services are run by government agencies. They prefer to pay higher prices for private services, often outside the region. Second, they often disbelieve what they perceive as "mumbo jumbo" from outside technocrats regarding health and other services and put more faith in traditional healing techniques. The poor can't afford to eschew local health services. But poor and wealthy alike may use traditional healing services (the wealthier may use those services somewhat more often, possibly because the poorer residents are more apt to use formal clinic services at the outset and then traditional services later, or if the clinic services seemed ineffectual).

qualify for precisely subdivided portions of the harvest. These examples refer to exchanges based on recognized partnership models; gifts are a separate matter.

Examples of partnership models are listed in Table 14. These partnerships exist today, but they are uncommon. The KI's who provided these data and who, in fact, participate in these partnerships are all elderly. To the best of their knowledge, youngsters do not know what these partnerships are and young adults rarely engage in named, customary partnerships. They offer no specific theories as to why this is so; however, we are tempted to ask if the increasing commercialization of exchange that marks the main thrust of economic change in the region may obviate these partnerships for some youth (who incidentally may be more solvent than their seniors).[11] The role of partnerships as "bridging" mechanisms for spanning extended kin groups is rendered moot among youth who participate in relatively strong peer groups whose organizational principles deviate from traditional kinship forms. Changes in the transmission and reformulation of social knowledge (that is, socialization or enculturation) are addressed in the following section.

IV.C. Socialization

Under ideal traditional circumstances, the Iñupiat were raised to mirror the best role models in their environment: passive and "inward" (Kleinfeld 1978), agreeable and self-effacing (Spencer 1959: 254), permissive and affirmative (Oswalt 1963:31), cooperative and attentive to others (Kleinfeld 1978:43-44), and noncompetitive and nonaggressive (Chance 1965, 1966; Kleinfeld 1978:62; Briggs 1970). Parents, the main

[11] For instance, if one can buy traditional foods, an informal "contact" may be unnecessary.

Table 14

NANA REGION PARTNERSHIP MODELS

Iñupiaq Partnership Term	Definition
ilagiik	Partner, any type; based on the root used for "kinspersons" (ilagiit) but expressed in dual number; rarely used except to refer to a "kin-like" relationship.
paatnaq	Loan word based on English "partner"; refers to any partnership; however, it does not convey the sentimental attachment of other terms; probably not a "true" partnership.
piqatigiik	"Partners that do things together"; based on neutral (meaningless) "pi-" root, plus suffix for dual partners.
kuuvraqqatigiik	"Fishing partners"; implies the equal division of harvest but does not necessarily connote equal labor or equal contribution, although that is normally the case.
suraqqatigiik	"Equal sharing partners"; implies partners in gathering activities, but more literally it conveys sharing of all personal property.
suniaqqatigiik	"Partners who go places together"; traveling companions; this term may be applied to kin; however, the others may not ("ilagiik" is problematic in this sense).
kuuvraqan	"Fishing helper"; based on the same root that is used in "kuuvraqqatigiik" but does not depict a partnership. Devised from "kuuvraq-" (fish, verb) plus "-an" (agent-suffix), literally "thing for fishing."
naqmuqan	"Traveling companion"; not a partnership as in "suniaqqatigiik"; also devised using the agent-suffix.

Source: Author's field notes; cf. Anderson et al. 1977, Burch 1970.

agents of socialization for the youngest children, were indulgent toward their offspring (Chance 1965, 1966).

The historical validity of these statements is open to some criticism (Burch 1984 takes exception and argues that precontact Iñupiat were individualistic and competitive), but these ideals are valid over the more recent historic period (see McNabb 1987) and deviants are stigmatized. Although KI's often observed that these ideals are only sporadically achieved in real life, this is more a question of fit between norms and social control than a question of whether the ideals actually exist.

No single explanation for the gap between ideals and reality or the now obvious generation gap among the Iñupiat is adequate. On the one hand, socialization (and the gamut of related matters suggested by the term) is a distributive phenomenon: parents (and children) engage in a wide range of practices and behaviors that, for them, are customary. Few may be truly representative; hence, any generalizations are circumstantial (and the empirical circumstances are poorly understood). In one sense, exceptions are wholly predictable. On the other hand, a generation gap per se can be seen as a partial explanation rather than a problem to be explained. For instance, many adult Iñupiat do in fact exert strong discipline and seek to inculcate ideal values using systematic, overt means.

However, if the means and techniques are traditional (e.g., stigmatization through gossip or teasing, or through avoidance, neglect, or withholding of affection on the part of significant kin), the efficacy of these means is blunted among youth whose main orbits of interaction are defined only in part by kinship (see discussion below for details on the

evolution of strong peer groups). The point is that some forms of traditional discipline (teasing, stigmatization, gossip)--not to mention those forms of social control that may now seem so subtle as to be invisible in practical terms--are not very effective among youth who pay little attention to adults in their kin group. In addition, if those parents adopted more stringent or physical forms of discipline (as in fact they are often urged to do by educators, for example), such forms are so alien to some adults that they are apt to be inconsistently applied (hence ineffective and counterproductive) and even traumatic for both parent and child.

Two interlinked processes probably are at work in the domain of socialization in general:

First, the institutionalization of socialization (e.g., education) has substituted formal classrooms, workshops, and professional teachers for the informal Inupiat learning processes that stressed learning through observation (without overt pedagogy) and domestic socialization. The history of Western institutionalized education in the region is so shallow that many parents have only marginal formal education, and a child's grandparents may have little or none. Thus, the tangible benefits of this type of education are seldom evident within the domestic group of seniors from whom role models were traditionally selected. According to the findings of the first MMS Social Indicators study (Berger and Associates 1983), successful, well-placed residents are frequently skeptical of the value of formal educations. Records of study interviews for 1987 and 1989 support this view: some (but not all) financially successful and employed Iñupiat are critical of local schools because they are seen as poor (in an absolute sense)

and irrelevant (because they ignore Iñupiaq culture and language). The author's observations indicate that residents often have an accurate understanding of employment opportunities in their region, which may not require the curricula presented in the schools. This disparity poses a dilemma: if youth don't need some or many school skills for local jobs, why are they being taught; and worse, are children being prepared for a life outside the region? In addition, KI's state that elders are apt to defer to younger persons or non-Iñupiat in educational matters; hence, the elders' civic participation may be minimal.

Changing patterns of governance of educational institutions also have a bearing on socialization. Formal authority for school administration and curriculum oversight is a recent phenomenon throughout rural Alaska; the locally elected NWASD Board was not formed until 1976. The roles and responsibilities of governing authorities typically undergo a slow and sometimes fitful process of evolution and maturation. Once local governing authorities achieve a vision of what their institutions must do and develop a policy-making apparatus well-suited to directing operations and setting objectives, a sense of legitimate authority and real commitment may be fostered that expands beyond the board itself and can be adopted by the community at large.

In the NANA region, the NWASD Board developed systematic academic performance goals quite recently (1985-1986). These standards were articulated as a "basics" doctrine that would be evaluated in terms of scores on standardized instruments, despite the fear among some KI's that teachers would now "teach to the test." When standardized test scores showed a decline relative to past district performance as well as

against national norms in late spring 1987, there was a public uproar over what was viewed as "failure" by the academic staff (see Arctic Sounder 1987c:1). It is notable that, upon achieving a firm sense of what academic achievement should consist of, leadership as well as resident awareness of and commitment to specific academic objectives appears to have increased, despite the skepticism about the value of education voiced in some circles.

It also is noteworthy that the SRA controversy reignited a debate about achievement standards. Stories (some probably true, some probably not) about graduating seniors with good grades who suddenly discover they cannot pass freshman college courses are voiced occasionally when educational matters are discussed. Parents often use these stories as evidence of poor standards: kids are passed along whether or not they truly earn their grades. The result is seen as a smooth transition through regional schools leading to ultimate academic failure. Generally the administrators and teachers are blamed. Privately, however, teachers occasionally say that failure is not tolerated by local parents, and that parents blame poor achievement on teachers. Moreover, low grades or even teacher warnings about truancy or academic problems are said to inspire parental criticism. Teachers use these stories to illustrate what they sometimes see as a hopeless double-bind. (These criticisms and double-binds are not new and they undoubtedly surface at all schools, so they are not unique in this setting.) But it seems true that local educators and parents are hard-pressed to develop coherent plans to inspire academic motivation. This school district now offers cash awards to

students for achievement and attendance, despite fears in some local circles that these awards will be seen as crass incentives or bribes.

This discussion focuses entirely on the institutional setting of education; however, informal learning processes are still viable. Evidence shows that "observational" (nonpedagogical) learning stressing the key ideals noted above occurs on a wide scale but chiefly in the areas of subsistence skills and games or sports (cf. McNabb 1985). Analysis of skills acquisition in informal settings (i.e., at fish camp, at boat moorings in front of the village, in the home) shows that nondirective techniques, teaching by example without overt pedagogy, and nonverbal prompting are widely practiced, and that youth are allowed and even encouraged to learn through failure without stigma.

Second, a variety of changes in health care, demography, and settlement patterns have introduced a prolonged period of adolescence among the Iñupiat that was never present in traditional times. In the past, youngsters moved rather rapidly from the status of dependent to provider and from son or daughter to spouse. Today a marginal status that is familiar to Westerners but alien to the Iñupiat has emerged: the teenager who has few adult responsibilities but who is no longer a child (cf. Condon 1987). The dilemmas introduced by this change are relatively new in the north, and they have not yet been resolved. Many grandparents started families when they were younger than grandchildren who have not yet graduated from high school, so it is likely that there is no strong consensus among all regional adults that youth should consider school their number-one priority. Some KI's note that this disparity in expectations among elders and agencies even contributes to teen pregnancies: relatively few elders are dismayed by

teen pregnancies, since they were bearing or raising children at the same age as their teenage grandchildren.

Formal educational services probably will be unable to ease this transition or remedy the larger socialization dilemma. The Maniilaq Association sponsors youth programs each summer that seek to teach traditional harvest and survival skills by doing (through participation rather than overt instruction), but the future of these programs is uncertain due to budget cutbacks. The future status of the Iñupiaq language in Northwest Alaska remains in peril. But "traditional" learning within the domestic group in some skill areas appears to be very viable today. The areas in which traditional learning persists as a mode of education are precisely those for which successful institutional substitutes have not yet emerged: subsistence skills, arctic-survival techniques, traditional arts and crafts, and to a significant extent, language acquisition and child-rearing (and related domestic) practices.

V. IDEOLOGY

This brief section discusses religion, worldview and values, and ethnicity. Except for the discussion of religion, the coverage summarizes issues that already have been discussed in other sections but concentrates on their ideological dimensions.

V.A. Religion

The denominations and evangelical missionary groups that practice in the NANA region are as follows:

- Friends Church (California Yearly Meeting)
- Episcopal

- Baptist
- Church of God
- Catholic
- Latter-Day Saints
- Baha'i
- Seventh Day Adventist
- Bible Missionary

The Friends Church clearly has been the dominant religious body in the region since 1897. The last three named sects only rarely operate on a year-round basis, instead mobilizing on a sporadic or seasonal basis. Members of other denominations have proselytized from time to time.

According to published records, the stimulus for missionary activity in the region came in part from local Iñupiat who first met Sheldon Jackson (a Presbyterian minister and educator who helped introduce the reindeer industry in Alaska) when he briefly visited Kotzebue Sound, probably in 1895. In 1896, two Iñupiat from Kotzebue Sound journeyed to Cape Prince of Wales in order to catch a southbound steamer in order to seek out missionaries they learned of through Jackson. They traveled by steamer to Douglas, Alaska, via Sitka. There they approached Charles Replogle, who administered the Douglas Friends mission. Anna Hunnicutt, who was later to become an important Friends missionary in the NANA region, was then working with Replogle.

Replogle and Hunnicutt took the matter to the California representatives of the Friends. A missionary program was approved in which Hunnicutt was joined by Robert

and Carrie Samms. They traveled north and established the Friends mission-school at Kotzebue in 1897. Over the next 20 years, Hunnicutt and the Samms served as missionaries at Kotzebue, Deering, Oksik (a now abandoned settlement on the lower Kobuk River), Noatak, Kivalina, Shungnak, Selawik, and Buckland (Kelsey 1917:253-254).

The Friends Church has been an influential social force in the region for its entire history, and this influence has often extended to secular affairs. Key members of important boards and committees also are church leaders. During the formative years of the Spirit Movement (Iñupiat Ilitqusiat; see Sec. V.C), the Friends Church was formally represented on the steering committee, joining representatives of NANA, Maniilaq, and NWASD. One result of the Spirit Movement was the creation of Elders' Committees in each community (see Sec. V.B); key members of Elders' Committees are frequently Friends Church leaders. For these reasons it is difficult to disentangle the social, political, and sectarian dimensions of ideologies in the NANA region.

The other denominations have serious and committed adherents; however, their larger social roles are minor compared with those of the Friends Church. The activities of the other denominations are private and constrained. Aside from the evangelical proselytizing sects, the other groups involve themselves in charitable work in the region; however, their activities have never involved the public exposure and advocacy evident in Friends Church work.

V.B. Worldview and Values

In Section IV.C (Socialization), a variety of Iñupiaq character ideals were presented. These ideals are not personality traits but rather expressive conventions with prominent situational features; that is, these ideals exemplify ways of acting that are deemed proper, but different situations call for different ways of acting. Viewed in a different way, these ideals are "good impressions" that the Iñupiat may and often do convey but only if they choose to and subject to their perceptions of what the situation calls for. In this perspective, worldview and values are not rigid doctrines but rather conventions open to the same sort of flexibility and reinterpretation that is evident in kinship practices (see McNabb 1985, 1987 for analyses of Iñupiaq values based on NANA region data).

The innovative use of values in new contexts is evident in numerous examples from the NANA region; two are described here. First, there is a short-lived solution to chronic problems in designing effective and culturally relevant alcoholism-treatment techniques in the region. The Maniilaq Association initiated a new alcoholism program in 1980. From the beginning it was plagued by typical problems that obstruct alcohol programs for Native Americans: ineffective outreach efforts; resistance, denial, and low intake rates; alien treatment goals; low levels of commitment among clients; and few tangible incentives for recovery.

One attempt[12] to introduce relevance was the creation of an assessment and evaluation tool that rated clients along three scales keyed to important Iñupiaq

[12] This attempt was instigated by the author in his capacity as consultant to the Maniilaq Association alcohol program, so this example is a personal recollection.

intellectual and interpersonal concepts: isruma (or reason); naglik (or fondness; devotion); and suqu (or attentiveness; social vigilance). These concepts have natural parallels among treatment goals used in programs nearly everywhere, so they are foreign only in a linguistic sense.

The attempt failed, probably because it sought to establish an Iñupiaq context where it seemed alien (i.e., in a treatment program); so it tried to emulate a belief system that fit poorly in a treatment bureaucracy. The program attempted to adopt cultural concepts alien to a bureaucratic context that comprised a regimented "treatment" design, and by doing so to make that design and that context less alien and more "relevant." Another possible reason for failure is one common to many cross-cultural psychiatric techniques: it is difficult to introduce cultural concepts with clients whose cultural roots have been crippled to a greater or lesser extent.[13] Nonetheless, the example illustrates how values can take on new meanings (sometimes unintended and not wholly successful) by being placed in new contexts.

The second attempt concerns the development of Elders' Committees subsequent to the establishment of Iñupiat Ilitqusiat, a grassroots social reform movement in the region (see Sec. V.C). Elders' Committees were formed to provide a public forum for regional elders to discuss current economic and social issues and make public

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[13] In this connection, a psychiatrist once told the author "How do you go about building on traditional family values, indigenous concepts of sharing and reciprocity, and the like with clients whose family connections are shattered, grew up in dysfunctional households, and never were involved in genuine sharing relationships?" This is a skeptical appraisal, but it poses a serious and important point. Clients with serious psychological and social deficits are precisely those who have trouble connecting to those values, and their problems may be so severe as to be practically "precultural." Nonetheless, few alcohol-treatment clients are so disconnected, and this footnote focuses on "worst-case scenarios."

recommendations. The committees were charged with reviewing issues and providing advice based on their wisdom and Iñupiaq values. Virtually all formal institutions were encouraged to use Elders' Committees as a sounding board. The encouragement took the form of powerful suasion by key Iñupiaq leaders. Proposals that were accepted by these Elders' Committees went forward, and those that were not approved were shelved or eliminated from further consideration, with few exceptions.

Since about 1984, the Elders' Committees have become increasingly vocal and on occasion take public advocacy stands in the absence of proposals laid before them. In 1985, the Elders' Committees called on NANA to close the bar at the Nulukvik Hotel and Restaurant in Kotzebue because alcohol was viewed as a persistent problem that shareholders could do something about as owners (through NANA) of the bar. Despite the fact that the bar provided hotel revenues that kept the hotel/restaurant operation solvent, NANA responded by closing the bar. This example illustrates the political and economic dimensions that values may assume.

Other informative sources on Iñupiaq values include Briggs (1970) and Brody (1975). Although these sources cover Canadian data, they can be extrapolated to the Northwest Alaska case with virtually no distortion.

V.C. Ethnicity and Tribalism

The Iñupiat Ilitqusiat movement in the NANA region has elements of both a revitalistic movement and a populist program, since it seeks to assert and validate Iñupiaq ethnic identity, reactivate and preserve Iñupiaq skills, and solve pressing social problems by using traditional wisdom that is part of the essential heritage of the Iñupiat

(however, see the classificatory discussion below). The movement was not articulated by its first spokespersons until 1981; however, Willie Hensley's keynote speech at the 1980 Alaska Federation of Natives convention anticipated it. He said,

> We fought for the land because it represents the spirit of our people, because it represents an intimate knowledge of the environment our people grew up with for ten thousand years. . . . Our fight for land was a fight for survival. . . . We cannot look to corporate or political life to fill the void of a century of psychological repression. . . . A renaissance of our language and culture will give us the basis for the renewal of our people (NUNA 1980:1).

Hensley consulted with John Schaeffer (NANA President), Robert Newlin (NANA Board of Directors), and Roland Booth (Friends Church) over the next few months; by June 1981, a title for a new organization--Iñupiat Ilitqusiat--and a Spirit Committee Coordinator (Hensley) had been selected.

The committee presented an "Action Program" and agenda to the combined boards of NANA, Maniilaq Association, and NWASD in June. This plan specified the movement's responsibilities on an agency-by-agency basis: NANA would coordinate the creation of Elders' Committees and document Iñupiaq geography and resource uses; NWASD would handle curriculum development; and Maniilaq would document traditional health care practices and begin planning a rehabilitation retreat designed around Iñupiaq values (which would eventually emerge as the Sivuniigvik camp). Iñupiaq values were identified (see Sec. IV.C and Sec. V.B):

- Know the Iñupiaq language;
- Share with others and try to be helpful;
- Treat all people with respect;

- Cooperate with others;
- Respect the elders;
- Treat children with love;
- Work hard and avoid idleness;
- Know your family tree;
- Avoid unnecessary conflict;
- Respect all animals;
- Don't lose your sense of humor;
- Meet your obligations to your family;
- Respect successful hunters;
- Learn Iñupiaq domestic skills; and
- Trust in a spiritual power greater than yourself.

(NUNA 1981a:8-9)

The ethnic-revitalization emphasis combined with a redirection of existing institutions and institutional goals emerged only 1 month later. In a July 1981 movement conference, Hensley stated that "'The school. . . . has been a tool for the disintegration of viable cultures.' Hensley suggests that the western institutions that weakened Iñupiaq spirit can and should be used to restore it" (NUNA 1981b:2). Furthermore, "'As long as the rest of the world will see you as Iñupiaq,' Willie said, 'no matter what you do or where you go, you should know what it means to be Iñupiaq and feel good about being Iñupiaq. <u>You can't become nalaugmiut [white] any more than a nalaugmiut can become an Iñupiaq</u>'" (NUNA 1981b:2; original emphasis). By December 1982, Elders'

Committees had been fully formed in most communities and the agenda for Iñupiat Ilitqusiat activities was being delegated to those committees and village residents (NUNA 1982). The original intention of the founders was to formulate a concept that could then be imported, modified, or rejected by residents in accordance with their wishes and priorities. The formulation phase was terminated by the beginning of 1983.

Some context has been established that should allow us to classify Iñupiat Ilitqusiat vis-a-vis movements in general. Aberle's (1982) scheme is used here. The key dimensions of Aberle's classificatory scheme are locus of change (that is, whether the movement's directive ideology aims toward changes in individuals or in entire societies, for instance) and volume of change (whether the change is total or partial). Aberle recognizes a four-part typology: transformative (total change, supra-individual locus); reformative (partial change, supra-individual locus); redemptive (total change in individuals); and alterative movements (partial change in individuals)(cf. Aberle 1982:316).

Aberle notes that some movements may tend toward pure prototypes, but many may combine features of two (or more) types and thus must be described in terms of their predominant elements or the overall blend. Accordingly, Iñupiat Ilitqusiat is best considered a reformative movement with very conspicuous redemptive features. Thus, the movement aims toward partial change in the social system and even the world order at large but also seeks a fundamental reorientation in the values of individuals (achieved only on an individual basis), in part through a readoption and revalidation of idealized moral and social values.

We must stress in passing that the redemptive features of movements are not necessarily theological in nature, nor are they only personal. Aberle considers the psychoanalytic movement to be a redemptive movement, for instance, and says that "Virtually all redemptive movements. . .reject at least some features of the current society" (Aberle 1982: 321).

Developments since 1983 have been difficult to monitor since the institutional context for the movement has been eliminated by design. Some KI's deem the movement a failure because little or nothing tangible has resulted. Some KI's indicate that the movement was symbolic and, hence, could not yield tangible results aside from new ideas about how institutions might operate. There is good evidence that the movement had indirect results, notably in the formation of Elders' Committees whose activities have departed from the Iñupiat Ilitqusiat model per se but still have a strong ideological content that appeals to Iñupiaq dignity and community responsibility.

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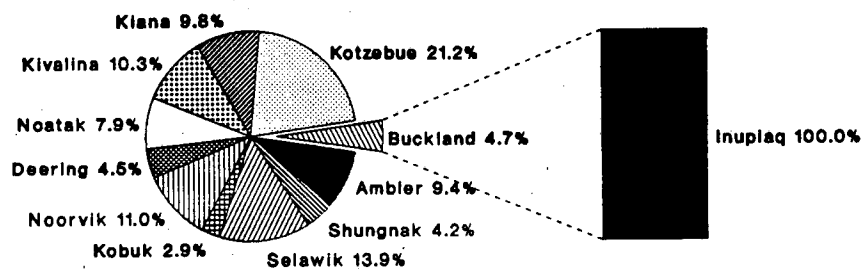
Appendix A

Northwest Arctic Borough 1989 Survey Exhibits

Exhibit 1
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)

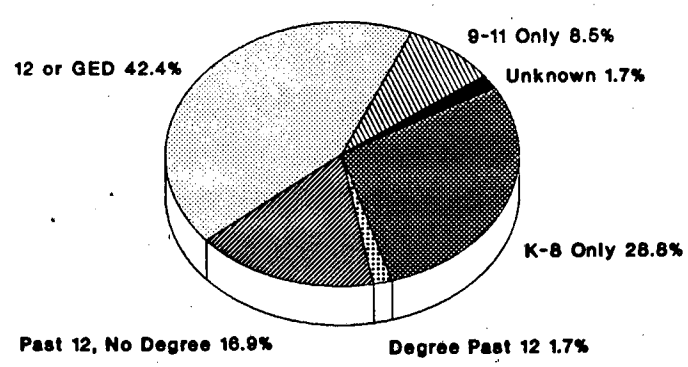


Village Distribution

Ethnicity

Note: Figures shown are percentages of total sample (N=1254) and Buckland sample (N=59)

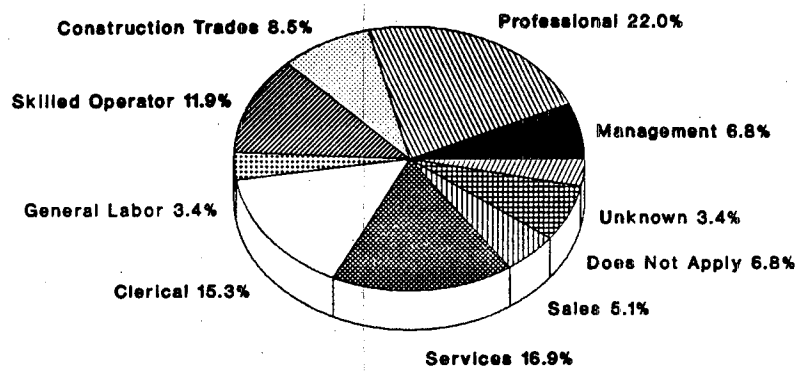
Exhibit 2
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Educational Background

Note: Figures shown are percentages of Buckland sample (N=59)

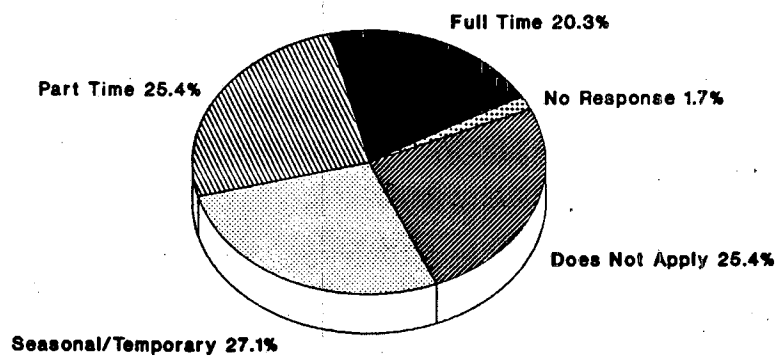
Exhibit 3
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Main Skill Areas

Note: Figures shown are percentages of Buckland sample (N=59)

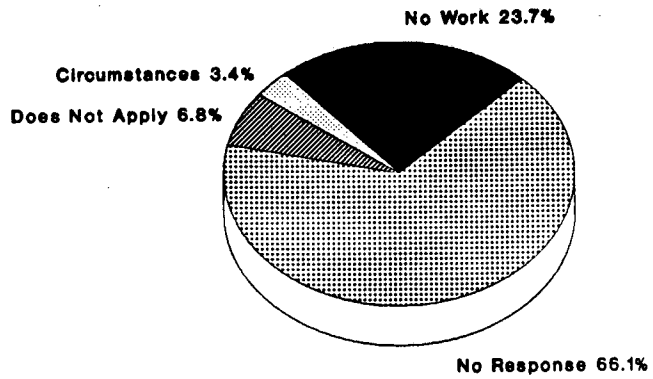
Exhibit 4
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Status of Employment

Note: Figures shown are percentages of Buckland sample (N=59)

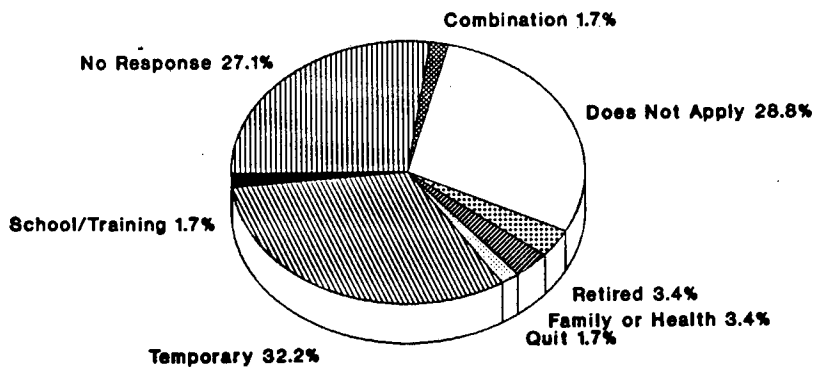
Exhibit 5
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Reason for Unemployment

Note: Figures shown are percentages of Buckland sample (N=59)

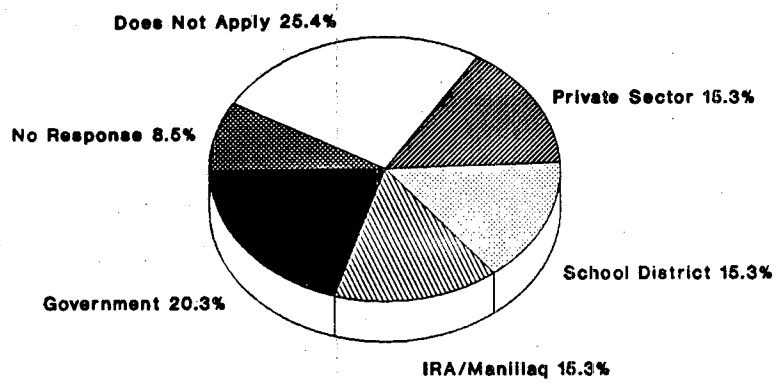
Exhibit 6
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Reason for Leaving Last Job

Note: Figures shown are percentages of Buckland sample (N=59)

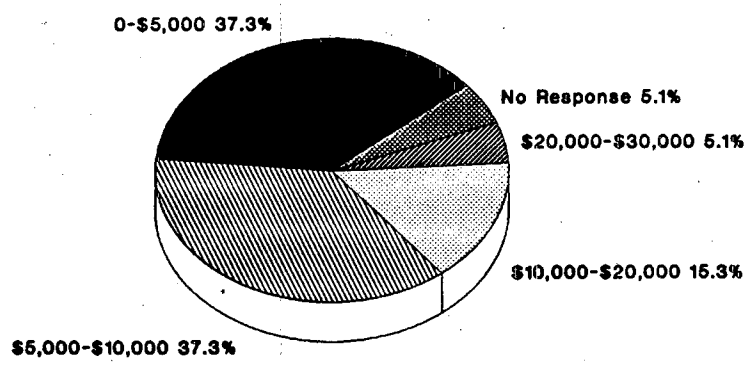
Exhibit 7
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Principal Employer

Note: Figures shown are percentages of Buckland sample (N=59)

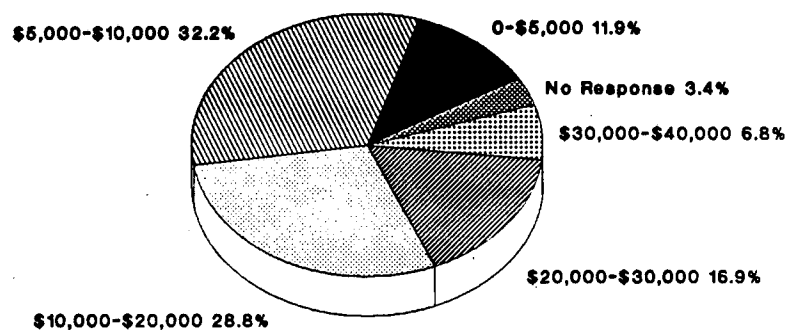
Exhibit 8
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Personal Income

Note: Figures shown are percentages of Buckland sample (N=59)

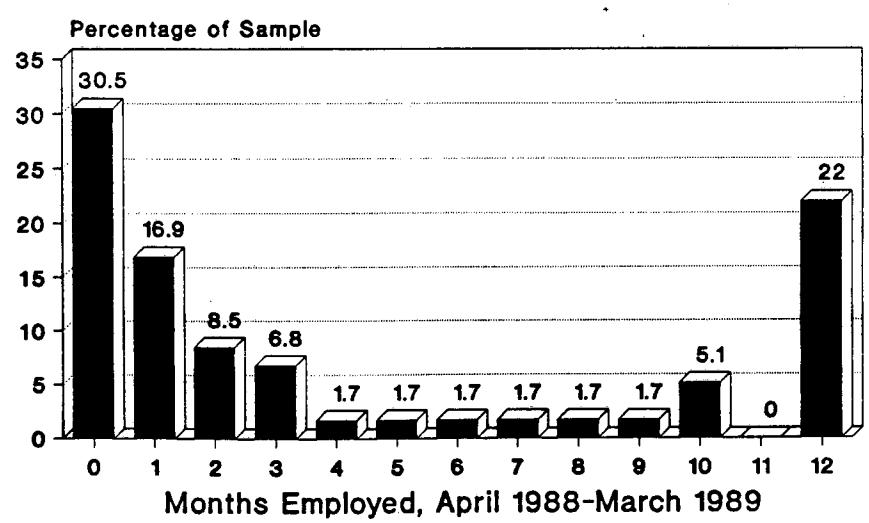
Exhibit 9
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Household Income

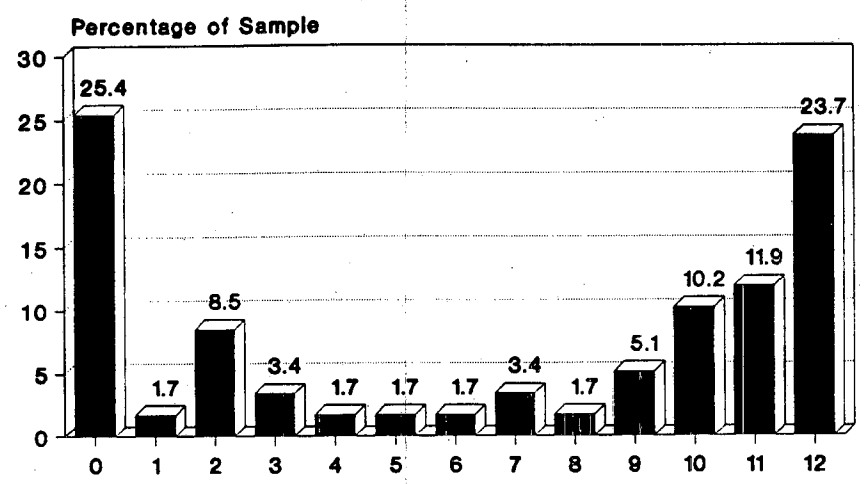
Note: Figures shown are percentages of Buckland sample (N=59)

Exhibit 10
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Note: Figures shown are percentages of Buckland sample (N=59)

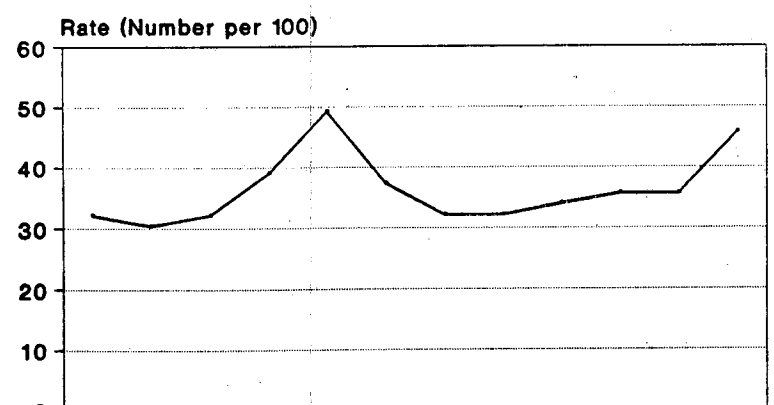
Exhibit 11
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



Months Unemployed, April 1988-March 1989

Note: Figures shown are percentages of Buckland sample (N=59)

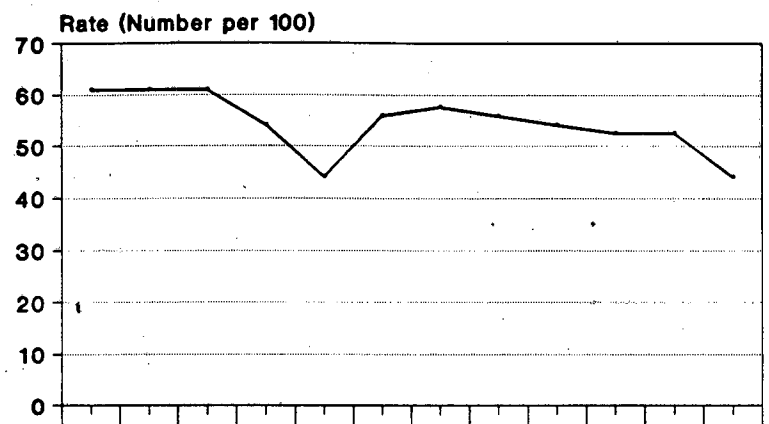
Exhibit 12
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate —	32.2	30.5	32.2	39	49.2	37.3	32.2	32.2	33.9	35.6	35.6	45.8

Employment Rate, April 1988-March 1989

Exhibit 13
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Buckland)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate —	61	61	61	54.2	44.1	55.9	57.6	55.9	54.2	52.5	52.5	44.1

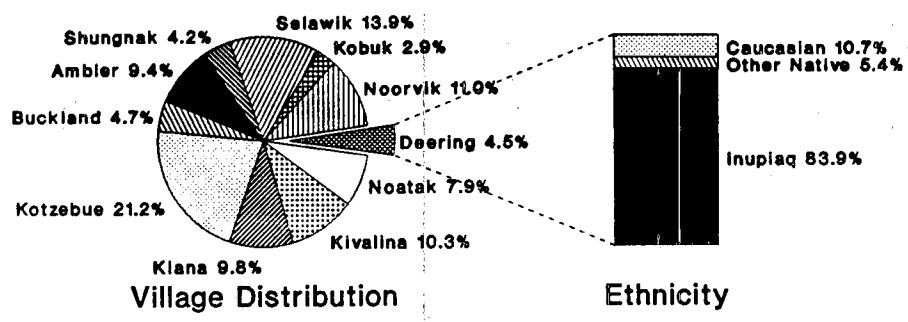
Unemployment Rate, April 1988-March 1989

Exhibit 14: Background and Attitudes
Northwest Arctic Borough 1989 Survey (Buckland)

Survey Item	Yes	No	No Response
Desire training?	81.4%	16.9%	1.7%
Presently employed?	32.2%	67.8%	0.0%
Employed two weeks last year?	57.6	37.3%	5.1%
Move outside region for job?	35.6%	59.3%	5.1%
Move in Borough for job?	69.5%	30.5%	0.0%
Willing to work rotation?	79.7%	20.3%	0.0%
Have you looked for a job?	40.7%	30.5%	28.8%
Receive transfer income?	55.9%	40.7%	3.4%
Receive other unearned income?	10.2%	88.1%	1.7%
Own your home?	69.5%	30.5%	0.0%
Own NIHA house?	62.7%	32.2%	5.1%
Need new businesses in town?	74.6%	23.7%	1.7%
Arrests in household?	1.7%	96.6%	1.7%
Use social services?	5.1%	94.9%	0.0%
Expect Red Dog job?	44.1%	42.4%	13.6%
Sufficient jobs in future?	91.5%	6.8%	1.7%
Feel safe in community?	100.0%	0.0%	0.0%

Note: Figures are percentages of sample N=59.

Exhibit 15
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)

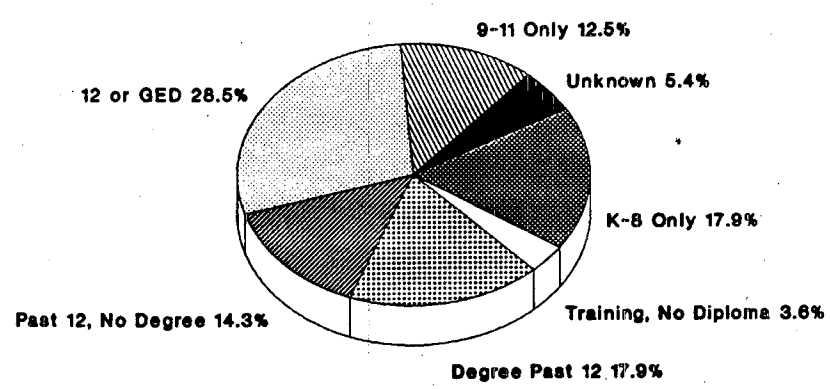


Village Distribution

Ethnicity

Note: Figures shown are percentages of total sample (N=1254) and Deering sample (N=56)

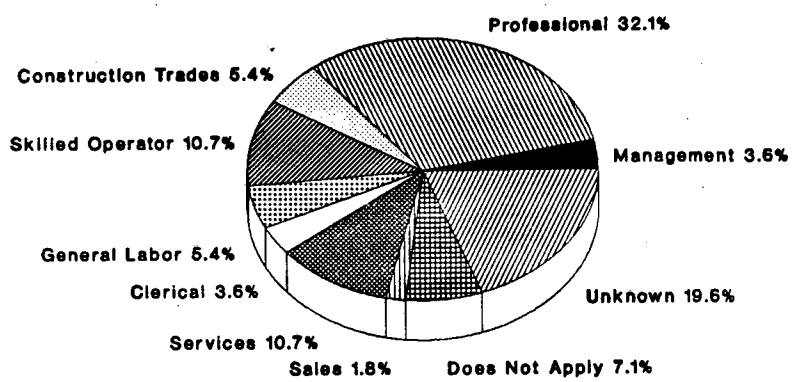
Exhibit 16
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Educational Background

Note: Figures shown are percentages of Deering sample (N=56)

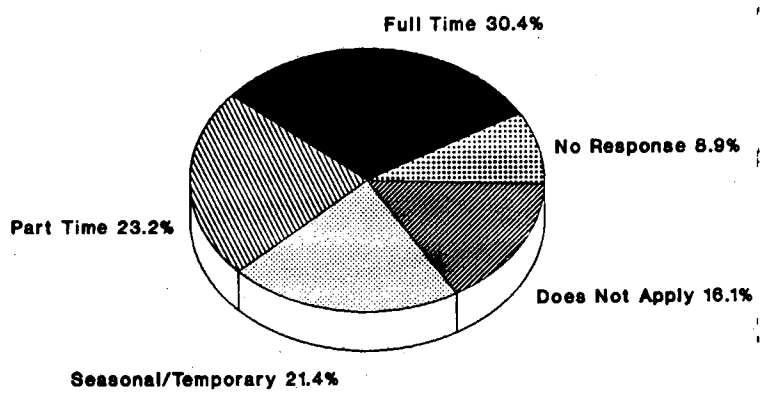
Exhibit 17
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Main Skill Areas

Note: Figures shown are percentages of Deering sample (N=56)

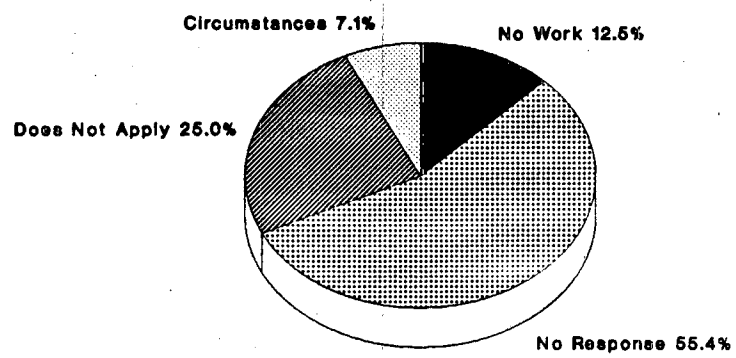
Exhibit 18
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Status of Employment

Note: Figures shown are percentages of Deering sample (N=56)

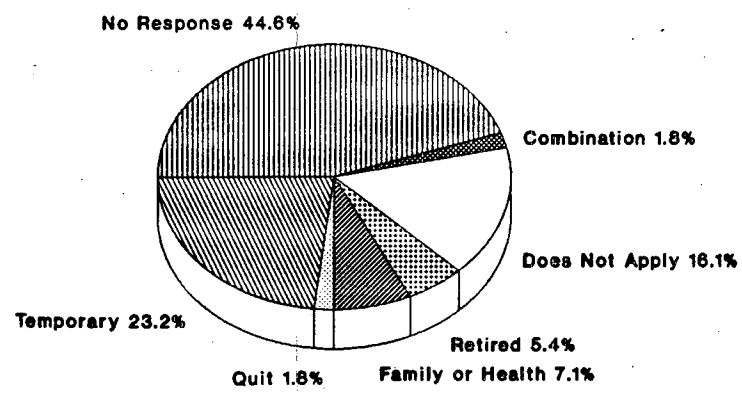
Exhibit 19
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Reason for Unemployment

Note: Figures shown are percentages of Deering sample (N=56)

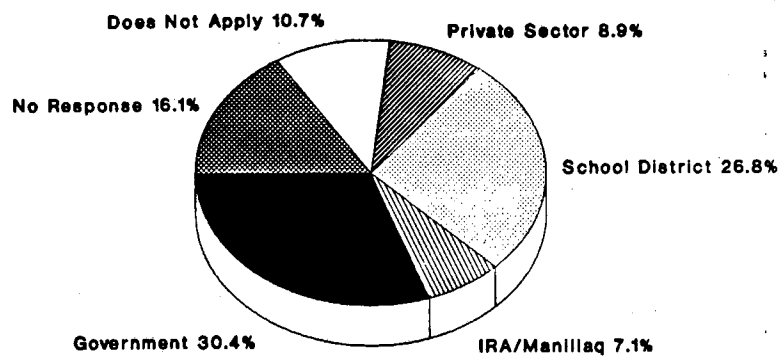
Exhibit 20
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Reason for Leaving Last Job

Note: Figures shown are percentages of Deering sample (N=56)

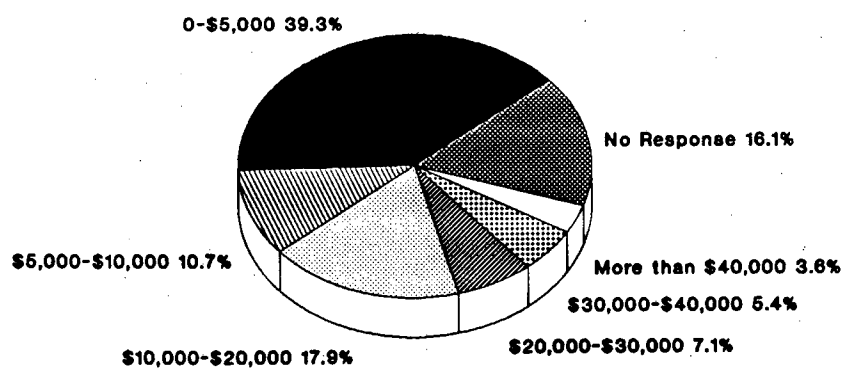
Exhibit 21
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Principal Employer

Note: Figures shown are percentages of Deering sample (N=56)

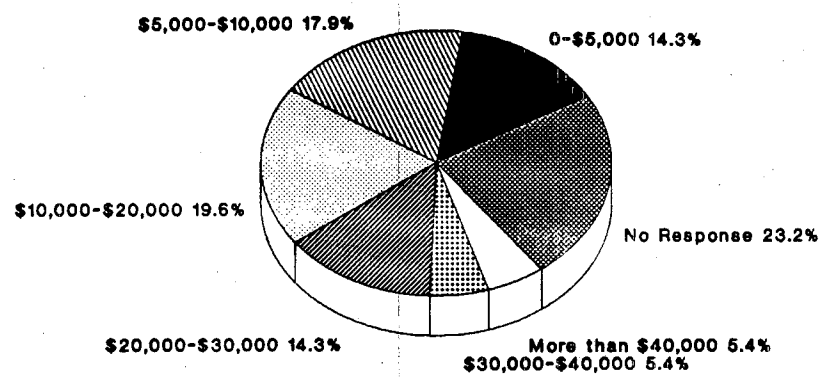
Exhibit 22
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Personal Income

Note: Figures shown are percentages of Deering sample (N=56)

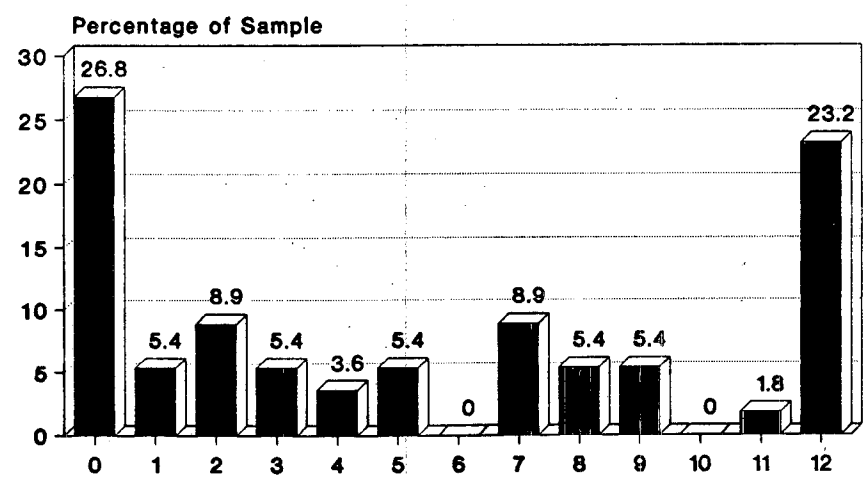
Exhibit 23
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Household Income

Note: Figures shown are percentages of Deering sample (N=56)

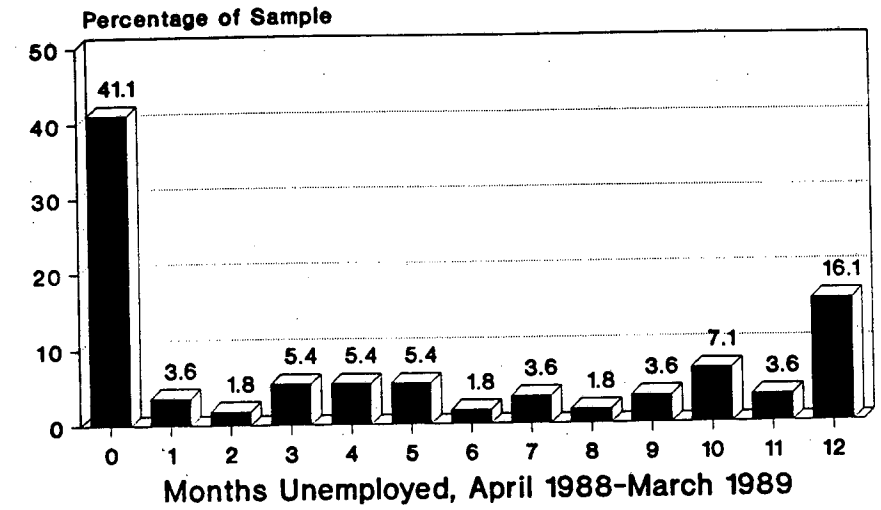
Exhibit 24
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Months Employed, April 1988-March 1989

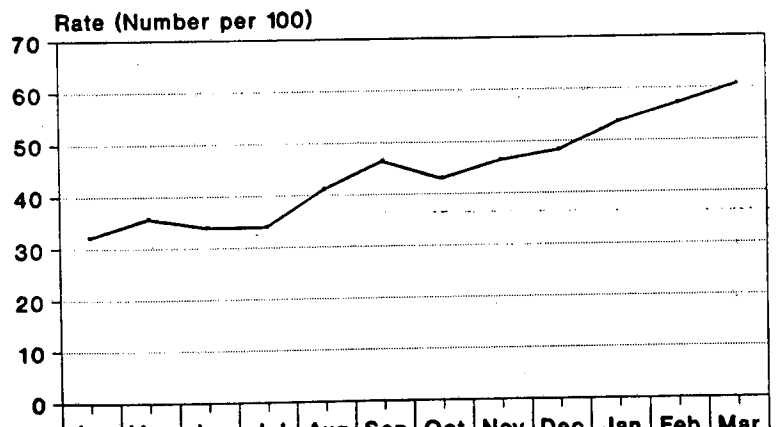
Note: Figures shown are percentages of Deering sample (N=56)

Exhibit 25
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



Note: Figures shown are percentages of Deering sample (N=56)

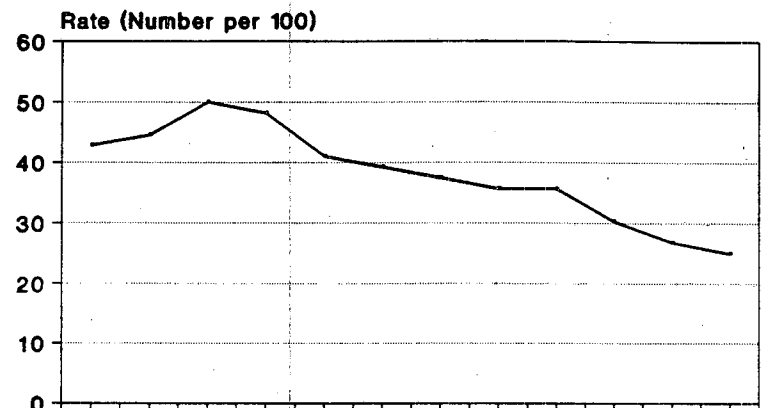
Exhibit 26
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate	32.1	35.7	33.9	33.9	41.1	46.4	42.9	46.4	48.2	53.6	57.1	60.7

Employment Rate, April 1988-March 1989

Exhibit 27
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Deering)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate	42.9	44.6	50	48.2	41.1	39.3	37.5	35.7	35.7	30.4	26.8	25

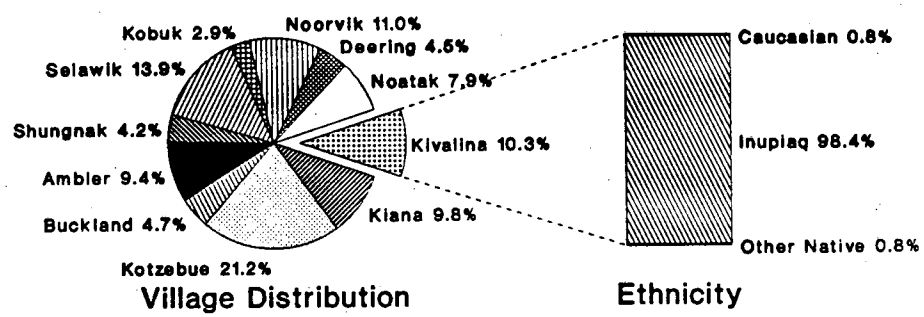
Unemployment Rate, April 1988-March 1989

Exhibit 28: Background and Attitudes
Northwest Arctic Borough 1989 Survey (Deering)

Survey Item	Yes	No	No Response
Desire training?	58.9%	28.6%	12.5%
Presently employed?	41.1%	57.1%	1.8%
Employed two weeks last year?	69.6	21.4%	8.9%
Move outside region for job?	48.2%	37.5%	14.3%
Move in Borough for job?	60.7%	23.2%	16.1%
Willing to work rotation?	60.7%	25.0%	14.3%
Have you looked for a job?	28.6%	37.5	33.9%
Receive transfer income?	39.3%	48.2%	12.5%
Receive other unearned income?	8.9%	75.0%	16.1%
Own your home?	41.1%	53.6%	5.4%
Own NIHA house?	25.0%	64.3%	10.7%
Need new businesses in town?	67.9%	12.5%	19.6%
Arrests in household?	0.0%	80.4%	19.6%
Use social services?	3.6%	75.0%	21.4%
Expect Red Dog job?	23.2%	46.4%	30.4%
Sufficient jobs in future?	64.3%	12.5%	23.2%
Feel safe in community?	85.7%	1.8%	12.5%

Note: Figures are percentages of sample N=56.

Exhibit 29
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)

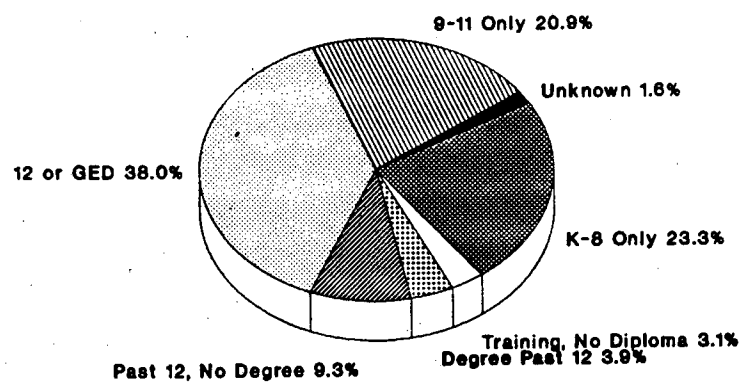


Village Distribution

Ethnicity

Note: Figures shown are percentages of total sample (N=1254) and Kivalina sample (N=129)

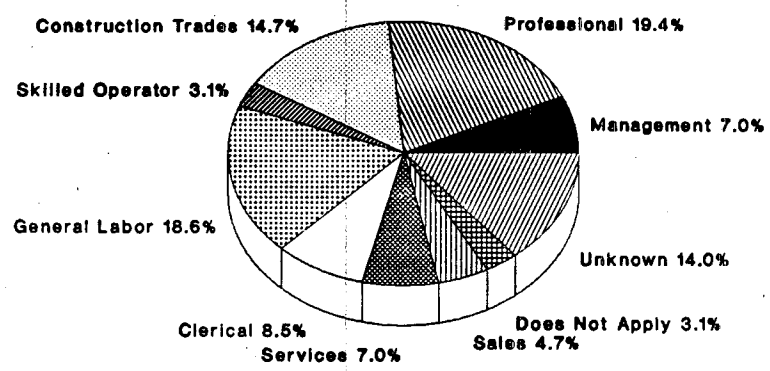
Exhibit 30
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Educational Background

Note: Figures shown are percentages of Kivalina sample (N=129)

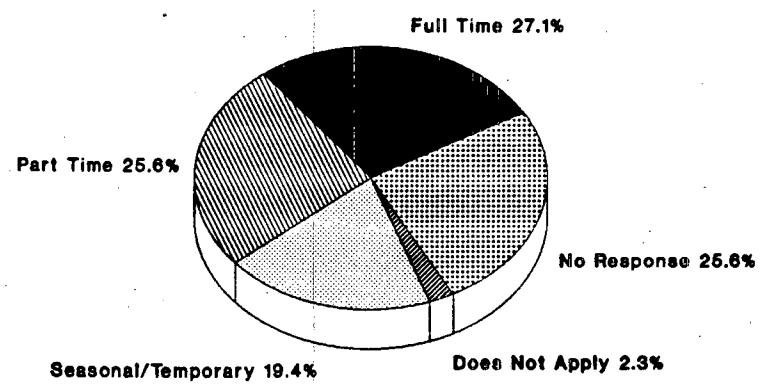
Exhibit 31
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Main Skill Areas

Note: Figures shown are percentages of Kivalina sample (N=129)

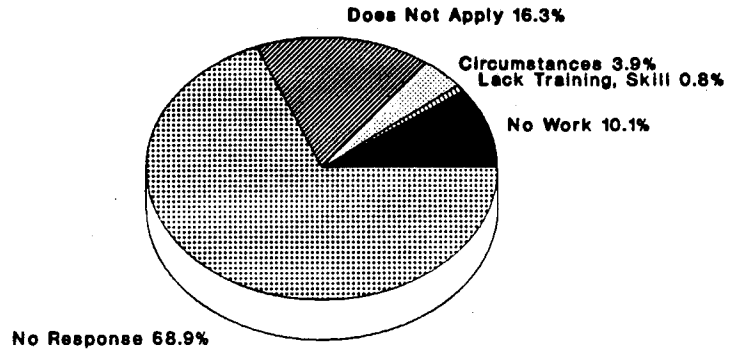
Exhibit 32
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Status of Employment

Note: Figures shown are percentages of Kivalina sample (N=129)

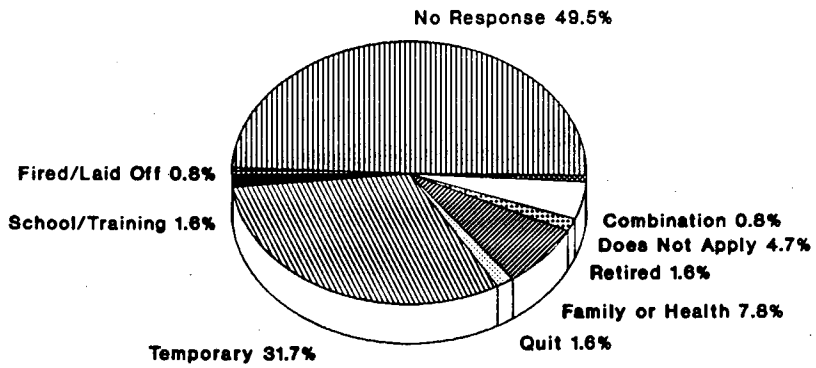
Exhibit 33
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Reason for Unemployment

Note: Figures shown are percentages of Kivalina sample (N=129)

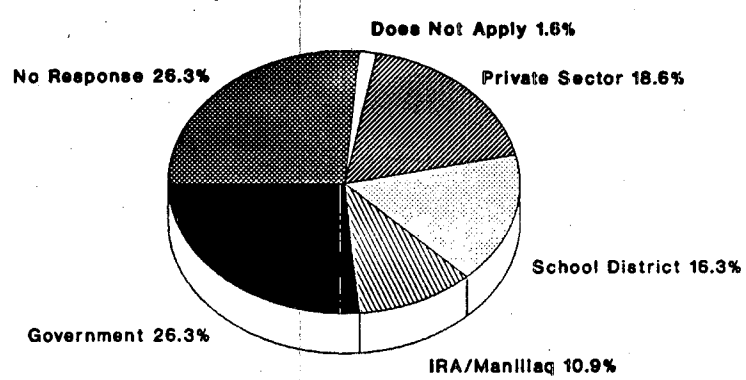
Exhibit 34
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Reason for Leaving Last Job

Note: Figures shown are percentages of Kivalina sample (N=129)

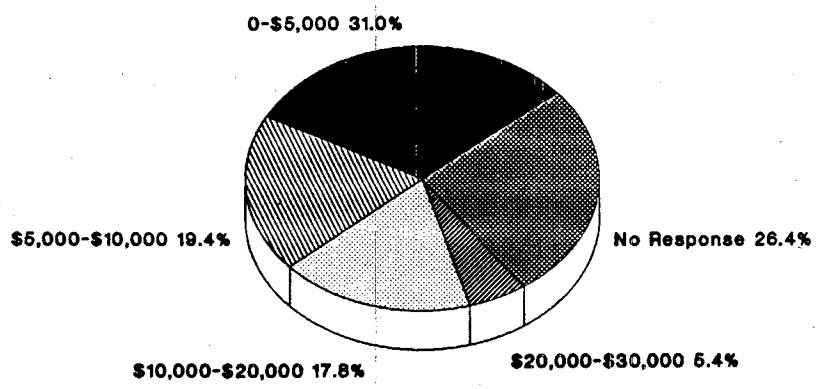
Exhibit 35
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Principal Employer

Note: Figures shown are percentages of Kivalina sample (N=129)

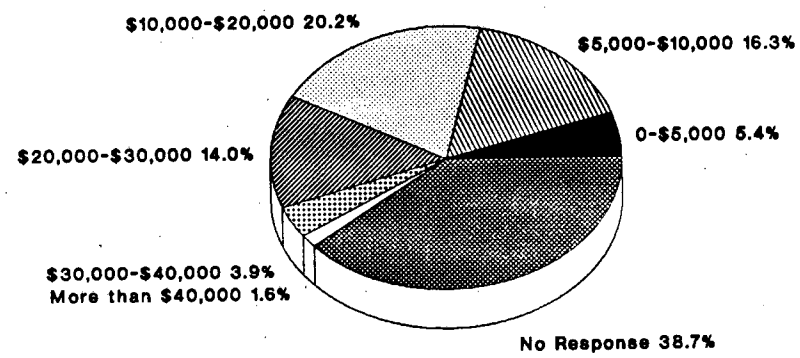
Exhibit 36
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Personal Income

Note: Figures shown are percentages of Kivalina sample (N=129)

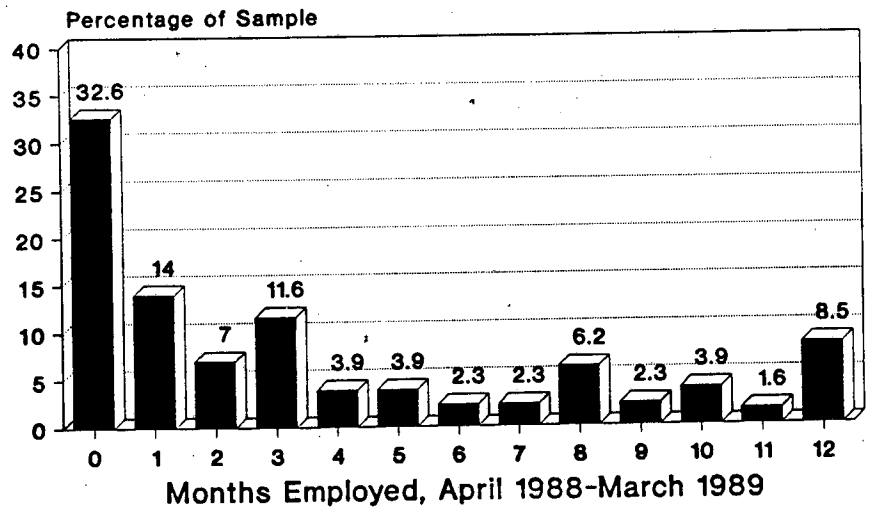
Exhibit 37
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Household Income

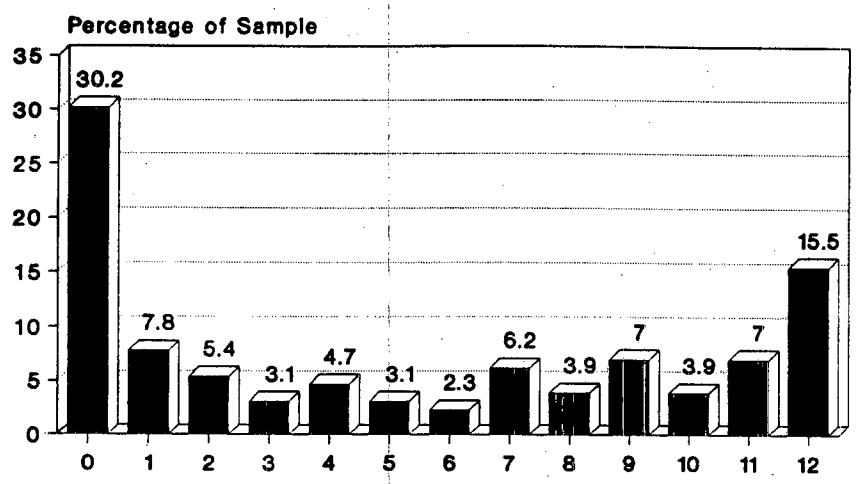
Note: Figures shown are percentages of Kivalina sample (N=129)

Exhibit 38
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Note: Figures shown are percentages of Kivalina sample (N=129)

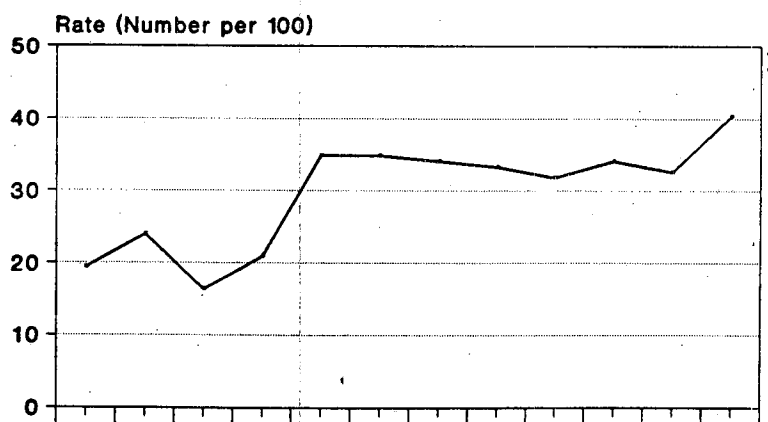
Exhibit 39
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



Months Unemployed, April 1988-March 1989

Note: Figures shown are percentages of Kivalina sample (N=129)

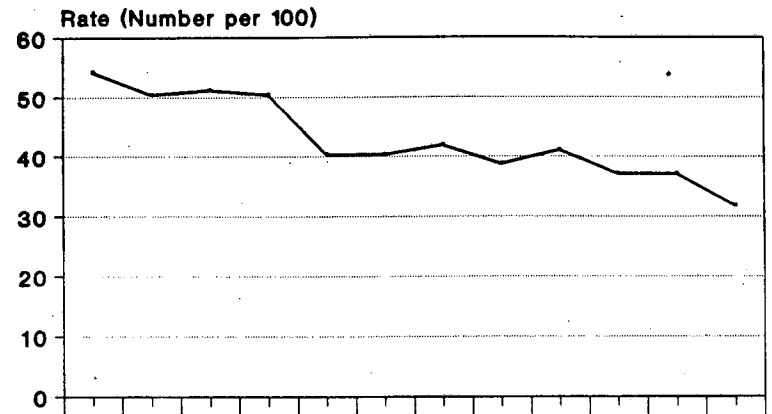
Exhibit 40
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate —	19.4	24	16.3	20.9	34.9	34.9	34.1	33.3	31.8	34.1	32.6	40.3

Employment Rate, April 1988-March 1989

Exhibit 41
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kivalina)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate	54.3	50.4	51.2	50.4	40.3	40.3	41.9	38.8	41.1	37.2	37.2	31.8

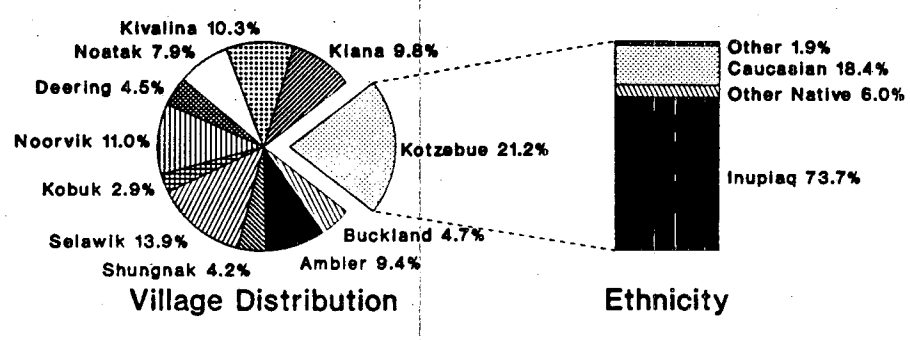
Unemployment Rate, April 1988-March 1989

Exhibit 42: Background and Attitudes
Northwest Arctic Borough 1989 Survey (Kivalina)

Survey Item	Yes	No	No Response
Desire training?	60.5%	14.0%	25.6%
Presently employed?	24.0%	70.5%	5.4%
Employed two weeks last year?	63.6	29.5%	7.0%
Move outside region for job?	36.4%	34.9%	28.7%
Move in Borough for job?	58.1%	18.6%	23.3%
Willing to work rotation?	71.3%	9.3%	19.4%
Have you looked for a job?	35.8%	29.5%	34.9%
Receive transfer income?	48.8%	45.0%	6.2%
Receive other unearned income?	0.8%	93.0%	6.2%
Own your home?	82.9%	12.4%	4.7%
Own NIHA house?	52.7%	44.2%	3.1%
Need new businesses in town?	59.7%	22.5%	17.8%
Arrests in household?	2.3%	64.3%	33.3%
Use social services?	0.0%	72.9%	27.1%
Expect Red Dog job?	45.0%	22.5%	32.6%
Sufficient jobs in future?	70.5%	4.7%	24.8%
Feel safe in community?	76.7%	4.7%	18.6%

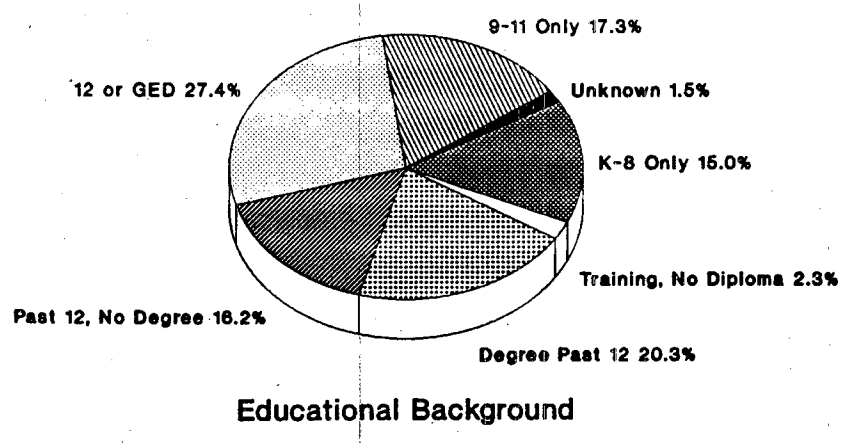
Note: Figures are percentages of sample N=129.

Exhibit 43
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



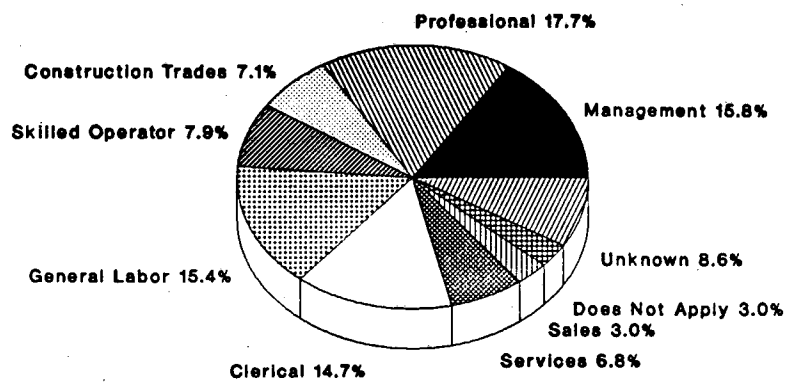
Note: Figures shown are percentages of total sample (N=1254) and Kotzebue sample (N=266)

Exhibit 44
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Note: Figures shown are percentages of Kotzebue sample (N=266)

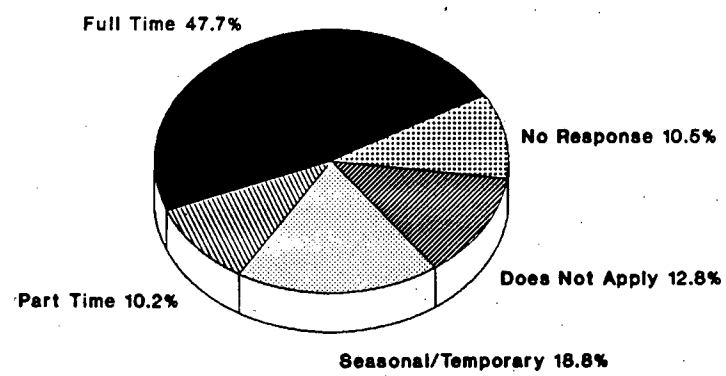
Exhibit 45
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Main Skill Areas

Note: Figures shown are percentages of Kotzebue sample (N=266)

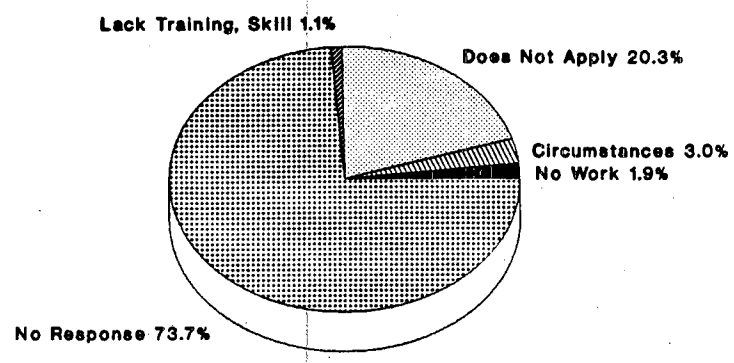
Exhibit 46
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Status of Employment

Note: Figures shown are percentages of Kotzebue sample (N=266)

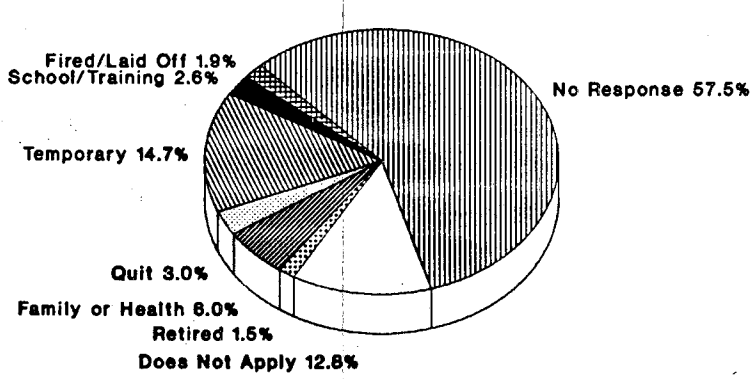
Exhibit 47
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Reason for Unemployment

Note: Figures shown are percentages of Kotzebue sample (N=266)

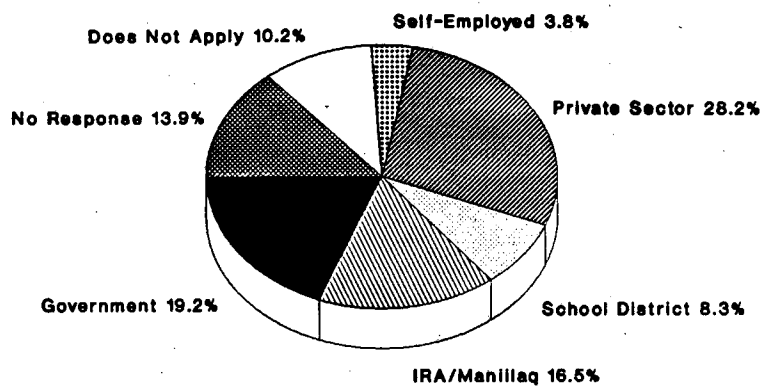
Exhibit 48
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Reason for Leaving Last Job

Note: Figures shown are percentages of Kotzebue sample (N=266)

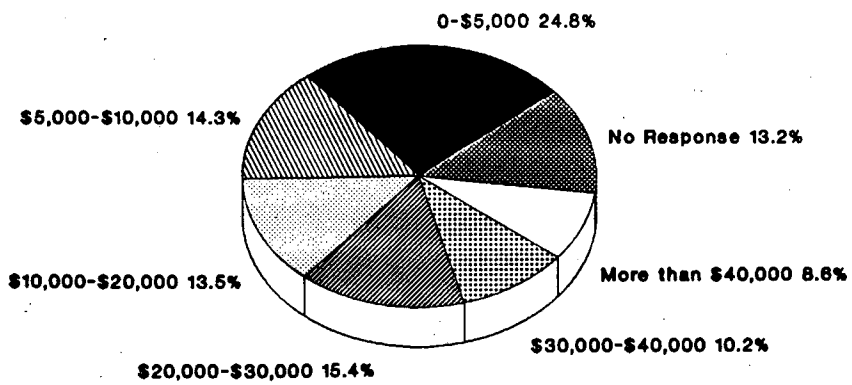
Exhibit 49
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Principal Employer

Note: Figures shown are percentages of Kotzebue sample (N=266)

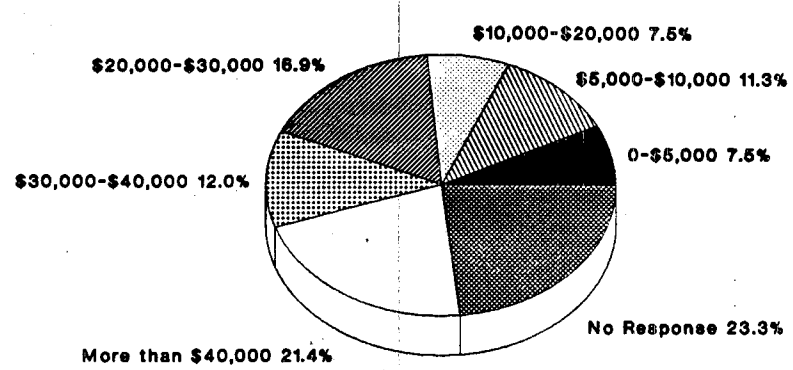
Exhibit 50
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Personal Income

Note: Figures shown are percentages of Kotzebue sample (N=266)

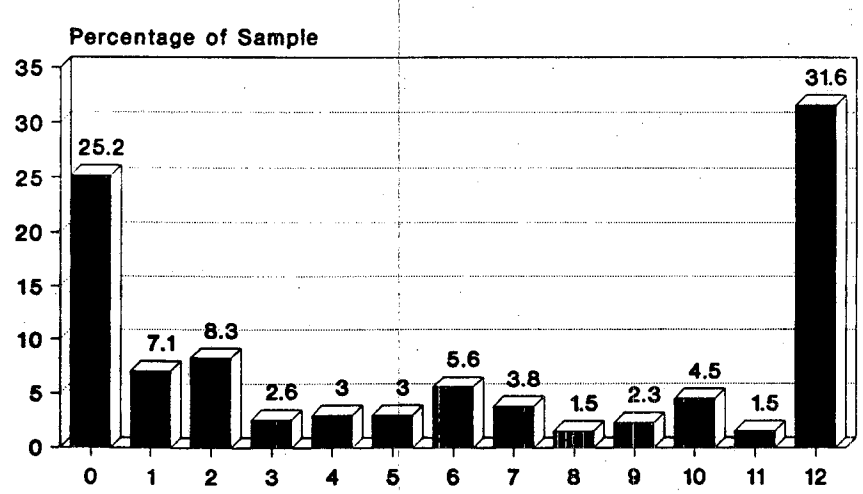
Exhibit 51
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Household Income

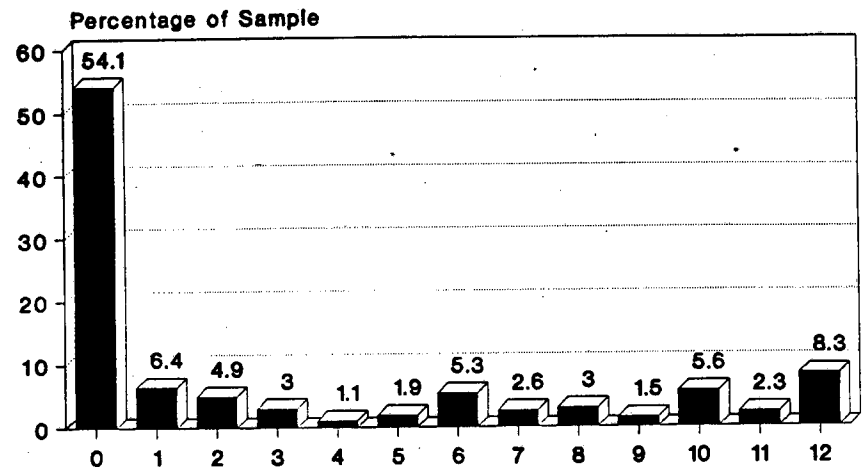
Note: Figures shown are percentages of Kotzebue sample (N=266)

Exhibit 52
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Note: Figures shown are percentages of Kotzebue sample (N=266)

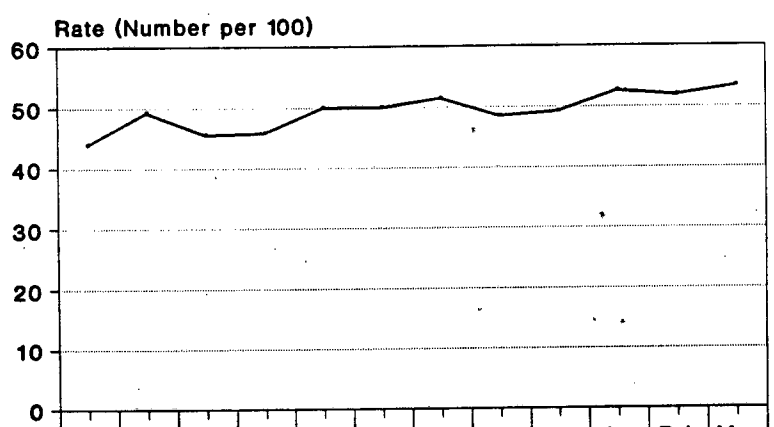
Exhibit 53
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



Months Unemployed, April 1988-March 1989

Note: Figures shown are percentages of Kotzebue sample (N=266)

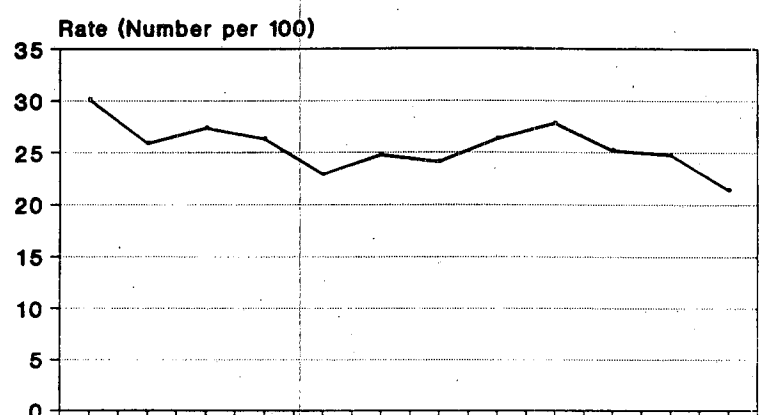
Exhibit 54
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate —	44	49.2	45.5	45.9	50	50	51.5	48.5	49.2	52.6	51.9	53.4

Employment Rate, April 1988-March 1989

Exhibit 55
Northwest Arctic Borough Survey 1989
Respondent Characteristics (Kotzebue)



	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Rate	30.1	25.9	27.4	26.3	22.9	24.8	24.1	26.3	27.8	25.2	24.8	21.4

Unemployment Rate, April 1988-March 1989

Exhibit 56: Background and Attitudes
Northwest Arctic Borough 1989 Survey (Kotzebue)

Survey Item	Yes	No	No Response
Desire training?	66.2%	19.9%	13.9%
Presently employed?	57.1%	40.6%	2.3%
Employed two weeks last year?	69.2	25.2%	5.6%
Move outside region for job?	50.0%	42.1%	7.9%
Move in Borough for job?	50.0%	42.5%	7.5%
Willing to work rotation?	63.2%	28.6%	8.3%
Have you looked for a job?	28.6%	35.0%	36.5%
Receive transfer income?	25.2%	67.7%	7.1%
Receive other unearned income?	28.6%	65.4%	6.0%
Own your home?	57.5%	36.8%	5.6%
Own NIHA house?	21.4%	68.0%	10.5%
Need new businesses in town?	74.4%	10.5%	15.0%
Arrests in household?	8.6%	75.2%	16.2%
Use social services?	6.8%	82.7%	10.5%
Expect Red Dog job?	31.6%	50.4%	18.0%
Sufficient jobs in future?	73.7%	10.5%	15.8%
Feel safe in community?	79.3%	9.0%	11.7%

Note: Figures are percentages of sample N=266.

The Calista Region

Ann Fienup-Riordan and Lynn A. Robbins

THE CALISTA REGION

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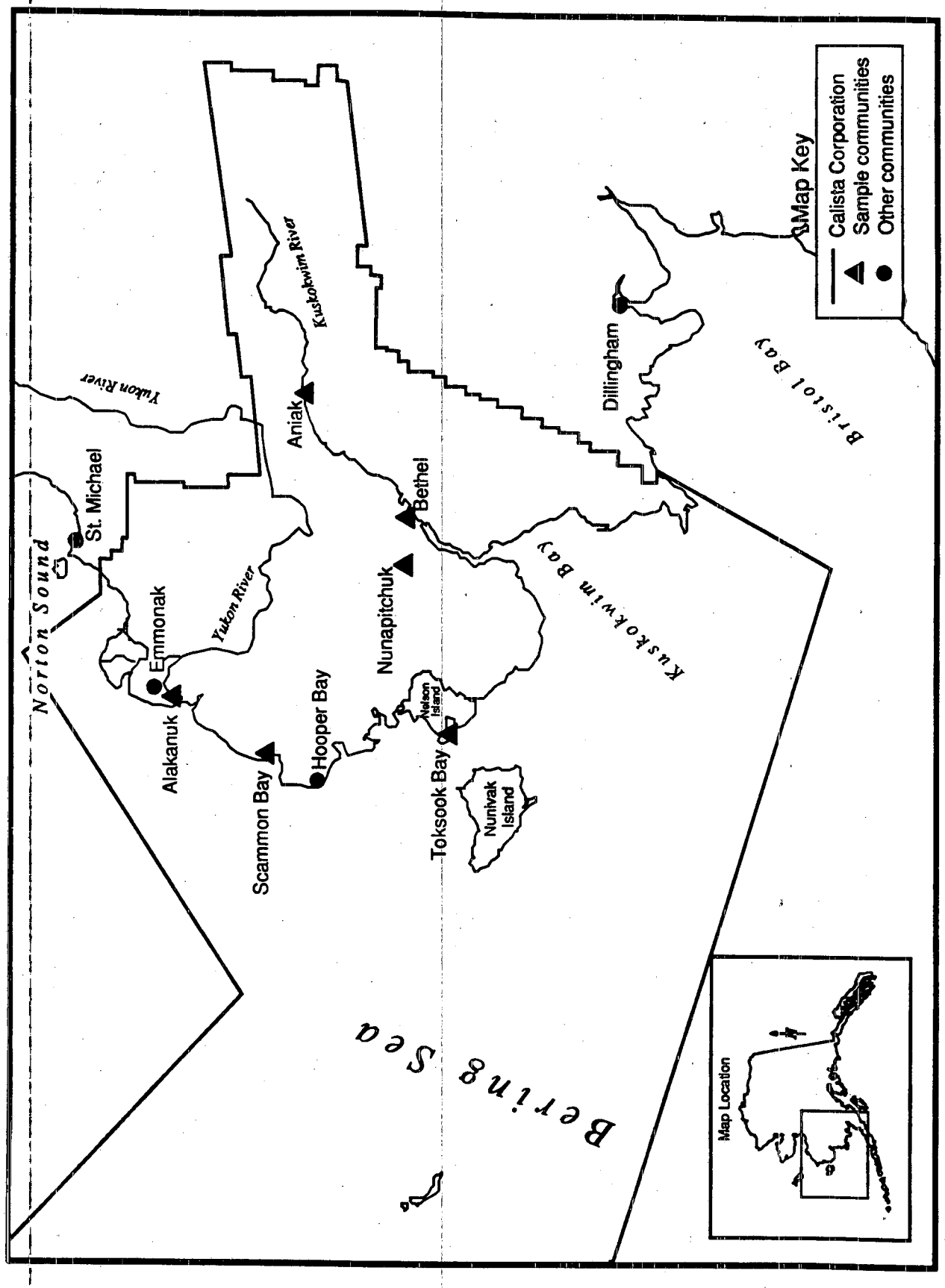

CALISTA REGION

SCHEDULE A COMMUNITIES

THE CALISTA REGION

PREFACE

This Key Informant (KI) Summary was first drafted during 1987, subsequent to the first Schedule A field season. It has been edited and revised during the years 1988, 1989, 1990 and 1991 in order to incorporate new data and discussions of changes over this interval. Field research was conducted by senior researchers in 1987 and 1989 at Schedule A sites (Aleutian-Pribilof Islands, North Slope, Calista, and NANA), and in 1988 and 1990 at Schedule B sites (Bristol Bay, Bering Straits, and Kodiak).

The seven study regions of the Social Indicators study were divided into two groups, based on concerns related to research design and efficiency of project administration. These groups are termed schedules and, as the term suggests, these groups represent not only sample portions but sampling agendas. Schedule A, of which this region is one part, also includes the North Slope, NANA, and Calista regions. Subsequent to the Exxon Valdez oil spill in 1989, the scope of the Social Indicators study was expanded, and a new sample of Cook Inlet, Prince William Sound, and Kodiak area villages was developed. This group then comprised Schedule C. These terms and their meanings in the overall research design are introduced more fully in the KI Summary Introduction and are explained fully in another project document entitled Social Indicators II: Research Methodology: Design, Sampling, Reliability, and Validity.

All of the information reported here that is based on discussions with institutional officials and residents was collected during the two field excursions in 1987 and 1989, but secondary data from other documents and archives may correspond to other years. Since

there is always a lag between data collection and eventual publication, all technical documents are dated at the time they are produced. Aside from some minor exceptions, the collection of new information ceased at the end of 1990, so this document can be considered accurate through 1990.

This report gives an overview of the social and economic characteristics of the people in the Calista Region. The region was defined by the Congress of the United States with the passage of the Alaska Native Claims Settlement Act (ANCSA) and is therefore defined as much by the Federal Government as by the local region's residents. The boundaries were chosen because, in part, they define common cultures, histories, heritages, and interests.

The Calista Region is the poorest in Alaska as measured by income, physical adversities from geographical isolation, and extremes in weather. The bulk of the inhabitants are Yupik-speaking[1] Eskimos whose ancestors entered the region several thousand years ago. These people are experiencing a cultural, social, and economic transition marked by the loss of traditional ways and the adoption of new technologies, social forms, knowledge, and ideas. This transition is painful as many persons, bereft of some of the traditional customs and habits, have difficulty adjusting to current pressures on family, the need for formal education, and the adjustments to government-dependent local economies.

---

[1]We will use the term "Yupik" without diacritics to refer to all Yupik peoples and dialects, although we recognize that some conventions use diacritics, as in "Central Yup'ik." The standard approach we use is consistent with the orthography employed by the journal Etudes/Inuit/Studies.

Educational opportunities are limited and high school drop-out rates are high, as are alcoholism and violent crimes. The region has the lowest per capita income and the highest unemployment rate in the state of Alaska. Rates of unemployment at 60 percent are common and run as high as 90 percent in some villages. The region does not have basic resources that have export potential. There has been a persistent reduction in Federal and State funding for community and economic development, and sources of private investment are very limited. There are many other obstacles to local economic development: local markets are small; energy, transportation, and infrastructure costs are high; communications are poor compared with other regions of Alaska; and the workforce is largely untrained and is growing rapidly because of high birthrates and low rates of migration out of the region. To exacerbate these problems, there is also a steady transfer of commercial fishing permits from locals to nonresidents, and there is growing competition for access to the region's fisheries resources.

Federal and State programs (and funding is declining) attempt to reduce social and health problems, although no programs seem forthcoming to reduce joblessness. Social change, health problems, and meager economic opportunities have a feedback effect, with each problem exacerbating the others. There is obviously a great need for increases in economic activity. To counteract the dismal economic trends, the Calista Regional Corporation is exploring job training; promotion of literature on business management and ownership; onshore and offshore petroleum development; expansion of commercial fisheries; and hardrock mining projects.

The people of the region have the highest incidence of major diseases when compared with any other region in the U.S. Tuberculosis, meningitis, and hepatitis occur in the Calista Region in frequencies far exceeding those elsewhere in the Nation.

(It is important to note that the Exxon Valdez oil spill occurred during the March 1989 field visit to Calista Region communities; all officials and many business persons interviewed registered disgust with the spill, outrage at Exxon, and a pronounced disapproval of oil exploration in Bristol Bay.)

The balance of this report is based primarily on four sources of information gathered during the 1987 and 1989 field seasons: (1) interviews of elected and professional persons in governments, social service agencies, and other important institutions in six communities selected for sampling (Aniak, Alakanuk, Bethel, Nunapitchuk, Scammon Bay, and Toksook Bay); (2) 28 focused interviews (key informant [KI] interviews) in 1987; (3) secondary sources such as health and revenue reports from various public agencies and newspaper articles covering important subjects since the last visit to the communities in March 1989; and, (4) direct observations by field workers. The purpose of the sampling techniques used in the study, as well as other social science techniques employed, are described in Jorgensen (1989).

I. HISTORICAL CONTEXT

Prologue

Three features distinguish the Yukon-Kuskokwim Delta region from other areas of the State. First, it lacks significant amounts of any of the commercially valuable resources that initially attracted traders, trappers, whalers, and prospectors to other parts

of the State. Although fur-bearing animals are widely distributed throughout the region, neither sea otters, bowhead whales, nor large gold or other mineral deposits occur here.

Second, this paucity of commercially valuable resources buffered the region (relative to other State regions) from experiencing the direct impacts associated with non-Native contact. Although Russian traders and Russian Orthodox priests were present in the Yukon-Kuskokwim Delta in the 1830's, many residents in the coastal areas had no sustained contacts with non-Natives until the 1920's.

Third, the Native populations of the Yukon-Kuskokwim Delta region remain traditional in many customs. The Central Yupik language is the Native American language used most often in the region. There are Athabaskan speakers in the upper Kuskokwim River area referred to as the Kolchan (the McGrath Ingalik) and there were other Athabaskans in the Anvik-Shageluk Ingalik area of the lower Yukon until the protohistoric period (Oswalt 1990:13,215). Extended family relations and subsistence harvesting activities are major foci of activity. Political activism among the Kuskokwim Eskimo has emphasized furthering Eskimo identity. The Yukon Ingalik and the Nushagak Eskimos do not support this political action and Alaskan political officials have opposed it. However, all Eskimo and Indian groups struggled to prevent loss of lands and to maintain their Native languages and dialects, as well as family organization and subsistence harvesting activities when it seemed the 1991 provisions of ANCSA passed in 1971 would require that corporations go public. This threat has diminished as a result of new amendments to ANCSA (Jorgensen 1990:292-3).

I.A. The Russian Period (1833-1867)

Russian traders and explorers were the first non-Natives to come to western Alaska. They sought to extend the domain of the Czar's Russian American Company north from the Aleutians. Trading stations were established at Saint Michael on the northern Yukon Delta in 1833, at Nulato on the middle Yukon in 1842, and at Kolmakovski Redoubt on the middle Kuskokwim in 1841. Activities at these stations did not produce wholesale changes in Native culture, although trade goods increased in availability, and Christianity was taught by Russian and Creole priests working out of Ikogmiut (Russian Mission) on the Yukon. The most significant event associated with the Russian incursion into the region was the smallpox epidemic of 1838-1839. Perhaps two-thirds of the Native population died. This disaster seriously undercut intraregional social distinctions (since previously distinct subregional groups relocated and sometimes fused after the catastrophe) while also diminishing the belief in traditional religious tenets that proved ineffective in new crisis situations. Nevertheless, subsistence harvests, household, and kinship practices remained largely the same.

I.B. Missionary Impact During the Early American Period (1885-1900)

The Russian traders and Orthodox priests exerted only modest influence although the impacts of the Catholic and Moravian missionaries in the late 1800's were much greater. The Moravians sought both to convert Natives to Christianity and to civilize them. Their work focused on transforming traditional social and ceremonial organizations; beliefs and practices associated with illness and death; and the positions of shamans within Native society. As early as 1895, they were successful in destroying the

major external barriers to conversion in the community of Bethel which they had founded 10 years before. For Natives located just 20 miles to either side of the Bethel Mission, the traditional ceremonial round remained alive and well into the 20th century, in part because of Moravian concentration on the Bethel Native population.

The Jesuits established the mission of Akulurak at the mouth of the Yukon River in 1893, but it was not until after the worldwide influenza epidemic of 1900 that they began to make converts. These were drawn from orphans trained in their mission school. The population of the region's middle coast had no resident priest until the 1930's.

I.C. The Territorial Era: Commerce and Influenza

The year 1900 constitutes a major marker of change in the Yukon-Kuskokwim Delta region. The influenza epidemic that arrived in western Alaska with the annual supply vessels would, over the next 3 months, cut the Native population in half. Although the coastal communities were not as severely affected as those upriver, several winter villages on the Yukon and Kuskokwim Rivers were abandoned because of the epidemic.

Concurrent with the sharp decline of the region's Native population was an increase in the region's white population. In 1900 discovery of a gold deposit was reported on the Yellow River, a tributary of the Kuskokwim River near the modern town of Aniak. This news reached miners in Nome where gold had been mined since 1897. Some miners arrived in Bethel by mid-September of 1900, and soon miners estimated in the hundreds were exploring the headwaters of the Kuskokwim River, portions of the

Stony River, and the Yellow River (Oswalt 1990:100-101). Stern-wheelers were relocated from Nome to transport and supply the prospectors working along the rivers. Mining camps were typically established at the headwaters of streams and, in this way, were removed from major centers of Native population. Nevertheless, the presence of prospectors along the rivers meant an increased availability of trade goods and the establishment of a local cash economy. The miners found insufficient quantities of gold at these sites. However, there was a new strike near the Innoko River above what is now Holy Cross. Word of this strike brought more than 800 prospectors from Fairbanks and several hundred from Nome. Claims were made on nearly all creeks of the upper Innoko. Gold from some of these sites and others on the Takotna River and some of its tributaries was mined intensively. Large mines were located on Bear Creek, a tributary of the Tuluksak River about 100 miles northeast of modern Bethel, and Georgetown in the central Kuskokwim near the George River. The Bear Creek operation continued into the 1980's. Georgetown was settled in 1909 and was occupied year-round by about 400 whites until 1911.

Although the Yukon-Kuskokwim region was integrated into the worldwide economy, albeit in a peripheral way, the Natives had less access to information, productive resources, and capital, and less control over local business than did their white counterparts. Native labor to procure naturally occurring resources found a niche in the market but not so much as to provide a multiplier for the growth of Native-owned and controlled businesses. The market for Native products was determined by the needs of local whites. In some instances (e.g., attempts by whites to expand the fur trade),

Natives chose not to respond to outside pressure and continued to put primary emphasis on traditional pursuits.

Through sale of fish and cordwood to the miners and ship captains, as well as an expanding fur market, the Natives living along the Yukon and Kuskokwim Rivers made substantial changes in their way of life. In 1916, the regional superintendent for the Bureau of Education, John Henry Kilbuck, wrote with satisfaction that most Kuskokwim Natives lived in log cabins heated with cast-iron stoves, ate homegrown turnips and potatoes from graniteware dishes, possessed at least some Western clothing which they could mend on their own treadle machines, and used soap (Kilbuck 1890-97). They received education, health care, and Christian teachings from Federal employees and missionaries.

These innovations were largely restricted to the Natives living along the middle Kuskokwim including Bethel and Aniak. Natives living in the vicinity of Nunapitchuk, Toksook Bay, Scammon Bay, and Alakanuk, although cognizant of the social and cultural changes that were taking place in river communities, continued to live in extended family groups in semisubterranean sod houses. Their lives were focused on the seasonal migrations of the sea mammals, waterfowl, and fish on which they depended.

Although much had changed in the Yukon-Kuskokwim Delta region by the end of the territorial era, much also remained the same. Even along the Kuskokwim, where contact between Natives and non-Natives had been the most sustained, the continuities between the past and present were perhaps as significant as the innovations. Oswalt (1980) notes that by 1920 there was a successful introduction of a variety of

technological, social, religious, and political innovations along the Kuskokwim; nevertheless, the Yupik population still spoke Central Yupik, enjoyed a rich oral tradition, participated in large and significant ritual distributions of foods and other goods, and focused their lives on extended family relations that were bound to the harvesting of fish and game. They were neither gardening nor reindeer herding regardless of Bureau of Indian Affairs (BIA) efforts to encourage them to do so. Although the Native population had declined dramatically and was physically weakened by introduced diseases, the geographical and commercial isolation of the region appears to have been a crucial factor in inhibiting change. There is an apparent continuity in significant cultural complexes that still characterizes present-day life in western Alaska.

I.D. Statehood

At the close of the territorial era, Yukon-Kuskokwim villages still practiced many customs and maintained many beliefs that had characterized them a century earlier (see Fienup-Riordan 1982, 1983 and 1986 for ample descriptions of these continuities). The paucity of resources valued on the world market and geographical isolation limited contacts from non-Native society. At the time of statehood, when Alaska Natives in general were seen as an extremely disadvantaged group, non-Natives viewed the Yupik Eskimos of the Yukon-Kuskokwim Delta region as one of the most impoverished Native groups. Compared with the other areas of rural Alaska, the availability of Western material goods was minimal, modern housing was nonexistent, and educational levels were extremely low. A TB epidemic, as destructive as the influenza and smallpox epidemics that had preceded it, was running rampant.

In the 1960's, Federal Government "War on Poverty" programs aimed at solving some economic and social problems in the region were set in motion. These were followed by the passage of ANCSA in 1971 which extinguished aboriginal land claims and gave Alaska Natives fee simple title to 44 million acres of land and nearly one billion dollars. The act also set up twelve regional (and one nonresident) profit corporations as well as individual village corporations to administer the land and money received under ANCSA.

The Molly Hootch decision followed in 1976, mandating the establishment of local high schools in the smaller communities of the region that had previously sent their children to boarding schools in Bethel, Saint Mary's Mission, or outside the region. Both of these pieces of legislation were critical in reforming village organization and economy. Jointly, these acts and decisions of the 1960's and 1970's are responsible for shaping the modern Calista villages (see below).

Since 1968, government programs have existed in the Delta region to establish minimum standards for schooling, housing, sanitation, health and nutrition, and social services. These programs, funded largely by the increased prosperity of the State of Alaska from oil developments on the North Slope, have greatly improved the health and material well-being of the region's Native population. They have, however, created a condition of dependence on State and Federal funds and have worked against local self-sufficiency.

II. POPULATION AND DEMOGRAPHY

The first part of this chapter presents data on the crude birth and death rates, and the ethnic, gender,[2] and age composition of the region. The second part examines the total populations of the sampled communities from 1890 to 1988, and compares the growth rates of these populations.

II.A. Demographic Trends: 1890-1988

The 1980 census recorded a total of 15,664 people in the Calista Region. Of this total, 13,279 were Natives (84.8%), 8,253 were males (52.7%), and 7,411 were females (47.3%). Just over 83 percent of the males and 86.3 percent of the females were Natives (Bureau of the Census 1982). Population projections suggest a continued average annual increase of at least 3.6 percent (the average growth rate between 1980 and 1985). The 1985 population was estimated to be 18,497, and in 22,025 in 1990.

The crude birth rate (number of births per year per 1,000 persons) was 33.9, compared with the State's rate of 24.3 in the same year. Approximately 40 percent of the Calista Region residents are 16 years of age or younger, a demographic reality that will result in a rapidly growing need for new jobs. During the decade from 1970 to 1980, crude birth rates averaged 29, 4.9 fewer than the 1985 rate and about 7 higher than the State of Alaska average. The crude death rate in the Calista Region in 1985 was 7.5 compared with 3.9 for the total Alaska population (Alaska Department of Labor 1987). (Mortality and health are discussed in Chapter III.)

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[2] At the request of the Minerals Management Service, the word "gender" is used in place of "sex," the more common term in demography. This convention will be used in all KI summaries.

Table 1 gives the population of each of the six sample communities in the Calista Region from 1890 to 1988. Estimated population increases from 1980 to 1988 for each village and town are shown in order of magnitude in Table 2.

Table 1

POPULATION OF CALISTA SAMPLE VILLAGES, 1890-1988

Year	Toksook Bay	Scammon Bay	Alakanuk	Nunapitchuk	Bethel	Aniak
1890					20	
1910					110	
1940		88	35		375	122
1950		103			651	255
1960		115		327	1,258	308
1964	160					
1970	257	166		526	2,416	205
1980	333	258	522	299	3,576	341
1987				365		
1988	421	308	565	372	4,390	558

Sources: Alaska Department of Labor 1987; Alaska Department of Community and Regional Affairs 1991.

Table 2

POPULATION INCREASE OF CALISTA SAMPLE VILLAGES, 1980-88

	Frequency	Percent Increase	Percent Annual Increase
Aniak	217	63	8.0
Nunapitchuk	73	24	3.0
Bethel	814	23	3.0
Scammon Bay	50	19	2.4
Toksook Bay	88	26	3.3
Alakanuk	43	8	1.0

Sources: Alaska Department of Labor 1987; Alaska Department of Community and Regional Affairs 1991.

In 1980, there were 5,329 people in the six communities; in 1988, there were an estimated 6,614, an increase of 1,285 people (24% growth in population). The 8 years, therefore, brought an annual average rate of growth of 3 percent. At this rate, the population would double in 23 years. This compares with nations whose birth rates are among the highest in the world, and there is no reason to believe the population growth rate is attributable to anything but a high birth rate and a low rate of outmigration. There is some outward movement within the Calista Region, and since Bethel's rate of growth is in excess of the growth of Scammon Bay and Alakanuk, Bethel is the likely destination of perhaps most of the recent regional migration.

III. COMMUNITY ORGANIZATION AND ECONOMY

III.A. Governance

As is generally true in rural Alaska, most communities in the Yukon-Kuskokwim Delta region are incorporated as second class cities. (These cities are chartered by the State of Alaska. They have elected councils and mayors selected by the councils, and very limited taxing powers compared with first-class cities.) Major decision-making bodies in each community include the city council, the local village corporation board, the school board, and a local traditional or Indian Reorganization Act (IRA) council. Regional, subregional, and village representatives are also regularly elected to serve on the boards of the Calista Corporation (the regional for-profit corporation set up under ANCSA), the Yukon-Kuskokwim Health Corporation (YKHC), the Association of Village Council Presidents (AVCP) (the regional nonprofit corporation set up under ANCSA), and the Ceñaliulriit Coastal Management District.

There is a high degree of political pluralism in western Alaska. Pluralism has long characterized the area and neither the regional profit nor the regional nonprofit corporations mandated by ANCSA (e.g., Calista and AVCP) have been able to eliminate it. Whereas in northwest Alaska the Northwest Alaska Native Association (NANA) Corporation has taken the lead in regional economic development and a cultural reform movement (self-conscious adjustment to rapid change), the Calista Corporation has not stimulated economic development in the Yukon-Kuskokwim Delta region, despite its many efforts to do so. In 1976, in response to what was considered Calista's unresponsiveness to local needs, six villages in and around Nelson Island coalesced to

form the Coastal Management Corporation (CMC). They sought autonomy from regional oversight. The continued unity of the coastal communities in the face of new village identity on the one hand and regionalization on the other (they took their money out of Calista to directly oversee its investment) is marked by the adoption of this corporate structure.

With village funds from ANCSA allocations, CMC turned down investment possibilities in Anchorage to purchase an air taxi service, hoping to exert control over a vital service in western Alaska as well as the profits it earned. This was a risky undertaking, and it subsequently failed. However, the choice of an air taxi investment indicates commitments by the CMC to its constituents in the subregion, as opposed to the region as a whole (Fienup-Riordan 1982:421-2).

For similar reasons, the upriver Kuskokwim Eskimos from Lower Kalskag to Stony River have organized themselves into the Kuskokwim Corporation to serve local needs directly. Key informants perceive that the Calista Corporation is a potential threat to their futures as it continues to lose money through poor investments largely made and managed outside the region. By 1985, Calista had lost nearly 43 million dollars, retaining assets of 79 million dollars, and in 1986 another 7.5 million dollar loss was sustained (Lenz 1986b:1, 22). The Calista Corporation has performed poorly primarily because of small local markets, high transportation and energy costs, poor communications, an untrained workforce, and high infrastructure costs. Moreover, poor management decisions in the early years of Calista's operation created resentments against the organization by many local residents. Most of the people interviewed made

derisive remarks about the corporation, and they often stated that its headquarters in Anchorage was too far from the region and that the officers were self-serving.

The regional nonprofit organizations, the AVCP, and Nunam Kitlutsisti (Save the Land) are perceived more positively by key informants throughout the region than are the profit corporations. These nonprofit organizations are in reasonably good standing within the region, and they are increasingly effective in their management and oversight of local programs. Allegiance on the part of affiliated villages is contingent on these organizations' abilities to meet highly specific local needs.

A significant recent political development in the Yukon-Kuskokwim area has been the establishment of the Yupik Nation (the Nation of the Real People) which originated in the village of Akiachak. In 1974, Akiachak voted to become a second-class city governed by a city council. Second-class status gave the community access to both State and Federal funds that were not previously available to them. By 1983, however, the Native population of Akiachak had become increasingly dissatisfied with this government structure and was concerned that if it continued it might favor the community's growing non-Native population.

As a result, the city government was disbanded and replaced by tribal government. City council members resigned, a special election was held, and Akiachak withdrew from the status of second-class city. The rationale behind this move involved a number of related concerns:

1. In 1983, Akiachak's population was 10 percent non-Native. Native residents feared that this population would continue to grow and that the non-Native

sector of the population would gradually gain control over city government. By replacing city with tribal governance, which is by definition controlled by the Native community, they were protecting themselves from this eventuality.

2. The residents of Akiachak were also responding to the concern shared by many Alaska Natives that under the terms of ANCSA (as presently written) village lands might be lost after 1991 when village corporation stock became salable. By transferring title of village land to a tribal government, Native residents hoped to retain control over their land.

3. The Native residents of Akiachak also desired increased control over the local school administration. Residents hoped that through a tribal government they would be able to contract directly with the State to manage the local school, rather than continue to be part of the regional school district (the Lower Kuskokwim School District) which was administered out of Bethel and which they felt to be unresponsive to local needs (Oswalt 1990:196).

The goal of the Yupik Nation, which has since grown to include over a dozen other Delta communities, is ultimately more control over their schools, governmental functions, the services offered within their villages, and, perhaps most important of all, their land and resources. Although independence is desired, the Yupik Nation communities continue to be dependent on State and Federal funding for the maintenance of health and educational services. As a result, the continued existence of these services requires that they successfully convince funding agencies that they have legal standing, mandates, and expertise to receive and manage such funds. For example,

in 1986, Akiachak applied for and was granted $500,000 by the Indian Health Service to upgrade sewage disposal, along with additional funding provided by the State for the same purpose.

A major factor in the future of tribal government in Akiachak and other Yupik Nation villages will be their ability to continue to receive support in the future. The emergence of the Yupik Nation also has generated conflict between the Yupik Nation and the Calista Corporation. Moreover, this political movement which seeks to incorporate more Yupik villages is perceived as a threat to lobbying efforts by the Alaska Federation of Natives (AFN). Since 1984, the AFN sought Congressional action to amend ANCSA. These and other efforts culminated in the 1988 amendments. Among other issues, protection against corporate takeovers after 1991 was central. Finally, the Yupik Nation has grown rapidly, although it has not obtained unanimous support within the region. Although many villagers agree with the organization's goals, there is disagreement concerning means.

It is unclear whether the Yupik Nation will succeed in reorganizing regional polities or in inhibiting undesirable cultural changes, but large scale reform is clearly sought by the Yupik Nation. The reform movement represents a significant attempt at political unification in the face of regional, State, and Federal obstacles. It is an obvious indicator of increased political consciousness within the region (see Sec. V.C., Ethnicity and Tribalism for additional analysis of the Yupik Nation).

The three most significant features of village economy in the Yukon-Kuskokwim area are the dependence on government, underemployment, and the importance of

subsistence harvests. A small portion of the aggregate local income is derived from commercial fishing and trapping, craft sales, and local service industries. The far larger portion of income (as much as 90%) flowing through the village economies comes from the public sector. Wages and salaries paid to teachers, administrators, construction workers, health workers, and social service workers comprise some of the public sector income, as do transfer payments made directly to households and grant and loan monies for the purchase of heavy equipment, fuel, and miscellaneous supplies for public use (see Marshall 1987). As a consequence, most local service and distribution businesses in the private sector are dependent on purchases made by persons and organizations that are dependent on public sector income transfers.

This clear dependency on public sources of funding is evident in local employment. For example, in 1982, Alakanuk had a total of 81 full-time jobs, only 16 of which were in the private sector (Fienup-Riordan 1986). The 81 jobs represent a significant increase from previous decades, yet 81 jobs are far fewer than the number of adults seeking employment in this village of over 525 persons. High rates of chronic unemployment and underemployment are the result. Employment is likely to decrease with the plunge in State oil revenues. Currently, several village corporations are discussing ways to develop local industries. The Alakanuk Village Corporation actually purchased a salmon processing vessel in 1986, the Toksook Bay Village Corporation has plans to develop a commercial bottom fishery, and the Scammon Bay Village Corporation is interested in purchasing a tank farm and fuel service.

Although there is considerable variation in the proportion of household incomes that are invested in the harvest of naturally recurring resources, in the coastal communities most households invest over 20 percent of their income into those pursuits. Over 75 percent of the protein in household diets is derived from those resources. Even in the more prosperous communities with higher levels of fulltime employment, large amounts of cash are allocated for the harvest of fish and game for household subsistence. This pattern serves to emphasize both the importance of cash income to underwrite subsistence pursuits, as well as the inability of wage employment to supplant subsistence-harvesting activity.

To understand the constraints placed on the use of cash in household budgets, we need merely to assess the prices of commodities in each village, including food, gas, oil, and technology for subsistence harvests (e.g., skiffs, outboard motors); then we compare those prices with the proportion of the diet gained from naturally occurring resources. High prices and low, unstable incomes encourage allocation of cash to items that will assist in subsistence harvests.

The prices and income data presented above were recorded in 1987 (Riordan-Fienup 1988:21-27). They varied throughout the region and small more traditional villages, such as Toksook Bay and Scammon Bay, paid higher prices for food than residents of other villages. Aniak and Bethel food shoppers paid the lowest average prices according to the data recorded in 1987. They did so presumably because they could (and can) make considerable savings by comparative shopping.

Bethel and Aniak prices were lower than those of other villages partly because Bethel and Aniak have larger populations, considerable purchasing power, large storage facilities (to facilitate bulk purchases), lower transportation costs (Bethel is a transportation hub), and leverage to gain discounts for early payment of wholesale food bills. Aniak's location may increase the transportation costs for food purchased there; inflation which accompanies rapid growth may affect prices both in Bethel and Aniak. Whatever the reasons may be, the differences among the villages were not so great as anticipated, and they were even less so when one looks at the 1989 prices (these will be examined shortly). The Yukon Delta village of Alakanuk and the tundra village of Nunapitchuk had the lowest prices, yet the former is more "progressive" and the latter is more "traditional." The villages are alike, however, in that the retail industry in each is dominated by a single highly motivated entrepreneur who has for at least a decade worked to establish his store's reputation as being the best stocked and having the best prices.

For example, since 1978, David Jorgenson has owned and operated Alakanuk's biggest store. In the last 7 years, he has built a larger building, enabling him to use the older structure as a storage warehouse. This situation has increased his ability to order in advance, buy in bulk, and have the better part of his stock brought in on the summer barges, rather than by air with its higher freight charges. All of these factors have enabled him to keep his prices the lowest in the village while allowing him to make a substantial profit. Jorgenson has a reputation both for fairness and for his business acumen. His father was a Swedish immigrant who also operated a store in the region.

The only significant competition Jorgenson has experienced has come from a store opened 7 years ago on the other side of Alakanuk slough by the four Alstrom brothers who are also not full-blooded Eskimos. The Native corporation store opened in the mid-1970's has been rife with managerial problems over the years and is not competitive with either of these enterprises.

III.B. Recent Trends in Commerce, Industry, and Governance

The following subsection includes more recent information on economic activities and governing organizations.

Housing in the Calista Region is crowded and in poor condition, particularly for the Native people. The average number of persons per household in Native households is 4.9, compared with 3.7 for the all-Alaska average, and 2.2 for non-Native households in the Calista Region. The national average is about 2.2 (Calista Corporation 1991:76). Over 16 percent of the region's households had 3 or more generations living in them year-round, compared, for example, with 90 percent of the households with a similar composition in Anchorage. The Alaska Department of Regional and Community Affairs reported in 1991 that 97 percent of the Calista Region households had no indoor plumbing, 98 percent lacked running water, 19 percent of the houses needed to be replaced because of overcrowding and poor condition, and the average number of square feet of living space per house was 661 compared with the average for Alaska of 1,162 and 1,635 in Anchorage (Alaska Department of Community and Regional Affairs 1991).

The cost of living in the villages of the Calista Region is very expensive. According the data presented in the 1991 Calista Native Corporation report, a family of

four spends between two and three times more for goods, utilities, and other household items than a comparable family in Anchorage (Calista Native Corporation 1991:161). As for family expenses, a 1986 survey (sample size and communities surveyed are unspecified) cited in the 1991 Calista Native Corporation gives the following breakdown of average family expenditures: food, $8,008 (43%), subsistence gear, $2,822 (15%), heating fuel, $2,400 (13%), utilities (electricity and telephone), $1,308 (7%), transportation and travel, $1,085 (6%), clothing $856 (5%), housing and building materials, $801 (4%), household goods (major items), $666 (3%), and other items (health, savings, and a miscellany of other items) made up the remaining 4 percent. The average household income in this survey was $18,676. An estimated 55 percent of an average household diet was met through subsistence pursuits (Calista Corporation 1991:162).

Table 3 presents prices recorded in 1989 for various marketbasket items in five of the six communities selected for sampling in the Yukon-Kuskokwim region. The average price across the five villages is shown followed by figures with plus and minus signs. Amounts above or below the average are presented in dollar figures on the top line and in percentages on the bottom line. Prices for Toksook Bay were not available. The extremes were between Aniak, with the highest costs, and Scammon Bay with the lowest. The difference is $10.31, or 17 percent of the average annual cost of the items listed in Table 3.

Table 3

RETAIL FOOD PRICES, SAMPLE VILLAGES, 1989

Food Item	Scammon Bay	Alakanuk	Nunapit-chuk	Bethel	Aniak
White flour, 10 lbs	$ 6.10	$ 6.09	$ 6.10	$5.65	$ 6.25
Evaporated milk, 12 oz	.85	.89	.98	.79	.95
Onions, 1 lb	1.35	2.45	2.37	2.37	1.35
Salad oil, 48 oz	4.75	4.95	6.49	4.75	5.85
Cola, 6 pk	4.50	4.14	3.90	3.59	4.50
Gran. sugar, 10 lbs	6.15	7.05	7.99	7.59	6.50
Cornflakes, 24 oz	4.39	4.15	4.15	4.35	4.39
White bread, 1 1/2 lbs	2.35	1.85	2.35	2.29	1.99
Bacon, 1 lb	2.99	2.49	3.50	2.39	4.15
Coffee, 2 lbs 7 oz	11.39	10.15	12.10	11.39	14.05
Butter, 1 lb	3.25	2.45	2.15	3.15	4.79
Powdered milk, 12 qt	8.29	7.25	8.70	7.95	8.89
Punch mix, 22 oz	3.45	3.99	3.65	3.79	4.25
	$58.60	$57.60	$64.43	$60.05	$67.91
Average = $61.72					
Absolute difference:	-3.12	-4.12	+2.71	-1.67	+6.19
Proportional difference:	-.05%	-.07%	+.04%	-.03%	+.10%

Source: Field notes, March 1989.

Table 4 gives prices of nonfood items in samples of commercial outlets in the communities. The highest prices listed in Table 4 were in Alakanuk (9% above the average) and the lowest in Scammon Bay (13% below the average). Bethel prices were close to Scammon Bay prices. Bethel, the administrative center of the Calista Region, was below the average in prices for both food and hard goods; Aniak was the most expensive community to live in, as measured by price comparisons in Tables 4 and 5.

The major differences between Scammon Bay and Bethel and the other regional communities were in the prices of boats and motors. Prices were very similar otherwise. In Table 5, we compared the 1989 prices with those from a previous and similar survey conducted in 1987 (Fienup-Riordan 1988:21-27). Food and nonfood items increased about 4 percent from 1987 to 1989.

The average increase in the communities was 4 percent for food prices (2% per year) and for nonfood goods (also an average of 2% per year). Overall, the cost of living rose 3.7 percent, judging from the prices of the items selected for sampling. This increase was lower than the national average of the Consumer Price Index (CPI) of about 8 percent (4% per year). The CPI includes housing, whose prices have risen considerably in the nation as a whole, but in the Calista Region housing costs have remained stable.

The figures given in Table 5 show some large differences between communities. Nunapitchuk and Aniak residents experienced significant increases in prices (about 15% and 9%, respectively). These figures could be short term or anomalous, given the nature of the small time interval between sampling periods. Many residents (unspecified in

Table 4

RETAIL NONFOOD PRICES, SAMPLE VILLAGES, 1989

Nonfood Item	Scammon Bay	Alakanuk	Nunapit-chuk	Bethel	Aniak
Duracell Alkaline D Batteries	$ 5.19	$ 2.59	$ 3.85	$ 4.19	$ 4.19
Stove Fuel, 1 gal (Blazo)	8.00	6.79	7.99	7.99	7.99
Outboard Motor, 35 hp	2,100.00	2,895.00	2,550.00	2,075.00	2,795.00
Toddler Pampers, 12	6.95	7.25	7.25	6.99	8.55
Axe Handle	8.99	7.99	8.45	11.39	8.99
Coleman Lantern	66.00	66.00	66.00	59.00	66.00
Skiff, 16 ft	2,100.00	2,450.00	2,400.00	2,450.00	2,450.00
Gasoline, 1 gal	1.95	1.90	1.70	1.56	1.90
Motor Oil, 1 qt	2.75	2.24	2.00	2.30	2.25
Totals	$4,299	$5,432	$5,047	$4,618	$5,344
Average = $4,948					
Absolute difference:[a]	-649.00	+484.00	+99.00	-330.00	+396.00
Proportional difference:	-.13%	+.09%	+.02%	-.07%	+.08%

Source: Field notes, March 1989.

[a]Figures and percents refer to figures above and below the average.

Table 5

PRICE INCREASES AND DECREASES IN FOOD AND NONFOOD GOODS FROM 1987 TO 1989, IN SIX CALISTA COMMUNITIES

	Toksook Bay	Scammon Bay	Alakanuk	Nunapitchuk	Bethel	Aniak
Foods	NA	-13	+12	+14	+1	+10
Nonfood	NA	-11	+6	+15	0	+9

Source: Field notes, March 1989.

interviews) of Bethel make bulk purchases in Anchorage, and retail and wholesale merchants frequently express concern over the loss of business to outside companies. There is considerable talk about the competition, but little careful analysis of ways local companies can underprice the Anchorage suppliers.

Hourly rates for a sample of services are shown in Table 6. In all of the communities, there is a great deal of bartering and swapping of goods and services. Many of the services recorded in Table 6 are subject to these kinds of transactions, and because of this, it is difficult to estimate precise cost-of-living figures. Many people give services to kin, friends, and neighbors without payment. Wages in 1987 and 1989 are very similar. There is a greater variation in rates in Bethel and Aniak in 1989 than in 1987; these differences might be reflections of sampling. The differences do not show a trend. Hourly rates for services are higher in Bethel and Aniak, the two most prosperous of the sampled communities in this region.

The differences in labor charges were accounted for by the contrast in the professional nature of some services in Bethel and Aniak (excluding electricians' labor) compared with other communities. Welding, motor repairs, carpentry, and electrical work are offered without expectation of entrepreneurial profits. These services are made available as gestures of friendship and mutual assistance rather than business ventures.

Income figures for the communities recorded by the Alaska Department of Revenue are presented in Table 7, and they are based on individual Federal tax returns for 1978, 1981, 1982, 1983, and 1985. These are the only years for which figures are available; they have not been recorded by the department since 1985. We include them

Table 6

LABOR SERVICES COSTS, SAMPLE VILLAGES, 1989[a]

	Toksook Bay	Scammon Bay	Alakanuk	Nunapit-chuk	Bethel	Aniak
Motor Repair	-	-	$10.00	$20.00	$32.00	$40.00
Net Hanging	-	-	9.00	200[b]	200[b]	-
Spot Welding	-	8.00-16.00	7.00	1.50[c]	40.00	25.00 (minimum)
Rough carpentry	-	9.00-18.00	8.00	10.00	25.00-35.00	10.00-15.00
Plumbing	-	-	15.00	15.00	25.00-65.00	15.00
Electrician	-	-	10.00	10.00	25.00-65.00	15.00
Native Healer	-	-	-	-	-	-

Source: Field notes, March 1989

[a]Hourly fees, except where noted.
[b]150 fathom net.
[c]spot, per rod.

Table 7

AVERAGE TAXABLE WAGE INCOME[a]

	1978	1981	1982	1983	1984	1985
Toksook Bay	5,818	8,343	8,329	12,202	10,786	10,100
Scammon Bay	5,835	10,350	12,422	12,382	10,889	12,398
Alakanuk	6,565	11,349	13,891	12,513	11,503	12,563
Nunapitchuk	5,901	7,720	8,461	10,195	9,022	9,210
Bethel	15,278	20,324	22,442	24,344	25,285	26,863
Aniak	12,257	19,095	18,380	21,496	23,924	23,523

Sources: Alaska Department of Revenue 1985, 1988.

[a]For the years 1978, 1981, 1982, 1983, 1984, and 1985.

because they allow us to make important distinctions among communities and to show trends. The figures, of course, do not bring the reader up to date, and they do not reflect the changes in economic circumstances in the State since the abrupt downturn in oil prices in 1986 from $34 per barrel to about $10 in 1987.

In 1985, the average taxable income in Bethel was $26,863. The following incomes were reported for several other Alaska cities and towns in 1985: Anchorage ($31,748), Barrow ($34,401), Dillingham ($24,449), Kotzebue ($25,531), and Nome ($26,619). Bethel and Nome are nearly identical; Bethel is slightly higher in income than Dillingham and Nome, and below Anchorage and Barrow. From 1978 to 1985, percent of wage increase rose from only 56 percent in Nunapitchuk Bay to 112 percent in Scammon Bay. The other communities showed the following percents of increase:

Aniak, 92 percent; Alakanuk, 91 percent; Bethel, 76 percent; and Toksook Bay, 73 percent. These increases are above the national rate of inflation for the period 1978 to 1985. They reflect the relative prosperity brought to the region by the business and State economic activities associated with North Slope oil developments.

On the basis of wages alone, Bethel residents were much better off than residents in all other Calista sample communities except Aniak. The average of the 1985 wages is $20,100, with each community being weighted by its proportion of persons who submitted tax returns.

Bethel is above this average by 34 percent and Aniak is 17 percent above; Alakanuk is 34 percent below the average, Scammon Bay is 38 percent below, Toksook Bay is 50 percent below, and Nunapitchuk is 54 percent below. These differences remained about the same throughout the 1978 to 1985 period, and they very likely show a persistent relative difference in personal and household wealth among the communities. The figures exclude some other kinds of income such as pensions and dividends, but, for the most part, wage income seems to best represent the financial well-being of households and individuals.

The 1987 average household income for the region was $17,678, according to the random sample of 28 adults residing in 28 separate households. This average was about $2,500 below the average tax return income in 1985 for the six sample communities. In the 1989 sample of 92 randomly selected adults in the region (the AOSIS Questionnaire Informant [QI] sample), 56 percent had household incomes of less than $20,000. This

income level was lower than reported figures in 1985 mainly because the 1989 sample included some households that depended exclusively on transfer payments.

The figures in Table 7 show that Bethel and Aniak are much more prosperous than the four other communities in the sample. The differences in income and cost of living reflect considerable variation in material standards of living. The averages for each community do not show the distribution of income within each community. The QI random sample of 92 households in 1989 showed that 12 percent of the households received less than $5,000 per annum, 30 percent received less than $10,000 (this includes, of course, the 12% that received less than $5,000), 51 percent received less than $20,000, and 70 percent were below $40,000.

Employment data collected and reported by the Alaska Department of Labor do not give information on each community in the Bethel Census District where most of the Calista Region villages are located. Nevertheless, information from some of the department's reports is worth presenting to supplement the figures given below.

The Bethel Census District had an estimated labor force of 4,503 persons in 1987, 4,911 in 1988, and 5,082 in 1989. The unemployment rates (annualized) for the same 3 years were 10.5 percent, 8.2 percent, and 5.9 percent, respectively. This decline in unemployment was caused by employment at the Exxon Valdez oil-spill cleanup (Alaska Economic Trends 1990:18). We do not know the extent to which each of the study villages was affected by employment in Prince William Sound. The Alaska Department of Labor report for the first month of 1990 gave the following preliminary estimates on employment: 4,787 persons in the labor force and an unemployment rate of 5.1 percent.

The December 1989 unemployment figure was 4.3 percent (Alaska Economic Trends 1990:24). These figures do not include persons who have made no attempt to find work in the 4-week period up to and including the week that includes the 12th of each month. There are surely many persons in the villages who escape the category "unemployed" who should rightfully be recorded as such.

The Calista Native Corporation's 1989 report provides further insight into employment (Calista Corporation 1989). The 1989 report states that in most villages joblessness during the winter months runs from 80 to 90 percent, and in summer joblessness drops to 40 percent as the fishing season and summer construction projects get underway. Furthermore, the State of Alaska does not distinguish persons in the labor force by race; therefore, the unemployment rates for Natives are hidden in the aggregate figures.

Table 8 shows the types of facilities and services, or lack thereof, available in each of the communities as of 1989. The availability of these services had not changed since similar data were recorded in 1987.

Bethel: Bethel is the administrative and commercial center of the Calista Region. In the 1960's, Bethel had a population of about 1,500 persons, living conditions were generally poor, and the community was much more isolated in terms of transportation, communications, and commerce. The town changed greatly from 1977 to about 1983, largely as a result of State taxation of oil produced on the North Slope and the creation of the Calista Native Corporation and several Native village corporations. Because of

Table 8

FACILITIES AND SERVICES, SAMPLE VILLAGES, 1989

	Toksook Bay	Scammon Bay	Alakanuk	Nunapit-chuk	Bethel	Aniak
Health Clinic/Hospital	yes	yes	yes	yes	yes	yes
Sewer System	yes	yes	no	no	partial	yes
Family Counseling	no	no	no	no	yes	no
Airport Radar System	no	no	no	no	yes	no
Community Elec. System/Power Plant	yes	yes	yes	yes	yes	yes
State Police	VPSO[a]	VPSO	VPSO	VPSO	yes	yes
Jail	holding cell	holding cell	holding cell	holding cell	yes	holding cell
Grade School Since	1964	1960's	1962	1970's	1886	19??
Secondary School Since	1976	1980	1975	1970's	1972	19??
Community College	XCED[b]	XCED	ABE[c]	XCED	KCC[d]	rural ed
Community Gym	HS[e]	HS	HS	HS	HS	HS

Source: Field notes, March 1989.

[a]Village public safety officer.
[b]Continuing education.
[c]Adult basic education.
[d]Kuskokwim Community College.
[e]High school.

new wealth coming into the town from Native and State organizations, the population climbed to nearly 4,500 during this 7-year period.

Before the oil boom, there were few landowners in Bethel. Housing conditions were poor, and relatively few non-Natives and Natives chose to stay. By the late 1970's, community action and new wealth combined to establish housing subdivisions, parks, public schools, a planning department, and a city government. All levels of commerce, industry, social services, education, management, and planning improved in quality (Porter 1989). People (Native and non-Native, newcomers and long-term residents) had, and continue to take, a special interest in raising the quality of life in their community. Arts, recreation, social services, and educational opportunities flourished, perhaps more than any other community in Alaska on a per capita basis. For example, the Bautista House, a local social service organization which provides care for dependents and is supported by State funds, was created to meet a recognized community need. Voluntary citizen action was the sole source of establishing this facility and its services--a reflection of the level of interest and activity of the time.

Kuskokwim Community College was also formed for adult education, and it became a strong force in the community. (It has since become part of the University of Alaska system and has, as a consequence, lost some of its local character.) Along with improvements in education, a new seawall was built, roads constructed, a new fire station erected, and the city library expanded.

To further improve the quality of life, voters chose to prohibit the sale of alcoholic beverages. An interviewee suggested that as a result school attendance

governments to help them. This realization has resulted in a prevailing attitude favoring rather than opposing private enterprise (Porter 1989; Bivin 1989).

In 1988 Bethel and Bethel area fishermen had their best year commercially, and in 1987 the Salmon Working Group was formed to reduce animosities between Native and non-Native fishermen and to increase their cooperation in harvests and the regulation of fish stocks. This organization, coupled with the new, younger Alaska Department of Fish and Game (ADF&G) officials, has created more trust among all fishermen and the ADF&G than existed before 1987. These officials meet regularly with fishermen--a change from previous practices. As one person said, "It is hard to dislike someone you see one-on-one" (Porter 1989).

Native and non-Native local and regional institutions are also improving their relations with each other, although the Federal and State governments seem to be more defensive about various proposed schemes than private businesses (Porter 1989). The Bethel Village Native Corporation has jurisdiction over the city and the Calista Native Corporation has little presence in the intergovernmental organizations which attempt to improve Bethel's economy. The AVCP plays a part in intracity economic organizations.

Bethel Village Native Corporation: The Bethel Village Native Corporation (BVNC) is a key organization in the economic destiny of the Bethel. It owns the renewable and nonrenewable resources of the Bethel area and is, of course, entitled to income from them. It is a for-profit institution and its goals are to stimulate economic activity in and near Bethel for Native and non-Native peoples.

The organization is sophisticated in its economic perspective and expertise, and it has pursued ten business opportunities for the corporation, some small, some large. These potential investments do not include small businesses because they require intensive labor input from, in most cases, families. These types of investments are inappropriate for the corporation (Bivin 1989). The ten investment opportunities are:

(1) A hotel/convention center/restaurant complex in Bethel with a capacity of 150 occupants. Since Bethel is a center for major meetings for the region on all important matters, and since there is need for such a center, the investment is feasible and would likely be remunerative.

(2) Apartments for VIPs, such as those owned and operated by the Sitnasuak Native Corporation in Nome, and which have been very successful. The BVNC now owns some apartments in Bethel and they are always full.

(3) Fish processing facilities for earning value-added income from a crucial, local, renewable resource. These facilities would include kippering, smoking and tanning capabilities and would provide employment for many people intermittently throughout the year.

(4) A trailer court in Bethel for which there is a strong demand.

(5) Investments in housing of various kinds in Bethel. The present housing stock is in short supply and many units need upgrading or replacement.

(6) There is little tourism in Bethel now. The BVNC is considering development of sightseeing river trips and salmon fishing trips. For example, the Kaniktok River would be especially suitable for these types of

tourist activities (Bivin 1989). Some of the shareholders in the corporation are willing to host visitors (others are not so willing).

(7) Three kinds of Native crafts could be marketed by the BVNC, all based on renewable resources: furs, baskets, and wooden masks.

(8) The manufacturing sector could be developed with emphasis on low-weight and high-return items such as smoked salmon for Christmas gifts and foam plastic for local crafts. These are among the few finished products that would be profitable because of the high cost of transportation.

(9) The BVNC has the capacity to offer professional consulting services to private and public organizations, and, apparently, the market for such services is very promising.

(10) Speculation housing--investing in and earning a reasonable profit from this special kind of housing.

There were three other business ventures being considered by the BVNC at the time of field investigations in 1989, but officials were not at liberty to disclose them.

There are words of caution registered by some officials about rural investments in Alaska. Since the ANCSA business failures of the 1970's and 1980's, investors have been reluctant to put capital in Native corporations. Recent bank failures also have given major investors second thoughts. The State of Alaska could assist with loans by guaranteeing repayment to regional and local for-profit organizations. Investors of the 1990's can be assured that Native for-profit organizations have gone through the trials of

learning the resource and investment businesses and have upgraded their staffs and management expertise.

The 7(i) and 7(j) provisions of ANCSA require the Native regional for-profit corporations to share earnings from subsurface resource extraction with village corporations. These provisions have been the sources of some controversy, and they have been interpreted by courts in ways that remain unclear (Case 1984:23-24). Nevertheless, redistribution of the profits of the 12 instate Native corporations has prompted the BVNC to support oil exploration in the Alaska National Wildlife Refuge (ANWR) in hopes of receiving substantial earnings from oil sales. In 1989, the BVNC received about $500,000 from 7(i) monies, and the development of the Red Dog Mine in the NANA Region could yield another $300,000 to the BVNC annually. There were about $50 million paid out in 7(i) funds in 1989. This system of redistribution has been very helpful to the State's residents by providing an important source of development capital. Officials in BVNC clearly recognize the material and social benefits derived from North Slope oil production and they wish to receive further benefits from an ANWR oil field.

The BVNC is part of a 13-member group of regional and village Native corporations that have entered into a land swap agreement to clear the way for oil exploration in ANWR. If oil is produced in ANWR, the BVNC and its constituents would benefit. (ANWR exploration was rejected by the U. S. Senate in early fall 1991 after most of this report was prepared. It seems unlikely that ANWR will be opened for oil development for many years, if ever). The BVNC wants to see the Native regional

and village corporations manage economic development rather than the State of the Alaska. This is a much more efficient approach and local benefits are much more quickly realized. Congress has stipulated that the State of Alaska would not receive more than 50 percent of royalties from ANWR oil production, in contrast to what the State receives from North Slope oil sales. The 50-percent limitation would allow Native corporations to receive a larger share of oil royalties than they now receive, and the 7(i) provision of ANCSA would provide for a redistribution of royalties on a large scale to the Native regional and the 180 village corporations. This redistribution would achieve some of the efficiencies argued for by BVNC officials.

The BVNC does not have experience with large-scale resource extraction projects and there is little opportunity for it to have such experience. Although the Kuskokwim River Delta does have oil, gas, and mineral wealth, river silts are very deep, making exploration very expensive. The area's development potential as described above seems to indicate limited possibilities for expansion in the foreseeable future.

Commercial Fish and Game Management: The fisheries of the Yukon-Kuskokwim Delta are managed by the ADF&G. The major commercial species in the region is the chum salmon.

In 1988 salmon fishermen received a record income from their harvest valued at $12 million, an average of $15,500 per permit holder. In 1989 harvest income was much less, with a total of only $5.5 million, or $6,800 per permit holder. The differences in the two harvest seasons were attributed to a greater number of permit holders and lower prices. For example, silver salmon dropped 57 percent in 1989 below its 1988 per-pound

price (Hinckes 1989). In 1988 chum salmon sold for $.40 per pound and $.31 per pound in 1989, a decrease of 22.5 percent. Sockeye salmon prices were $1.90 per pound and $1.20 per pound, respectively for the same 2 years, a 37-percent decrease. King salmon dropped from $1.10 per pound to $.75, a 32-percent reduction (Hinckes 1989). Halibut, bottom fishing, and herring seasons also were poor in 1989. Herring harvest income, for example, dropped from $1.82 million in 1988 to $726,000 in 1989. Alaska's fish in 1989 were worth about one-half their 1988 value. This difference is attributed to several trends, circumstances, and events: more hatcheries abroad, the Exxon Valdez oil spill, and a glut in the market.

Chum salmon are, by volume, the major source of commercial fish in the Calista Region. Prices in Bethel paid by a local buyer were about $.40 less per pound than elsewhere in Alaska. This and other prices paid by buyers resulted in a fishermen's strike in June 1989. The strike was resolved when buyers agreed to, and fishermen accepted, increases of $.11 per pound for chum salmon and $.05 per pound for silvers (Hinckes 1989).

In the past 5 years, there has been a change in the way the ADF&G manages game and in the way it communicates with those whose subsistence and commercial activities it must regulate. The ADF&G emphasizes a message of conservation and is much more open to public comment and suggestions than in the past. (Formerly, the ADF&G placed its greatest emphasis on enforcement.) Most of the species regulated by the ADF&G are increasing in population size--wolves, bears, moose, salmon, and bird species. For example, 1,200 moose permits were issued in 1989, 400 above 1988; the

difference is the product of increases in the moose population. This successful increase in moose has come from better ADF&G management brought about by listening to and using suggestions from local harvesters. In addition, limits on harvests were imposed based on the discoveries made in systematic wildlife research. Furthermore, ADF&G has engaged in bilateral and multinational agreements on management of migratory waterfowl and has conducted educational programs in the Calista Region on the need for proper game and fish management.

One of the most notable achievements by game managers in the Calista Region is the North American Waterfowl Management Plan. It began in 1986 when the U.S. and Canada responded to a noticeable decline in white-fronted, emperor, Brant, and cackling geese populations. The plan imposed strict harvest limits on hunters who take these species, and as a result, some of the species are showing an increase. Those who promote and enforce the plan are, however, quick to point out that ecological degradation associated with the bird species is very serious: winter bird habitats in central California are being converted to farmland and urban construction.

In April 1989, managers of the North American Waterfowl Management Plan, held their annual meeting in Bethel. Several Native Alaskans, chiefly Yukon-Kuskokwim Yupik-speaking Eskimos, expressed dissatisfaction with the way the plan was organized and implemented. They felt they were being treated patronizingly and had not been taken seriously in management plans. Despite these difficulties, the Calista Region Native population seems to be gaining political voice in the protection of wild bird populations.

Many of the Native Eskimos and Indians of the delta continue to believe that respect shown animals and fish used for food and income will guarantee their return in relative abundance. This belief is partially reflected in the honesty with which Native peoples generally report their subsistence harvests.

Aniak: Aniak is a small trading and commercial hub on the Kuskokwim River. The population grew very rapidly during the 1980's, posting an annual average population increase of 8 percent. Some of this population increase was the result of persons migrating from more remote Calista villages, but a good deal of it seems to be from the arrival of out-of-state migrants from the lower 48 states who found opportunities created by the State oil boom of the 1970's and early 1980's and its attendant commercial and government activity. The community has the feel and look of a small metropolis. Among recent capital developments, it has running water, jet flight service, new schools, and a new Native corporation building. The Kuskokwim River when frozen provides truck, auto, and snowmachine travel to Bethel and boat travel downstream after snowmelt.

Commercial development has, however, undergone a distinct change in recent years. For some of the local retailers, the period from 1974 to 1979 represents the highest net profit years. These were the years when North Slope oil developments took place and when most of the capital projects were undertaken in the State. Since 1979, the following circumstances have worked against independent retail businesses:

(1) A decline in capital improvement projects. (Aniak received 24 new State-funded housing projects in the summer of 1989, but this brought only short-term economic benefits to small, local businesses.)

(2) A decline in State revenues.

(3) A retreat from the State by machine (transportation) wholesalers, which placed larger shipment costs on the shoulders of retail businesses. This circumstance also reduced the ability of the small businesses to compete with retailers in hub communities.

(4) Business insurance has increased 300 to 400 percent since the late 1970's, a rate well ahead of the rate of inflation. Bringing buildings into compliance with State safety codes has become a fast-growing cost of doing business (Matters 1989).

According to local business persons, the economic boom in Aniak came to an end in 1986; from 1986 to 1989 sales remained about the same.

Some merchants give conflicting reports on the state of the local economy. For example, a local lodge owner said his gross income had declined from about $250,000 in 1987 to $125,000 in 1988 and his business as of March 1989 was below March 1988, but he did not have new competitors in the area which might account for this decline. Rather, it was the reduction in economic activity statewide that seems to be the source of the downturn since most of the lodge's clientele came from Anchorage (Olsen 1989). Another retailer gave a different report. He stated that the local economy seemed to be

doing well, and that tourism, sports fishing and hunting, and construction projects had kept his business thriving (Matters 1989).

Nunapitchuk: During 1989, this village was experiencing a small boom from construction on a sewer and water line and on a boardwalk funded by State capital monies. Officials reported that the village economy was doing well because of the projects and because of relatively large fish catches on the Kuskokwim River (Andrew 1989).

Summer subsistence activities seem to be of shorter duration in the Nunapitchuk region--fewer days at summer camp because of jobs, attraction of the modern comforts of home (television, running water, electricity, indoor protection from harsh weather, and telephones), and other commitments. Volume and diversity of harvests seem to remain relatively high, however, because of the speed and efficiency with which people travel to camp, harvest resources, and return (Meade 1989).

Alakanuk: Several officials and business persons were contacted in Alakanuk for general impressions of economic conditions over the past 2 or 3 years. Their comments offered two impressions of economic trends in the community. Two parties reported steady improvement in business from a continued influx of State and Federal funds for capital improvements and government and educational activities (Jorgensen 1989). In contrast to these observations, a former mayor reported that capital improvement project funds had declined about 15 percent per year since 1986, a condition which, in his opinion, seriously hindered further development of badly needed infrastructure (Phillip 1989.

The Calista Native Corporation: We summarize here some of the recent activities and the economic and social policies of the corporation. The Calista Native Corporation is the regional for-profit corporation. It was established under the provisions of ANCSA of 1971, and it holds ownership over surface and subsurface resources within large tracts in the Calista region.

The major functions of the Calista Native Corporation are to assist village corporations with land management and to offer professional services for this purpose. As one official noted, the corporation's central policies are to develop resources with the least harm to the natural environment, to free the region's population from dependencies on Federal monies to the greatest extent possible, and to create economic opportunities that will keep people in their home communities (Hickok 1990). The corporation also has a policy of preferential hiring of corporation shareholders.

Calista Native Corporation personnel summarized the corporation's performance in its 1991 report The Calista Region: A Gentle People, A Harsh Land as follows:

> Many shareholders feel that the only way the corporation can benefit them directly is to give them jobs or pay them a regular dividend. To no one's surprise, the corporation has been able to employ only a small number of shareholders and, with a few exceptions, has yet to pay regular or substantial dividends. Calista, in fact, has paid almost nothing in dividends to its shareholders. Instead, the corporation has provided numerous services to its shareholders that are not regular functions of a normal business corporation. (Calista Corporation 1991:176)

The report goes on to note that Native corporations were seen as means of promoting the health, education, and social and economic welfare of their shareholders. It seems that most people in Alaska believed that assets conveyed to corporations would result in

the economic development of rural Alaska and that a kind of trickle-down effect would create prosperity for Native villages. However, as the Calista Corporation report of 1991 notes,

> These expectations have placed unrealistic demands on the Calista Corporation. Many of these tasks are appropriate for governments, not corporations. The corporation is limited legally and financially in what it can do to meet the social, cultural, and income needs of our shareholders. Calista has tried everything, but has not even come close to succeeding in meeting shareholder needs. It has made an attempt to operate businesses in the region such as fuel delivery, construction, fish processing and even operated an expediting and purchasing company. All of these ventures failed. (Calista Corporation 1991:176)

The authors of the report observed that the corporation cannot, and may never, serve " . . . the aspirations of over 13,300 shareholders" and that "It is imperative to the corporation's future existence and survival that it prosper financially" (Calista Corporation 1991:176).

In recent years the corporation has undertaken the following developments:

(1) Sand and gravel sales for construction and maintenance projects.

(2) Leasing, in joint ventures, two placer gold mine sites to two companies at Crooked Creek where 20 local people were hired in the summer of 1989.

(3) Occasional, small-scale oil exploration efforts.

Obstacles to development include the relative scarcity of natural resources in the region, the game refuge status of 26 million acres of land which prevents revenue-producing enterprises, and the remote location of many communities. More Calista

villages are located in game refuges than in any other region in Alaska. Despite these limitations, the corporation is in a "guardedly healthy" economic condition.

In its 1991 report, the Calista Native Corporation considered three other aspects of the region's economy (Calista Corporation 1991:169-172). These aspects were onshore and offshore petroleum exploration and development, expanded commercial fisheries activities, and development of a major hardrock mine. Oil and gas exploration has been undertaken in the Bethel Basin in the center of the Calista Region. No development or production had been anticipated in the near future in the Bethel Basin, although further exploration is expected to continue in both the Bethel Basin and on the Yukon Delta.

As for business and job-training, the Calista Corporation report noted that the Federal Government has provided some specific job-creating projects--training programs for bookkeeping and grant applications, among others--and literature on business start-up. To quote the 1991 report,

> . . . the projects haven't stuck; the training is rudimentary and frequent turnover means it has to be repeated. Furthermore, the literature provided requires a level of literacy and a grasp of concepts uncommon in the villages. All that is left are the villagers with training and skills that have only made them a better class of unemployed. (Calista Corporation 1991:168)

Capital improvement projects--important as they are--have had little lasting benefit in village economies because they last only a short time and the wages they paid could not be maintained once the projects ended. Most of the village corporations in the Calista Region are grossly undercapitalized, lacking immediate commercial possibilities. Several villages run local stores and fuel delivery services. These are the only economic

opportunities available to them. Many village corporations "...do nothing more than comply with formal statutory requirements. They pay their taxes, pay for their audits and that's about it. Others have ceased to do this much" (Calista Corporation 1991:180).

Fisheries are discussed in the 1991 Calista Corporation report with emphasis on the two major fisheries: salmon and herring. These two resources are under two ADF&G management districts: the Kuskokwim District and the Lower Yukon District. Both kinds of fish are harvested with gillnets and this will likely remain the method of catching these species for a long time to come. Commercial salmon fisheries will probably not expand in the next 5 years or so (Calista Corporation 1991).
Herring fishing is new to the Calista Region as a commercial venture. Its future for expansion is uncertain. The Calista Corporation recognizes three factors that are unpredictable and beyond the control of local managers in commercial salmon and herring fishing: natural population fluctuations in fish populations, subsistence needs which take priority over commercial harvests, and other commercial fisheries on the high seas and in Alaska. King and chum salmon are the species most affected by these fisheries.

There has been a great deal of mining in the Calista Region. Mercury, platinum, and gold have been extracted profitably from time-to-time. The Calista Corporation engaged in mineral exploration (unspecified) in 1991, and this held some potential mining development.

Association of Village Council Presidents: One of the most important organizations in the Calista Region is the AVCP. It is represented by 56 villages, some

of which extend beyond the boundaries of the Calista Region. The AVCP employs an Overall Economic Development Plan (OEDP) which promotes private and public projects. Each year the OEDP is updated. The summaries and comments provided here refer to the 1988 OEDP.

The AVCP representatives and their constituents have recognized that the usual means of support in the region--fishing, trapping, construction, services, small retail operations--are limited and, in some instances, too dependent on various forms of government funds. Furthermore, many of these economic activities are seasonal, and loans and grants for revenue-producing enterprises are scarce. Most alternatives to Federal grants and other transfer payments are nonprofit in character. The AVCP has realized that primary production and economic multipliers are needed.

Other obstacles to economic enterprise are the absence of a coordinating, centralized municipality or tribal government, the diversity of land ownership, the multiplicity of village development practices and policies, geographical and cultural diversity, and the remoteness of the region. These conditions and circumstances have required a cooperative effort by villages, IRA, traditional, and other governments to establish a plan for development. Added to these impediments are community obstacles: negative attitudes toward resource extraction, tourism, and outdoor recreation enterprises. Lack of education in the workforce also has been a barrier to certain kinds of economic coordination and development. In many instances, there have been more jobs than qualified people to fill them (Hickok 1989).

The AVCP also acknowledges the great need for employment for the next generation of young people. The median age of the population is between 15 and 16, and soon these people will be in the work force. Unless opportunities are provided for this generation, there will a much reduced quality of life for them compared with those now in the work force. Added to these prospects are probable cuts by the State of Alaska in its support of household energy costs through the Power Cost Assistance Program. Moreover, there have already been cuts in Federal funding for local communities by the Housing and Urban Development, the Economic Development Administration, the Department of Labor, the BIA, and the U.S. Army Corps of Engineers.

Because of these unfavorable demographic and economic trends, the AVCP has taken the position that there can no longer be blanket dismissals of certain kinds of proposed developments. Legal challenges to proposed oil and gas exploration were made in an effort to include local considerations into the development plans. These efforts failed, however. Even though, the proposed developments did not materialize because of cost, in the future, local considerations would be part of any development scheme if the AVCP guidelines are followed.

The AVCP guidelines for approaches to development recognize that subsistence pursuits are the most productive uses of the region, and that opportunities for these pursuits and the resources on which they depend must be insured. The guidelines also ensure local participation in economic enterprises. Thirdly, reasonable efforts will be made to provide local workforce training and employment in large projects. Finally, the

guidelines indicated that agreements involving affected communities should be designed to manage the cumulative impacts of development.

The AVCP also plans to set up a legal framework for expanding local economies into other areas. These local economic opportunities might include the development of tourism and outdoor recreation activities such as rafting, birdwatching, and various winter sports. Accordingly, the AVCP has prepared the following approaches to economic development projects in the region:

(1) The project must be based on the use of renewable resources (except for construction and related activities); or, if involving extraction of nonrenewable resources, it shall not significantly or adversely impact the natural environment, subsistence activities, or Yupik culture.

(2) The project must promote consolidation of local projects to improve economic efficiency.

(3) The project must provide for community needs basic to development of viable local economies.

(4) The project must target village corporate entities and other rural enterprise activities for coordination and assistance.

(5) The project must promote export-production where possible.

(6) The project must maximize value-added development (e.g., develop as many stages in production as possible prior to export), particularly where raw resources export currently exists (i.e., fur, fish, timber) (AVCP 1988:7).

III.C Health, Education and Social Services

Compared with other regions in Alaska, the Calista Region has the largest number of villages, the third largest health service area, the largest Alaska Native population, and one of the highest costs for providing health care. The health care costs are partly a result of the large distances between Bethel, where the major health facilities are located, and the many villages in the region. It also is expensive to bring specialists into the region.

The people of the Calista Region experience the highest fatality rates from influenza, pneumonia, diseases of the central nervous system, tuberculosis, accidents, and diseases of infancy of all the sixteen health planning areas in Alaska. The leading causes of death in the Yukon-Kuskokwim Delta are: accidents (rate: 219/100,000), malignant neoplasms (119/100,000), heart disease and hypertension (44/100,000), influenza and pneumonia (28/100,000), homicide (24/100,000), disorders of early infancy (19/100,000), and suicide (16/100,000). Infant mortality has declined, from about 26/1,000 children under age one in 1974 (compared with the National average of 16/1,000), to about 17/1,000 in 1982 (compared with about 14/1,000 nationwide). In 1983, the last reported date for which we have information, the rate rose to nearly 25/1,000 (the National average had dropped to about 14/1,000). The increase in the region seems to have been the result of declining resources and rising birth rates.

Geographical isolation, poor nutrition, high rates of alcohol and tobacco use, the harsh climate, and the use of potentially unsafe machines (snowmachines, boats, all-terrain vehicles) contribute greatly to the high death rates from diseases and accidents.

The residents also suffer high rates of impetigo, middle-ear infections, sexually-transmitted diseases, and respiratory diseases. In addition, one of the five leading causes of hospitalization is complications from pregnancy. This health problem has increased considerably in the past decade.

Accidents account for 56 percent of the deaths of persons under 40 years of age. In 1985, 12 percent of all deaths were suicides and homicides, 32 percent were caused by accidents, and 56 percent were from diseases and other natural causes. Physicians at the Bethel Service Unit report that alcohol consumption is involved in 80 to 90 percent of all injuries in the area and two-thirds of all frostbite cases. Alcohol consumption also is related to children's injuries (parents' inattention because of their use of alcohol), and the frequent cases of fetal alcohol syndrome (Calista Corporation 1989:78-85).

Another difficulty for the people of the region occurred when the Indian Health Service (of the U.S. Public Health Service) eliminated financial assistance for village residents who need to travel to Bethel and Anchorage for health services. Because of such Federal budget cuts, many village residents have had to go without proper medical care.

The Bethel Service Unit of the Public Health Service has a 50-bed hospital where only minor elective and very limited major emergency surgery are available. The region's patients generally go to Anchorage for major surgery and specialized health care. The Bethel hospital also offers outpatient clinic service, dental care, social services, and has several cooperative programs.

Public health nurses provide most of the health care in the villages. These nurses are funded by the State of Alaska, and they travel regularly to the villages in the region. They visit each village two or three times each year. They educate patients on the prevention of communicable diseases, provide a family planning service, infant and child care, school health services, services for handicapped children, child development services, eye care, followup care on chronic diseases, mental health care (referrals and followup), health surveillance, and community health and aide training. Each village has a small clinic and at least one trained health aide provided through the YKHC.

There are no private physicians in the Calista Region. The Bethel Service Unit has 14 full-time and 2 part-time physicians. Established National health standards call for 1 physician for every 800 persons. The Calista Region health district would need 7 more physicians to meet the minimum standard. The village health aides are only able to handle minor illnesses and emergencies. Clinics are small and aides are under considerable stress because of the limited care they can give. The turnover rate for village health aides is high.

The YKHC was established in 1969; it became a Public Law 638 contractor in 1978. (Public Law 638 is the 1975 Federal Indian Self-Determination Act which requires agencies serving Native Americans to emphasis programs that give Native peoples every opportunity to run their own affairs and manage Federal allocations.) It is nonprofit and receives most of its operating monies from the Indian Health Service (Public Health Service, Alaska Area Native Health Service) and the State of Alaska. It is run by a Board of Directors consisting of persons selected from administrative units composed of

several villages each. Most of the board members are elected by local IRA councils. There are 22 members on the full board, although 7 of these members comprise the Executive Board, and they do most of day-to-day work. There are 2 full board meetings each year, usually in April and October. The YKHC programs include primary health care, preventive and health promotion activities, and specialized services. There were 210 employees in March 1989. During the same period, there were also 120 community health aides and practitioners who worked in 48 village-operated and two Indian Health Service operated clinics (Indian Health Service 1987).

The YKHC also has programs in dental services, radio repair and maintenance for village clinics, community health aides training, alcohol abuse prevention, mental health, community care provider training, emergency health services, eye care, maternal child health and family planning, otitis media and streptococcal projects, and an arthritis rehabilitation facility. The corporation was conducting a health survey of about 20 villages in March 1989. The director and his staff were especially concerned about finding a vaccine that would best combat meningitis.

In March 1989, YKHC Board of Directors recommended that the YKHC take over responsibility for the Indian Health Service (IHS) hospital. If this change were approved by the IHS, many planning documents would have to be prepared and the YKHC would need four technical assistants to work for the service unit director, the pharmacy, the x-ray unit, and in housekeeping. The hospital budget would have to be increased about 10 percent to cover new administrative costs.

In the spring of 1989, the director of the YKHC recommended that two subregional centers be established, one in the Lower Yukon/Upper Kuskokwim region and the other in the Nelson Island area at Hooper Bay, Scammon Bay, or Chevak. This proposal, if implemented, would eliminate nurses' travel time and expenses. The proposal called for one subregional center in Aniak or Saint Mary's where jet services are available. Moreover, new personnel would be added to each major program. New personnel would include a physician's assistant, a registered nurse, mental health and alcohol prevention workers, dentistry, pharmacy, and x-ray technicians, and a roving physician who would conduct regularly scheduled trips to villages. This proposal was being considered by the board in 1989. There were efforts to establish a subregional health service district in the 1960's, but these efforts failed because of poor planning. An official of the corporation said he had read about environmental impact statements prepared for possible oil and gas developments in the Navarin Basin and North Aleutian Shelf. He commented on possible adverse effects from these developments on Native subsistence activities and possible increases in suicides and alcoholism.

There was a great difference in health services from one village to another, especially in mental health care. To bring all villages to a common level of service, the director of the YKHC submitted a grant application to a private foundation for funding paraprofessionals at the local level. One of the corporation's health officials said that health administrators and health practitioners should listen more carefully to elders and that elders should play a key role in services. Up until this time, elders had not had a major role in health planning and service.

To meet budgetary constraints, the State legislature was considering reducing the corporation's funds by 5 to 10 percent. According to one of the corporation's health officials, this was a violation of the State Constitution's Article 7, Sections 4 and 5, which mandate responsibility for public services and welfare to all citizens. State funds were essential; for every $9 to $10 provided by the IHS, the State gives $2 or more.

One of the main challenges facing the corporation was to insure that Native Americans could run the organization well. Since most of the funds for the corporation come from the Federal Government, the corporation's hiring practices had to emphasize Native preference. This hiring practice has enabled the local people to, in the words of one corporation health official, ". . . control our own destiny." Previously, health services had been managed by outsiders.

The official went on to comment that mental health care in the Calista Region was very difficult to provide. The region is the size of the State of Oregon and has only about 18,000 people, 95 percent of whom were Yupik Eskimos. Communities are widely scattered, as has already been noted above. Mental health care must be given cross culturally, which obviously has added to the obstacles of giving effective care. According to one KI, historically the Yupik Eskimos of the region have been told repeatedly by administrators and politicians that they should not do things for themselves and that governments and their agencies, churches, and other outside ethnic or racial groups should provide educational and other services for them. They were also told that their language and customs were morally, culturally, and economically reprehensible. (In

1989, Natives received apologies from Catholic and Episcopalian bishops for the demeaning attitude of their churches toward Native peoples.)

Patronizing attitudes of some officials have caused a sense of unworthiness and shame among many Native peoples. Recently, however, some measure of sovereignty was granted them by Congress through ANCSA. This has contributed to an increasing desire for local control over service agencies. In some instances, agencies have willingly gone along with this because funds were in short supply, and they have had to depend on local resources more than in the 1960's and 1970's. Family and youth services officials in the AVCP stated that the most serious problem in the region was cultural adoption of children. This refers to a common practice among Yupik Eskimos of grandparents adopting grandchildren to raise as their own. In many of these cases, State officials seek the parents to recover public assistance payments designated for child support. Some parents had reimbursement liens of up to $40,000 filed against them as a result of the State bureaucracy's apparent unwillingness to recognize the Yupik adoption custom. (An interviewee who expressed frustration over this situation described how parents pass on support payments to the grandparents, if that is where the child lives.) (Angiak 1989; Naneng 1989).

The problem came down to the distressing fact that families felt they were not allowed to decide where their children could live. This situation was extremely stressful for parents of children adopted by grandparents. Part of the problem rested on the reckoning of financial accountability. The State based its welfare claims on the gross household income of the parents. For households engaged in commercial fishing, this

was especially difficult since fishermen were not allowed to factor in their business costs and tax assessments.

Another major problem in family and youth services was the lack of facilities and staff for local health treatment and care. The Bethel facility had only 14 beds and no electricity. Because of this, young people were often sent to Anchorage or Fairbanks where they were thrust into an alien social setting and from which they returned with newly acquired expectations that were opposed to those they were raised with. This condition brought into sharp focus the differences between Bethel and urban centers in Alaska, and it highlighted the need, according to those interviewed, for a family treatment center in Bethel.

Another difficulty experienced by health planners in providing family and youth services lay in the State system of hiring. Local persons seeking positions in these services found the State system of hiring too burdened with paperwork and, in their minds, frivolous requirements. These were serious obstacles to hiring because they discouraged local people from taking a personal interest in the services. Furthermore, many employees worked for about 3 years and then moved out of Bethel and up the agency ladder. This process further limited employee interest in services for local clientele. State planners in family and youth services placed too much emphasis on cost and benefit calculations, according to some local officials. This approach benefits urban centers but causes serious disadvantages in rural areas. Perhaps even more important was the need for Bethel schools to discuss the causes of problems for young people.

Some officials believed that Native American youth were not given enough attention in the schools.

Furthermore, the State did not give proper consideration to other Native practices besides adoption and problems experienced by young people. For example, the State ruled recently that court would be held each Friday, a day crucial in the summer subsistence round. Many Native staff persons refused to follow this arbitrary ruling and the majority of non-Native employees supported the protest.

Some family and youth services staff members recognized the need for bilingual Native employees, although there have been occasions where non-Native job candidates were thought by some supervisors to be better suited to new positions than bilingual persons. This was another example of decisions causing tension between Native and non-Native persons in the State service system. Further, burnout was a common problem for many staff members because of the large burden of providing services and the large amount of paperwork required. Rural areas did not have staff members at intermediate levels who normally handle much of this paperwork; thus, rural employees labored under a double workload.

There were several essential changes that local staff believed should be made and there were some signs that their message was getting through to supervisors and policy makers in Anchorage. The needed changes were:

(1) Make allowances for women wishing to work half-time.

(2) Allow job sharing among family members.

(3) Agencies should take into account the needs of local people to fish commercially and to engage in subsistence pursuits, Native ceremonies, and pow-wows.

(4) Agencies should be willing to recognize the qualifications and experiences of Native people.

Schools in the region's villages have become the focal point of community attention, particularly since the Molly Hootch Case in 1976 which required the State of Alaska to build high schools in rural communities. By 1984, the State had spent $143 million building high schools in villages throughout Alaska. Before these new schools were constructed, students attended only kindergarten through the 8th grade in their own villages at schools operated by the BIA. For education beyond the 8th grade, students had to attend boarding schools in the lower 48 or in the State at a considerable distance from their home villages. The court decision did not produce the favorable results hoped for by its proponents. Schools were often inefficient, and they isolated students from experiences needed to cope in the modern world. Native students who attended urban schools in Alaska achieved higher SAT scores than those who attended village schools (Alaska Federation of Natives 1989).

Students frequently did not get the kind of education they needed to acquire marketable skills, and schools were often understaffed and the teachers' expectations for students were low. Dropout rates were high up to the 8th grade (28%), and although 88 percent of the high school students obtained a high school diploma, their education was substandard by State standards. The school districts conducted research to discover

successful combinations of techniques and conditions that would result in well-above-average success. They found that schools with a clear focus on a specific program, and with which teachers agreed, seemed to had the most positive responses from students and their families. This approach to school programs was being considered by the districts in 1990.

In 1989, the Calista Regional Corporation conducted a survey of the region's villages and found the most pressing needs of the region to be in health, educational, and social facilities and services. The results of the survey and the recommendations that followed seemed to best sum up the health, education, and social services section of this report. One of the most important recommendations and one mentioned in other sections of this regional summary, was a need for development of local economies. The survey also recognized that housing must be increased in number of units and that existing housing needed major improvements. The sewage, water, and solid waste systems were deemed to be in poor condition in most villages and were in need of considerable upgrading. Airport services and facilities were in poor condition, and safety and reliability were below standards. Electrical power supplies and telephone systems also required more capital and manpower to achieve greater dependability and access. Flood and erosion control needed considerable improvement, as did the health care facilities (Calista Corporation 1989:117).

III.D. The Main Trends of Sociopolitical Change

Over the past 2 decades, the communities of the Delta region have experienced steady growth in population, supported in large measure by State funds. During this

period, employment income and cash transfers of other kinds have been used, in part, to provide support for local subsistence harvest activity. The major issues that seemed to be of greatest concern to the Native residents of the Yukon-Kuskokwim region were maintenance of the land and resources, control over local affairs, improved economic conditions, and maintenance of cultural and linguistic traditions.

While these issues are not new, the degree to which they have focused public debate has been unprecedented. The major issues mentioned below were expressed in testimony at public hearings for proposed oil lease sales and the Berger Commission inquiry, as well as in the pervading political rhetoric of the Yupik Nation. The common message throughout these testimonies was a deep concern for and commitment to the land and its natural resources. Speakers expressed a desire, often frustrated, to gain full control of their land and their lives.

Domestic problems were reflected in the region's high rates of alcoholism, child abuse, sexual assault, suicide, violent crime, and inadequate mental health care. According to Oswalt (1986:10-30), additional indicators of the stressful conditions under which Native Alaskans live were equally alarming. In 1980 the arrest rate for Natives was more than 3 times that of non-Natives. The murder rate for Natives was 12 times higher than that for non-Natives, and rape statistics were 7 times higher for Natives than for non-Natives. Also, although Natives accounted for only 16 percent of the Alaskan population in 1980, they accounted for 30 percent of admissions to the Alaska Psychiatric Institute.

Key informants repeatedly related these high rates to the conditions under which the problems occurred: while each individual was responsible for his own actions, he could not be expected to act appropriately if he was not in control of his land, language, and life.

IV. HOUSEHOLD ORGANIZATION AND KINSHIP

IV.A. Kinship Organization

Along with the amalgamation of numerous extended family groups into modern village conglomerates, the biggest single change in regional social organization over the last half century has been the transformation from extended family households to nuclear family households as the dominant post-nuptial residence pattern. For example, in Toksook Bay in 1979, the residence pattern of husband, wife, and unmarried children accounted for 64 percent of the households, representing a dramatic change from the early 20th century pattern of separate male/female residence (Fienup-Riordan 1983). Large-scale housing projects undertaken since the Johnson Administration's "War on Poverty" have made houses available on an unprecedented scale, and nuclear families have resided in those houses. Nevertheless, elaborate networks of interhousehold sharing, adoption, hunting partnerships, and work groups continue to provide numerous opportunities to maintain extended family relationship ties. This situation was especially true in the realm of subsistence harvesting and processing activities and was a valued feature of such activity. Also, in the more traditional coastal and tundra villages, Yupik kinship terminology and traditional naming patterns continue to be employed. Fienup-Riordan (1983:141-174) described in detail these persistent traditional kinship

phenomena among the Nelson Island Eskimo who reside near the mouth of the Kuskokwim River.

The Yupik way of thinking about their social relations is complicated and vital to them. One view of contemporary Eskimo social structure is that it is now and has always been a very loose, "flexible," and unspecific set of guidelines for how relatives should act toward each other, and that under present-day stress, kinship ties and networks are weakening (e.g., Guemple 1972a and b; see Fienup-Riordan 1983:142). On the other hand, although there have been many cultural changes in the past 100 years, there has also been a significant retention, especially in the coastal communities, of kinship terms, many of the rules surrounding childbearing and adult behavioral norms, and the celebration of a child's first fruits (first success in hunting). For a significant percentage of the population, kinship ties still appear strong and binding.

IV.B. Household Structures and Economic Functions

Members of households throughout the region are integrated into the National economy as clerks, welfare recipients, commercial fishermen, and bureaucrats, but they also maintain themselves, in large part, through traditional harvesting and consumption of local, naturally occurring foods. Also, some occupation specialization has occurred in the regional and subregional centers where public sector employment is more readily available. The overall pattern in the outlying villages is predominantly the combination of wage employment and the harvest of local resources for both commercial and subsistence use.

Harvesting is labor intensive, yet capital is required to purchase equipment and fuel for vehicles to ensure harvests. As a result, considerable interhousehold, and even intervillage, exchange of goods and services (usually exclusive of cash) occurs to enhance harvests among networks of kinspersons and friends. These extended sharing networks seem to be most pronounced in the coastal communities of the region (see Fienup-Riordan 1983:362-372 and 1986:180-183 for schematic and tabular examples of these networks and their functions).

IV.C. Socialization

Young Yupik boys and girls have received decidedly mixed messages as they grow to maturity. Traditional Yupik values and behavioral norms were taught in the home. In the coastal and tundra village communities, the Central Alaskan Yupik language dominated usage as well. When these young people entered school, a number of cross-cultural differences attested to the distinctive character of their early training, including a definite speech style, taboo subjects, and culturally prescribed indirection in speech (where one evaded direct comment) and in open displays of feelings.

The Yupik socialization process stressed cooperation and group adaptation--values clearly at odds with Anglo-European attitudes and aspirations. Yupik students often became intimidated and frustrated by these differences. Students would graduate from high school, but fewer than one in ten graduates went on to college. To counteract this phenomenon, public schools strengthened bilingual and bicultural programs. Increased local control was being sought by area residents in order to successfully bridge the gap between students' home and school experiences. There was also a slow but steady

increase in the number of Yupik men and women working as certified teachers in the schools. In the eyes of many village residents, this kind of direct participation by local residents in formal education seems to be as important as political sovereignty and economic opportunity in the region.

V. IDEOLOGY

V.A. Religion

Four major denominations claimed substantial congregations in the Yukon-Kuskokwim Delta region. These included the Russian Orthodox, Moravian, Catholic, and Covenant churches. Moravian and Russian Orthodox missions were well established along the Kuskokwim River by the turn of the century. Their memberships divided some communities, and in Nunapitchuk with 25 percent of the population Russian Orthodox and 75 percent Moravian, these divisions continue to this day. The Catholic faith established itself on the coast north of Kipnuk, up to and including the mouth of the Yukon River by the 1920's and 1930's. Although most coastal communities were exclusively Catholic, Scammon Bay has maintained a small Covenant congregation from the 1930's, and within the last dozen years, an Assembly of God Church has won some converts in Alakanuk. In Aniak, Catholic and Russian Orthodox Churches both were present. Although the Assembly of God Church has been active since 1945, it has had fairly modest success in gaining members from the Yupik community.

Differences between communities dominated by Catholics and communities dominated by Moravians have persisted for as long as 70 years. Although the Moravian missionaries were stricter than the Catholics in their suppression of traditional religious

activity, their commitment to a Native-run church, with liturgy translated and communicated in the Native language, allowed the tundra and riverine Eskimos (living in the vicinity of Nunapitchuk and Bethel, respectively) to convert without many of the negative overtones religious enculturation entailed in other parts of the state (Fienup-Riordan 1983:1-55).

In the coastal area missionized by the Catholics, however, the Jesuit priests tended to be more dogmatic and paternalistic in their dealings with the Native population (Fienup-Riordan 1983:1-55). Yet, in allowing them to retain their traditional ritual distributions and dances, ironically they encouraged a concrete link to the traditional sociocultural complex they sought to undercut. For these reasons, the communities dominated by Catholicism possess valuable mechanisms for cultural identity and self-expression (Fienup-Riordan 1982).

Until very recently, the interdenominational character of the region had produced a significant amount of internecine strife. The trend, however, has been for these ecclesiastical differences, although continuing to exist, to decrease as a focus for intraregional conflict. In the past, zealous Moravian and Catholic lay helpers could barely tolerate the presence of competing denominations, today these churches are making significant efforts to bury their differences. These two have been tackling the major common problems that face their congregations, particularly alcoholism and alcohol-related violence. This fence mending in Bethel, Nunapitchuk, Aniak, Scammon Bay, and Alakanuk has been especially visible within the past 8 years. Bethel has served as the site of a number of joint church conferences.

V.B. Worldview and Values

The ways in which Natives throughout the region act, and the fashion in which they view the world are still very traditional. Perhaps this is due to the region's physical isolation and to its relatively recent contact with traders, missionaries, and educators. The traditional Yupik value hierarchy, which places the natural and human world in a highly structured reciprocal relationship, has shaped actions and ideals in the region. Residents of the area feel that they are not merely surviving on the resources of their environment but are living in a highly structured relationship to them.

The Central Yupik language has continued to be the first and primary language for the majority of residents living in the coastal and tundra villages (including Toksook Bay, Scammon Bay, and Nunapitchuk). Although this has not been the case in either the Yukon Delta villages (including Alakanuk) or the regional centers of Bethel and Aniak, most Native adult residents in these communities have been able to understand and speak their language. Moreover, they have become increasingly anxious that their children learn Yupik (see Sec. IV.C. Socialization).

Traditional redistributive mechanisms connect networks of family groups and friends. Also, particularly in subsistence harvesting activities, the traditional structure of production and the division of labor based on age, sex, and degree of relationship have remained. Most importantly, the Natives of the region have retained a strong commitment to traditional subsistence activities. The cash economy has been viewed by most of the Natives living in the coastal communities, as well as a significant number living inland and upriver, as supportive of and subordinate to traditional hunting and

gathering activities. Success in the commercial sector (i.e., cash gained from commercial fishing or part-time employment) has been used to facilitate, not obviate, subsistence pursuits such as seal hunting, herring fishing, bird hunting, and fall moose hunting. The products of harvesting activities continue to be shared along traditional lines. Families are defined and distinguished by the quantity and quality of the gifts they are able to receive and repay.

V.C. Ethnicity and Tribalism

With the passage of ANCSA and more recently with the debates over the disposition of shares (addressed in the 1988 ANCSA amendments), a political and cultural movement has been in progress in much of the Calista Region. This movement can be summarized as a desire to return to the "old ways." The "old ways" refer to the era of the 1920's when many positive technological improvements were introduced to the Delta. These improvements preceded the Yupik Eskimos' subordination to Federal and State government control and the dependency that it created. This movement is embodied in the Yupik Nation (which is a sovereignty movement); the anti-oil development and prosubsistence rhetoric at public hearings over oil lease sales; the revival of intra- and intervillage winter dance festivals; the hosting of local and regional elders' conferences (where positive traditional values such as respect and generosity are emphasized); and the increased awareness of and concern for the preservation and use of the Yupik language and oral traditions.

Moreover, the formation of the Yupik Nation has been and continues to be an attempt to ignore, politically at least, ANCSA. Yupik Nation communities encourage

attempts to retain control of the land, revitalize Native village government, and return to the goals of self-government in the IRA of 1936 as it applied to Alaska. The Yupik Nation movement has its strongest supporters in the Yukon-Kuskokwim leaders from the AVCP (Oswalt 1990:197).

As yet, the efforts noted above have not coalesced into a concerted and unified regional movement. However, the numerous times participants in this study brought up issues of Native cultural identity and political control clearly indicate an increased awareness of and value placed on being a Yupik Eskimo in the modern world.

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The Aleutian-Pribilof Islands Region

Patricia Petrivelli and Taylor Brelsford
with Steven L. McNabb

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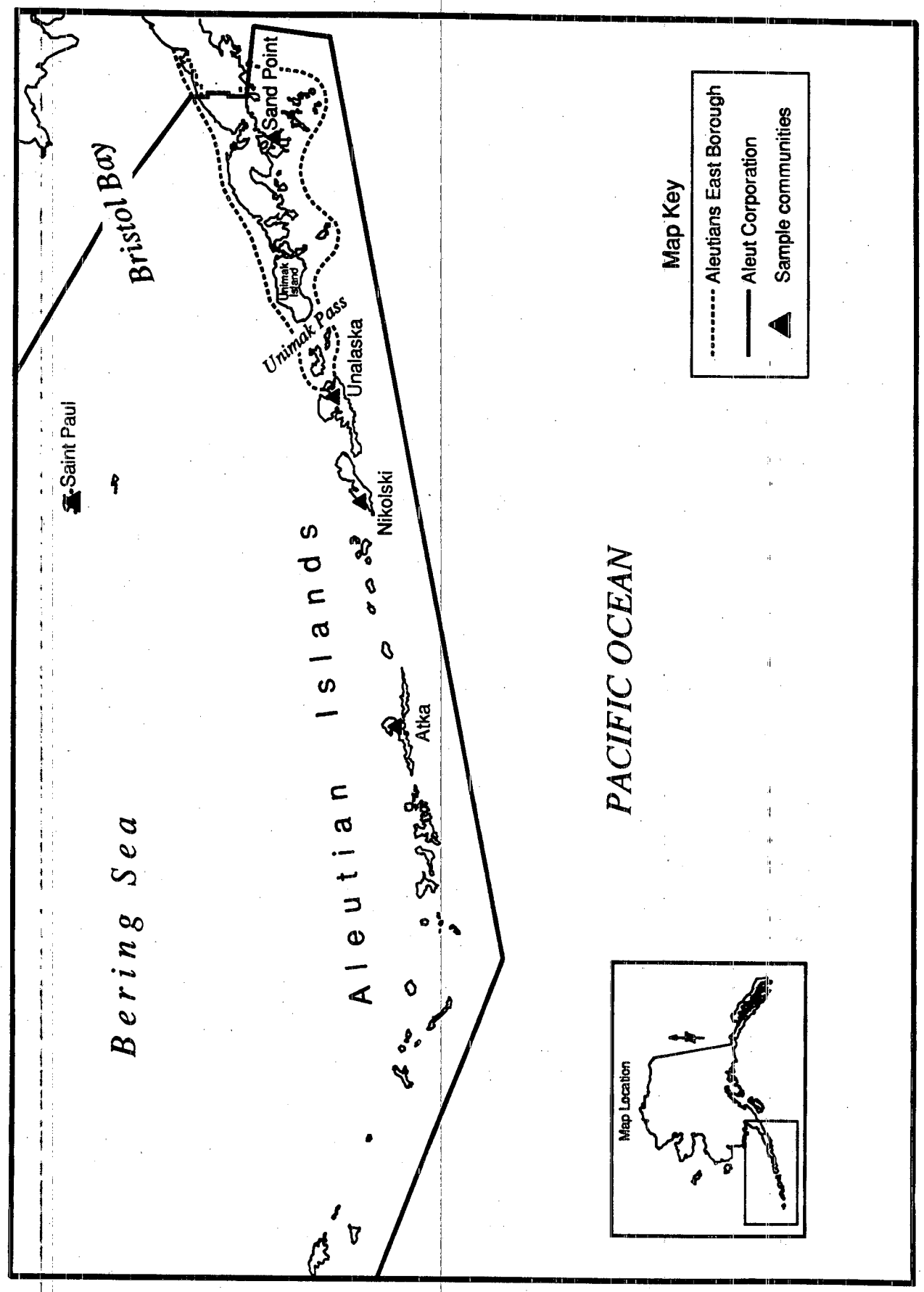

ALEUTIAN-PRIBILOF ISLANDS REGION

SCHEDULE A COMMUNITIES

THE ALEUTIAN-PRIBILOF ISLANDS REGION

PREFACE

This Key Informant (KI) Summary was first drafted during 1987, subsequent to the first Schedule A field season. It has been edited and revised during the years 1988, 1989, 1990 and 1991 in order to incorporate new data and discussions of changes over this interval. Field research was conducted by senior researchers in 1987 and 1989 at Schedule A sites (Aleutian-Pribilof Islands, North Slope, Calista, and NANA), and in 1988 and 1990 at Schedule B sites (Bristol Bay, Bering Straits, and Kodiak).

The seven study regions of the Social Indicators study were divided into two groups, based on concerns related to research design and efficiency of project administration. These groups are termed schedules and, as the term suggests, these groups represent not only sample portions but sampling agendas. Schedule A, of which this region is one part, also includes the North Slope, NANA, and Calista regions. Subsequent to the Exxon Valdez oil spill in 1989, the scope of the Social Indicators study was expanded, and a new sample of Cook Inlet, Prince William Sound, and Kodiak area villages was developed. This group then comprised Schedule C. These terms and their meanings in the overall research design are introduced more fully in the KI Summary Introduction and are explained fully in another project document entitled Social Indicators II: Research Methodology: Design, Sampling, Reliability, and Validity.

All of the information reported here that is based on discussions with institutional officials and residents was collected during the two field excursions in 1987 and 1989, but secondary data from other documents and archives may correspond to other years. Since

there is always a lag between data collection and eventual publication, all technical documents are dated at the time they are produced. Aside from some minor exceptions, the collection of new information ceased at the end of 1990, so this document can be considered accurate through 1990.

The Aleutian-Pribilof Islands region is poorly documented in easily accessible historical and ethnological literature, principally because so much of it is written in Russian and little is translated. Some of the best Russian material enters the English literature only through citations in the work of scholars fluent in Russian, and much of this indirect reference is evident in Lydia Black's research (see Black 1980a for a complete translation of Netsvetov's journals, and Black 1987 for a good example of research that incorporates numerous early Russian citations). Among the other general and classic ethnological references are Jones (1976, 1980), Lantis (1970), and Laughlin (1980; Laughlin et al. 1979 is virtually identical). Lantis (1984) is an excellent general purpose overview.

Lantis is particularly skilled in surveying and integrating wide-ranging data, and her reconstructions based on secondary and archival data are valuable. Jones' perspective can be traced to her social work and counseling orientations, in that her material emphasizes social adjustment under conditions of stress related to regional and national political-economic trends. Her work is incisive and incorporates some elements of social commentary in a context of very good social research. Laughlin's work emerges from a biological and evolutionary perspective which places emphasis on material culture, adaptation, and human ecology. Black's research focuses generally on social

structure and kinship, cultural contact during the Russian period, and art and expressive culture. Her incorporation of Russian materials, as noted above, is an important contribution.

Other useful citations include Berreman (1964) on social organization at Nikolski, and Jochelson's (1933) early ethnographic research. Government-sponsored research that warrants attention includes Stephen R. Braund and Associates (1986), Earl I. Combs (1982), Darbyshire and Associates (1986), Impact Assessment, Inc. (1987, 1988), and Veltre and Veltre (1981, 1982, 1983). Palinkas, Harris and Petterson (1985) summarizes government-sponsored research that appears in other technical reports with limited distribution. In terms of overall ethnological value, the first of the two broad categories of materials can be roughly rated as most useful, but readers with particular interests in recent socio-economic and policy issues might turn to the second group first.

I. HISTORICAL CONTEXT

The communities of the Aleutian-Pribilof Islands region derive much of their modern character from the legacy of their past. Area history is summarized and divided into the Russian Period (1741-1867), the Early American Period (1867-1940), the Relocation and Post-War period (1941-1960) and the Land Claims Period (1960-present). The Land Claims period is examined in greater detail throughout the subsequent sections, but key analytic features of each period will be highlighted as well. Throughout the report, "western Aleutians" refers to that area most distant from mainland Alaska and "eastern Aleutians" refers to that area closest to the mainland (or on the Alaskan

Peninsula). Many of the western Aleutian islands are actually located in the east longitude sector of the globe.

I.A. The Russian Period (1741-1867)

The aboriginal Aleuts are thought to have numbered some 16,000 inhabitants, distributed in hundreds of villages on the Aleutian Islands and Alaska Peninsula from Attu to modern Port Moller (see Laughlin, Jorgensen, and Frohlich 1979:92-93). The extraordinarily rich marine environment of the area facilitated, over a 9,000 year period, the Aleut development of superb marine navigation and hunting skills. On this technological and subsistence base, they developed a kinship and social class system, replete with slavery and a complex ritual life, particularly well documented in the case of mortuary practices (see Lantis 1970; Townsend 1983).

Although the Aleuts shared similar adaptations to the Bering Sea and North Pacific environments, considerable linguistic and culture diversity occurred among Aleut populations. Laughlin, Jorgensen, and Frohlich (1979) attribute the diversity to the slow development and spread of the Aleuts across the many Aleutian Islands--a process that took about 3,000 years and began 6,000 years ago. The spread was a function of the growth rate of the population. Regional groups were recognized, including the Sasixnam from the Attu area (long. 172° E. near Kamchatka Peninsula), and the Niigun from the Atka area (long. 174° W.). Attuan and Atkan are separate dialects of the Western Aleut language spoken by Sasixnam and Niigun, respectively (see Lantis 1984:161). Groups in the eastern Aleutians from the Islands of the Four Mountains through the Alaskan Peninsula spoke dialects of the Eastern Aleut language (Woodbury 1984:50). One such

dialect was the Qawalangin from the Unalaska/Unimak area (long. 167° W.) (Black 1980b:83). Western and Eastern Aleut languages belong to the Eskimo-Aleut language family.

It took time and isolation to generate dialectal and language variation among the Aleuts who occupied the islands from Attu to the Alaska Peninsula. Nevertheless, the seafaring skills that they developed in their island habitats eventually made trade and marriage relations among them both possible and common, as well as protracted slaving and raiding.

If environment and place had served the Aleuts well in the aboriginal period by providing such rich sustenance, their location at the crossroads of the North Pacific made them the first of the Alaska Native groups to enter sustained contact with Europeans. European contacts with the Aleuts were particularly disruptive to Aleut populations and societies. Lantis (1970:179) concludes that "at least 80 percent of the Aleut population was lost in the first two generations of Russian-Aleut contact."

The Russians violently subjugated the Aleut people and exploited their labor in the fur trade. This began shortly after discovery of the Aleutian Chain by Vitus Bering on his expedition in 1741. There were occasions of rebellion by the Aleuts to their subjugation and exploitation, as in the important Uprising of the Islands of Four Mountains in 1763-1764 (Black 1980b:94), but these were inevitably followed by violent retaliations by the Russians. To ensure cooperation, the Russians took Aleut hostages, impressed the best hunters into hunting parties, and sometimes relocated entire communities to fur hunting grounds. The Russians gave scant attention to the

availability of subsistence resources for the relocated communities and, thus, a consequence of relocation to some areas was hunger, increased susceptibility to disease, and death.

There were cordial relations between some traders and the Aleuts, and, indeed, many Russians settled in the region, giving rise to what was then termed the Creole class. Moreover, the structure of the Russian Fur trade shifted over time, from the initial small independent traders, through a period of absentee financier pressure that intensified exploitation between 1760-1780, to the establishment of a monopoly charter for the Russian American Company in 1799. Under the monopoly, the outright violence of the earlier periods diminished, but labor impressments and forced relocations continued.

The Russians introduced diseases which caused large-scale depopulation among the Aleuts. An epidemic of chest contagion was reported to have taken 350 lives in the Unalaska district in 1806-1807 (Black 1980b:100). Smallpox decimated some Aleut populations in 1838 (This smallpox epidemic had statewide impacts; note that the same epidemic killed as much as two-thirds of many localized populations in the Yukon-Kuskokwim area.). Fortunately, Russian Orthodox missionaries had introduced smallpox vaccinations in Russian America in 1822 (Black 1980b:103), reducing the extent of the 1838 epidemic.

Because forced relocation, labor exploitation, and introduced diseases had deleterious consequences for the Aleut populations, these witting and unwitting Russian acts were accompanied by profound cultural influences: the integration of Aleuts into

the European mercantile economy as exploited producers and the introduction of the Russian Orthodox religion. These cultural phenomena have had far ranging affects on Aleut culture. The first Russian Orthodox missionaries arrived at Kodiak Island in 1794. Their influence soon spread to the Aleutians. After 1799 the missionaries were associated with the Russian American Company, which was bound by its charter to pay for their upkeep. In this capacity, the missionaries served as vigilant watchdogs of company abuses. The monk Gideon was sent in 1804 to investigate reported mistreatment of the Aleuts, and upon returning two years later he confirmed these reports. New instructions promulgated by the crown directed the company to cease abusing the Natives when its charter came up for renewal.

From the first contacts, the Russian Orthodox missionaries emphasized use of the Aleut languages. Many missionaries became accomplished speakers, but none is remembered so well as Fr. Iaon (Ivan) Veniaminov, who, upon arriving in Unalaska in 1824, learned Eastern Aleut and created a writing system for the language (Smith 1980:5). Written Aleut flourished in the church context. In no small measure, this was due to the emphasis on the training of lay readers in the church and to the establishment of Russian Orthodox schools which stressed literacy in Russian and Aleut, as well as mathematics and science. The first of these schools was opened on the Koniag Eskimo island of Kodiak in 1802, and Veniaminov started another in Unalaska in 1824. Smith (1980:12) suggests that a tolerant attitude toward indigenous religious beliefs was also an important factor in the widespread acceptance of the Orthodox faith.

The Russian Period brought massive population decline and resettlement, displacement of the self-sufficient modes of subsistence, and disruption of Aleut social organization and religious ideology. The Orthodox legacy from this period, however, is now viewed quite positively, both for the protective role it played then, and for the central part it plays in Aleut identity today.

I.B. The Early American Period (1867-1940)

The sale of Russian America to the United States precipitated many more changes to Aleut culture. Generally, the Aleut people began to recover from the depredations of the previous century, and American missions and schools, steeped in the Victorian perspectives of the day, were established. Other influences affected certain parts of the region. Of importance was the rise of direct Federal management of the fur seal harvest in the Pribilof Islands, the rise of Unalaska as a transshipment and supply center, the fox fur boom in the western Aleutian area, and the establishment of the commercial fisheries in the eastern Aleutian area.

The Pribilof Island fur seal harvest was seen as the surest revenue-producing enterprise in the newly acquired American territory of Alaska. From the time of the Alaskan purchase until a resource crisis in 1910, the fur seal harvest was pursued by private companies, heirs to the Russian American Company monopoly. Over-harvesting at the hauling-out grounds and at sea precipitated a collapse of the fur seal population by 1910. Under the Fur Seal Act of 1910, pelagic sealing by American nationals was outlawed, and the American Government undertook direct management of the Pribilof fur seal harvest. The following year, the North Pacific Fur Seal Convention was

negotiated with the three remaining sealing nations, Russia, Japan, and Great Britain (for Canada). Under the terms of the Convention, all parties gave up pelagic sealing in return for guaranteed shares of the land-based fur seal harvest of the sealing nations. By the Convention, Canada and Japan received 15-percent shares of the Pribilof Island harvest.

Under direct Federal management, what emerged in the Pribilofs was eventually a system of virtual involuntary servitude for the Aleuts (Jones 1980), which paralleled the historic pattern of earlier Russian domination. The Aleuts employed for the fur harvest were seen as "wards" of the Government (Orbach and Holmes 1986:77), with the resident Government agent in charge of the harvest intruding into virtually all aspects of the lives of the Pribilof Aleuts. Compensation was given in-kind, not in wages, at rates set by the Government. Entry to and exit from the Islands were controlled, with the power to refuse reentry to the Islands employed as a major element of control. Homes were inspected for cleanliness and to suppress manufacture and consumption of *kvass*, a homebrew. Also, incipient protest was strictly controlled. The agent exercised arbitrary authority; Congressional oversight was distant, and the Aleuts had no independent avenues of redress. These measures were ostensibly undertaken so as to manage an effective workforce for the annual fur seal harvest, but this extraordinary level of control also made the operation quite lucrative for the Government. From 1870 to 1946, remuneration to the Aleut laborers amounted to $2.1 million while profits to the private companies and the Government amounted to $46 million (Orbach and Holmes 1986:95).

Unalaska emerged early in the American Period as a key center of transshipment and supply for the American whaling fleet (Lantis 1984:182). With the decline in American whaling after the turn of the century, the economy of the western chain reoriented toward fox farming and trapping with the boom in prices for pelts occurring during the period 1920 to 1930. Not a traditional fur trade practice, fox farming and trapping was introduced by European immigrants as early as 1880. Near the turn of the century, foxes were being introduced to islands and trapped regularly. Aleut trappers became involved but were highly dependent on the traders, some of whom were vigorously criticized for taking advantage of the Aleut trappers. By the 1910's, Government policies sought to protect Aleut trappers by leasing entire islands to particular villages, notably Atka and Nikolski, and to Aleut individuals. Although a few American traders continued to derive great wealth from trapping, many Aleut communities and individuals experienced only a brief period of affluence. In 1931, the village of Atka grossed $65,000 from fox trapping (Anonymous 1980:106). Among the more impressive displays of this wealth was the purchase of the ill-fated schooner, the Umnak Native, by the people of Nikolski. That vessel was wrecked in 1933. Soon thereafter, the Great Depression put an end to the demand for fox pelts. About the same time the bottom fell out of the fox fur market, a commercial herring fishery was opened in the Unalaska area (Lantis 1984:182). The fishery sustained a strong local economy through World War II.

In the eastern Aleutians cod and salmon fisheries were established during the 1880's. Salteries and other processing facilities accompanied these industries. The

fisheries markets grew so rapidly that Sand Point was founded as a supply center for the cod fishery in the 1890's (Fitzgerald 1981). Important to the later character of this region, is the fact that many Scandinavian fisherman arrived from San Francisco, then the center of west coast fishing, to engage in the cod fishery. They stayed, often married Native women, and gave rise to succeeding generations of commercial fishermen. Large-scale salmon processing began after World War I in this region, but few processing operations employed local people until the manpower shortages of the wartime years.

Mining also was significant in the east Aleutians during this period. Gold was discovered on Unga Island in 1886, eventually producing $3 million for the Alaska Commercial Company (Anonymous 1980:117). A large population of Aleuts and non-Natives resided there until the 1930's.

The early American Period was punctuated by the region-wide influences of American schools and missions. The last of the Russian Orthodox Church schools was forcibly closed in 1912 (Lantis 1984:180). Also during this period, a unique system of Federal resource-harvest management was established in the Pribilofs. Of considerable importance was the development of commercial fisheries throughout the chain and the consequences of racial admixture of Scandinavian-American fishermen with Natives.

I.C. The Relocation and Post-War Period (1942-1960)

The Japanese invasion of Kiska and Attu Islands and their strafing of Unalaska brought cataclysmic change to Aleut society. In 1942, all Aleuts west of Unimak Island were evacuated from their communities and forcibly relocated to abandoned canneries in Southeastern Alaska (Orbach and Holmes 1986:93-94). This was justified in part by a

Government desire to protect the Aleuts. Some of the Natives from Attu, for example, had been captured and taken to Japan as prisoners, but the islands (and the evacuations) served other wartime purposes. Atka was razed to deny facilities to the Japanese, and other Aleut communities were used to billet American military personnel. Non-Natives were not relocated, and the fur seal harvest crews from the Pribilofs were returned to the Islands for the harvest season in 1943 (Orbach and Holmes 1986:93-94). That event preceded by 1 year the return of all Pribilof Aleuts. After the war, Aleuts were not allowed to return to the islands closest to the Soviet Union--essentially all of those villages west of Atka.

Conditions in the Southeastern Alaska relocation camps were deplorable. Accommodations were makeshift, there was no medical care, and food supplies were neither Native fare nor adequate. The period is described by many key informants as a time of sickness and constant hunger. The return home was equally bitter; many homes had been ransacked and churches vandalized by the American troops.

In the post-War period, the sources of pre-War economic activity were not reestablished in the western chain, and the subregion languished economically until the king crab fishery began to emerge in the 1960's. In the eastern chain, the commercial salmon fishery was reestablished and grew in importance. In the Pribilofs, the fur seal harvest resumed, although declining post-War fur prices caused the harvest to lose substantial sums of money, and the harvest required a growing level of Federal subsidization to continue.

Politically, the key event of this period was the filing of claims of redress against the Federal Government for wartime relocation. Despite the human costs of this action, it had ruptured the Pribilof Aleuts' isolation. The Aleuts' exposure to the Alaska Native Brotherhood while detained in Southeastern Alaska gave rise to the formation of an analogous organization in the Pribilofs. One of the organization's first undertakings was the submission of two claims to the Indian Claims Commission. The claim known as Docket 352 focused on the breech of fair and honorable dealings with the Pribilof Islanders (Orbach and Holmes 1986:95). The case is known colloquially as the "Corned Beef Case" because Aleut laborers were often compensated simply with canned meats, while only the white civil servants could eat fresh beef. The other claim, known as Docket 369, made similar charges on behalf of the Aleut Tribe in reference to the abrupt closure of the sea otter harvest in the early 20th century. Both cases languished before the Commission until the late 1970's.

I.D. The Land Claims Period (1960-Present)

The initiation of a broad range of human service programs under the "War on Poverty" initiatives during the Johnson administration created new opportunities for Aleuts to meet together regionally and with other Alaska Natives. These "Great Society" programs placed some administrative and planning functions for services in Aleut hands for the first time, and one ramification was a greater familiarity with Federal institutional processes gained on the part of some Aleuts. These opportunities coincided with a pan-Native rights movement that was evolving at the same time (cf. Lantis 1973). These trends provided some of the impetus for a statewide land claims movement. With the

passage of the Alaska Native Claims Settlement Act (ANCSA) in 1971, a wholly new institutional environment for Alaska Natives was set in motion. Of key importance to the promotion of ANCSA in the Aleutian-Pribilof Islands region, was the establishment of the Aleut League in 1967 (Lantis 1984:180), which gave rise to both the Aleut Corporation and, in 1977 (through a merger with the Aleut Planning Commission) to the Aleutian-Pribilof Islands Association.

It is significant that during this period the Indian Claims Commission issued judgments on behalf of the Pribilof Island and the Aleut Tribe for $2.5 and $8.5 million, respectively. In concert with American citizens of Japanese ancestry, the Aleut leaders succeeded in persuading Congress to establish a Commission on the Wartime Relocation and Internment of Civilians. The Commission conducted extensive and emotionally charged hearings in Alaska in 1981. The Commission found that compensation was due the Aleut people and reported these findings to Congress in 1983. According to a 1989 KI interview, in August 1988, Congress passed the Aleutian and Pribilof Islands Restitution Act, which provided for a settlement amount of $5.6 million to be distributed in individual payments of $12,000 to relocatees, a $1.4 million fund for repair and restoration of churches, a $5 million trust fund for community projects, and $15 million for loss of lands on Attu.

A pivotal event of the modern period has been the Federal withdrawal from direct management of the Pribilof Islands fur seal harvest. In 1981, the National Marine Fisheries Service announced its intention to withdraw from active management and subsidy of the fur seal harvest. Through the 1983 amendments of the Fur Seal Act, the

Government effected the withdrawal, arranging to transfer Federal properties associated with the seal harvest to the Pribilof Island municipal and tribal governments and village corporation. In addition, the Pribilof Island Trust was established in the amount of $20 million to provide for the social needs of the communities and to assist in the development of businesses and economic ventures not based on sealing.

II. POPULATION AND DEMOGRAPHY

The following section reviews the population of the Aleutian-Pribilof Islands Region in two aspects. First, the historic and contemporary population trends are reviewed; next, the ethnicity, gender,[1] and age structure of the contemporary population is summarized.

II.A. Overall Population and Net Changes Through Time

Rates of population growth have varied widely among communities and also within communities at various points in their histories (see Table 1). During the period for which we have data, only Saint Paul and Sand Point have shown sustained growth. The causes of population growth and decline in the Aleutian-Pribilof Island communities differ between communities and through time. However, the longer term trends generally may be attributed to particular economic opportunities near key villages. As Jones and Wood (1973) haved pointed out, historically, the region has witnessed a complex process of subregional population consolidation, where the villages with greatest

[1]At the request of the Minerals Management Service, the word "gender" is used in place of "sex," the more common term in demography. This convention will be used in all KI summaries.

economic viability have grown at the expense of other, less viable communities. Among the sample villages, Sand Point and Unalaska are examples of villages which fit this description. Of the seven villages in the Shumagin Island complex in 1890, only Sand Point remains today. Of the five communities in the Unalaska Village complex in 1890, only Unalaska survives (Jones and Wood 1973:6). Although receiving population from the nearby villages during the period, Unalaska nevertheless shows a net decline. This derives from the decline in its role as a transshipment center after 1900.

Table 1

HISTORIC POPULATION TRENDS

	1880	1900	1920	1940	1960	Percent Change
Atka	132[a]	128	56	89	119	-10
Nikolski	127	n/a	83	97	92	-28
St. Paul	298	n/a	212	299	378	+27
Sand Point	149[a]	n/a	158	99	254	+71
Unalaska	406	428	299	298	218	-46

Sources: Jones and Wood 1973; Rollins, comp. 1978.

[a] Figures for 1890.

Contemporary population trends also show wide variation between communities. During the period from 1960 through the mid-1980's, the regional population grew by 41 percent (See Table 2). The fisheries centers of Sand Point and Unalaska have shown extremely high rates of growth. Sand Point grew by 253 percent and Unalaska by 413 percent during the period, with especially pronounced growth during the 1970's (note: Dutch Harbor is included in the Unalaska figures). Saint Paul has experienced sustained growth, while the isolated communities of Atka and Nikolski have declined by 24 percent and 57 percent, respectively.

Table 2

RECENT POPULATION TRENDS

	1960	1970	1980	Post-1980	Percent Change
Atka	119	88	93	90[a]	-24
Nikolski	92	57	50	44[b]	-52
St. Paul	378	455	551	595[c]	+57
Sand Point	254	360	794/625[d]	896[c]	+253
Unalaska	218	342	1322	1,630[e]	+41
Region	6,013	8,057	7768	8,496	+41

Sources: Stephen R. Braund and Associates 1986:3-38; Rollins, comp. 1978; Alonso and Rust 1976:17.

[a] 1986.
[b] 1983.
[c] 1985.
[d] City Census/US Census.
[e] 1984.

Both historically and in the contemporary period, economic opportunities have played a major role in generating regional population trends. In this respect, the commercial fishing industry has been especially important in the contemporary period. The military importance of the Aleutian Chain also has played an important part, particularly during the short-lived wartime buildup of military personnel. The military influence reemerged in the mid-1970's, so that by 1980, 26 percent of the regional population was comprised of active duty military personnel (Stephen R. Braund and Associates 1986:3-37).

Migration patterns have also played an important role in both the historical and contemporary periods. Although the consolidation of the regional population in the larger centers was largely completed by 1960, migration from the smaller to the larger population centers in the region continued to play an important role into the 1980's. The fish centers, especially Sand Point and Unalaska, were further enlarged by seasonal and permanent influxes of non-Native migrants.

II.B. Age and Gender Profiles

Aleuts comprised only 25 percent of the regional population in 1980. This was due to non-Native penetration of the fishery centers and to the military contingent. Aleuts constitute strong majorities in Saint Paul and in the smallest villages (see Table 3).

The population of the Aleutian-Pribilof Islands Region is disproportionately male, comprising 63 percent of the population (see Table 4). The imbalance is found in all the sample communities, but is greatest in Unalaska. The causes of this imbalance are

Table 3

ETHNICITY STRUCTURE 1980

	Native	Percent	Non-Native	Percent
Atka	90	97%	3	3%
Nikolski	48	96%	2	4%
St. Paul	483	88%	68	12%
Sand Point	357	57%	268	43%
Unalaska	200	15%	1,122	85%
Region	1,934	25%	5,834	75%

Source: U.S. Department of Commerce, Bureau of Census 1982.

Table 4

GENDER STRUCTURE 1980

	Males	Percent	Females	Percent
Atka	51	55%	42	45%
Nikolski	27	54%	23	46%
St. Paul	315	57%	236	43%
Sand Point[a]	429	54%	365	46%
Unalaska	858	65%	464	35%
Region	4,878	63%	2,890	37%

Sources: CEDC 1986; Earl I. Combs, Inc. 1982; U.S. Department of Commerce, Bureau of Census 1982.

[a] Based on City Census, reported in Earl I. Combs, Inc. 1982.

found in the employment practices of the commercial fishing and seafood processing industries. The military contingent in the region is also predominantly male.

The populations in our sample have high median ages relative to other rural areas of Alaska. Medians range from 22.2 at Saint Paul to 40.7 at Nikolski. The median age for males is higher than the median age for females in each community. There are detailed analyses available for study area communities, except Atka, in Waring and Associates (1988). In all of the communities there is an imbalance of males over females, that is attributed to selective immigration of adult males and emigration of females (Waring and Associates 1988). This analysis, which incorporates earlier observations made by Berreman (1964) about Nikolski, finds that:

> ...[the] changing sex ratio reflects the changing circumstances of local life. Population counts from the Russian era consistently show a prevalence of females, probably the result of male conscription and fatalities from fighting and hunting. After the United States assumed jurisdiction, the opposite pattern asserted itself. Certainly, by 1942 and thereafter, males predominated, sometimes by a wide margin. Berreman notes that out-migration, especially by young women leaving to be married, was high before 1942. Between 1942 and 1952, there were seventeen emigrants; all but two of those relocated outside the region. Berreman (1964) also observed that not a single youngster who had gone outside the village for education had yet returned to live there...
>
> Berreman documents the substantial excess of deaths over births and emigrants over immigrants between 1942 and 1952....The climax of these trends is plain in the population composition data for 1970 and 1980. In 1970, the median age for males was 45.8 years, for females 32.5 years. By 1980, the medians were 47.5 and 32.5 respectively and Permanent Fund data for 1985 show a median age of 50.8 for the total population. These are the highest medians among the twenty-one study communities (Waring and Associates 1988:741-742).

The reasons for gender imbalances and high median ages of males are quite clear to all key informants, and their reports are supported by staff observations: the Aleutian area attracts a transient work force for the fishing industry, and this work force is predominantly male; the military installations are predominantly male; and since these populations are uniformly adult, their presence "ages" the male population in the region. Female outmigration is also undoubtedly one factor that contributes to this demographic profile, but our observations and responses from key informants did not identify any conspicuous female trend. Table 5 displays median ages in sample villages and highlights the unusual characteristics of Nikolski, a community discussed above which is unique in this region due to its "senior" age structure.

Table 5

AGE STRUCTURE (MEDIAN AGE)

	Males	Females	Combined
Atka	30.3	23.0	27.0
Nikolski	47.5	32.5	40.7
St. Paul	23.0	21.4	22.2
Sand Point	24.9	23.1	24.1
Unalaska	27.8	24.8	26.8

Source: CEDC 1986.

III. COMMUNITY ORGANIZATION AND ECONOMY

For the Aleutian-Pribilof Islands Region an overriding factor throughout this discussion will be the diversity of institutional forms. There is little that unifies the region in terms of forms of government, and commercial sectors operate within many distinct subregional spheres. The analysis here will highlight certain themes, such as Aleut participation in governance and the general scope of local government undertakings. Further details are available in other MMS documents: for Sand Point, see Earl I. Combs, Inc. (1982) and Impact Assessment, Inc. (1987); for Unalaska see Palinkas, Harris, and Petterson (1985) and Impact Assessment, Inc. (1987); for Saint Paul see Stephen R. Braund and Associates (1986) and Impact Assessment, Inc. (1987); for Atka see Impact Assessment, Inc. (1987).

III.A. Governance

Governance in the Aleutian-Pribilof Islands region is not organized into a regionwide borough, nor is it likely that a single regional entity of this sort will be formed. Because of the preponderantly non-Native population of the region as a whole, neither the regional non-profit corporation, the Aleutian-Pribilof Islands Association (APIA), nor the regional corporation, the Aleut Corporation, provides an analogue to regional governance that is provided by, say, the joint efforts of NANA and the Maniilaq Association in the NANA region (recently organized as a borough).

Instead, governance throughout the region is most decisive at the level of village institutions, with particularly strong local governments in Saint Paul, Sand Point, and Unalaska. With the formation of the Aleutians East Coastal Resource Service Area

(CRSA) in 1982, an important subregional entity in the eastern part of the region emerged. Under particularly dynamic leadership, the Aleutians East CRSA set in motion a successful campaign for formation of an Aleutians East Borough. The Borough was approved by the voters of the Aleutians East CRSA and began operations in July 1988. Another subregional entity, the Aleutian West CRSA, was approved by voters in Unalaska, Atka, and Nikolski and started its operations in July 1988. In the past few years, there has been a development of supralocal forms of government within distinctive subregions of the Aleutian-Pribilof Islands Region. Table 6 depicts the governmental and quasi-governmental forms in the Aleutian-Pribilof Islands Region.

Table 6

GOVERNMENTAL AND QUASI-GOVERNMENTAL ENTITIES

	Atka	Nikolski	Sand Pt.	St Paul	Unalaska
IRA	X	X		X	UADC/tribal
City	X		X	X	X
CRSA	X	X	X		X
Borough			X		
Village Corp.	Atxam	Chaluka	Shumagin Unga Sanak	TDX	Ounalashka
Aleut Corp.	X	X	X	X	X
APIA	X	X	X	X	X

Source: Field notes 1987.

In 1987, the smallest communities were governed through tribal institutions and the largest were dominated by State-chartered municipalities. Within the past 2 years, there have been changes in the institutions in the region. Besides the development of the supralocal forms in the subregions, there has been the formation of a State-chartered second class city in Atka and the formation of a tribal government in Unalaska. The city, borough, and CRSA's are all State entities.

A common reason given in the communities of the region for establishing State-chartered local governments is to obtain larger shares of fish taxes and other revenues to supplement declining pass-through funds from the State and Federal Governments. Aleutians East Borough assessed a 1.5 percent raw fish tax out of which $300,000 was set aside for capital improvement projects for their communities. As a second class city, Atka will receive triple the amount of municipal revenue-sharing funds from the State than they would have received as an unincorporated Indian Reorganization Act (IRA) community.

The smallest of the sample communities, Nikolski, is governed solely by a tribal government established under the extension of the IRA in 1936. The IRA governments in Nikolski and Atka were approved in 1939 during a period when the Bureau of Indian Affairs (BIA) was particularly active in implementing the IRA in certain areas of Alaska, including the Aleutian chain. The IRA Council in Atka remains active by operating the community store, the bingo hall, and social and health-related services.

IRA Councils, with seven members in Atka and five members in Nikolski, have exclusive Aleut membership. They oversee certain local services, notably water and

sewer. In July 1989, the City of Atka assumed control of water and sewer services. The Nikolski IRA Council generates electricity through its subsidiary, the Umnak Power Company, while in Atka electricity is generated by the Andreanof Electric Corporation, a subsidiary of the local ANCSA Village Corporation, Atxam Corporation (Atka Village Council 1986:16). Moreover, each IRA government owns a local store in its community. These stores are operated in association with the Alaska Native Industries Cooperatives Association (ANICA).

According to 1987 and 1989 KI interviews, the IRA Councils in these villages have expressed urgent concern for economic development so that they can remain viable. In 1984, the Nikolski Village Council obtained a $250,000 State appropriation to build a large meat-packing plant. The plant was intended to process meat from sheep and cattle ranching on Umnak Island; however, high costs associated with meeting regulatory standards and transportation to market have left the plant idle for all but a few months since it was built. In 1989, a resident of Nikolski repeated a concern expressed by Lt. Governor McAlpine as to whether the community would still be there in 5 years.

The central development focus of the Atka IRA Council has been to obtain and use public and tribal funds to support local participation in the halibut and other fisheries of the western Aleutian Chain area. Since Atka lacks port facilities, construction of a dock and port facilities has been a major goal. The U.S. Army Corps of Engineers reconnaissance and feasibility studies were completed in 1982-1983, but no construction funds have been committed. A State feasibility study was completed in 1984, and funding of $1 million was placed in the Department of Transportation budget

for 1989. However, the proposal was deleted from the final budget, and it now appears unlikely that State funds will be available for this purpose in the foreseeable future.

The Atka Village Council has committed its share of the Indian Claims Court Docket 369 compensation funds to the construction of an enlarged blast freezer fish processing plant in Atka (Atka Village Council 1986:23-25). The construction of the larger processing plant began during the summer of 1989. The processing plant is run by the Atka Fishermen's Association and is designed for the small scale fishery carried out using local skiffs. The Association was established in 1984 to enable locals to participate in the halibut fishery that may have access restrictions in the future. Fishermen process the catch themselves as soon as the openings end. In the early years of the fishery, the finished product was shipped to market through the regular supply service furnished by the BIA, making use of their landing craft. In recent years, the Association has sold their finished product directly to various floating processors in the area, using skiffs to transfer the cases from shore.

Sand Point and Unalaska are incorporated as first class municipalities under State law. Unalaska was incorporated soon after World War II in an action which, according to many Aleuts, institutionalized the dominance of non-Natives--a situation that was first established during the war (Jones 1976). The seven-member Unalaska City Council has always been dominated by non-Natives. One Aleut member sits on the current council. However, the past 3 years have seen an important shift in council composition as the dominance of people related to the seafood processing sector has declined and more of the council is drawn from long-term, non-Native residents. A five-member Planning

Commission has one Aleut member, a member who is married to an Aleut, and one who is a non-Native employee of the Ounalashka Corporation, the local ANCSA village corporation. The Unalaska School Board presently has two Aleut members.

Aleuts now comprise a majority of the seven-member Sand Point City Council and of the seven-member Borough Assembly (Field notes 1989; see also Impact Assessment, Inc. 1987:35). This reflects a marked increase in political participation among Sand Point Aleuts, in both elected office and in the vigor of the largest of the three Sand Point based ANCSA village corporations, the Shumagin Corporation. In the 1960's and 1970's, the municipal government was widely seen as dominated by a group of inmigrant school teacher/businessmen. The quality of Aleut political participation in municipal government is helped in no small measure by the fact that day-to-day operations of the city administration are in the hands of an exceptionally able team of Aleut women. The five-member Planning Commission includes two Aleuts, while the five-member School Board is predominantly female, with two Aleut members.

Tribal governments--IRA Councils--were not formed in either Sand Point or Unalaska during the late 1930's, nor was a "tribal organization" formed in Sand Point during the mid-1970's under the auspices of the Indian Self-Determination Act. In Unalaska, however, the Unalaska Aleut Development Corporation (UADC) was formed to receive a variety of funds, including 104A funds (a grant program designed to strengthen tribal governments) under the Indian Self-Determination Act. With a five-member Aleut Board, the Corporation has local responsibility for a variety of Native cultural heritage and tribal programs. The UADC is responsible for administration of

the Unalaska Aleuts' portion of the ICC Docket 369 compensation. The UADC has experienced severe funding problems lately, partly due to poor accounting for previous grants. In addition, the UADC Director suggests that coordination with the regional APIA has been problematic. In December 1988, in response to new Federal regulations, the Aleut community decided to form a tribal government and elected a committee to draft a constitution. This action was in response to a Federal regulation requiring Alaska Natives to be enrolled in a tribal entity in order to continue qualifying for Indian Health Service privileges. Until the constitution is formally approved by the Aleut community, it is uncertain what services UADC will continue to provide (Field notes 1989).

The Cities of Unalaska and Sand Point oversee large municipal governments providing a wide range of city services. Water, sewer, electricity, public works maintenance, planning and zoning, and public safety come under city auspices. In addition, both have aggressively expanded their infrastructure through State revenue transfers for capital improvements during the petro-dollar boom. Unalaska is upgrading its water and electrical systems to support new growth in the seafood processing industry. Sand Point has built a massive traveling lift to facilitate vessel repair.

Both city governments have activist and expansive attitudes. Sand Point has vigorously solicited private sector participation in development of marine service-related enterprises. Unalaska has sought shore-based processors while lobbying for a 100-mile priority-access zone within which sales to floating processors would be prohibited. In both communities, there have been housing shortages, which have required the cities to

work closely with their respective village corporations in land use planning and development of housing projects. The City of Unalaska also has prepared a bond proposal for expansion of school facilities.

Both city governments also have focused on developing supralocal institutions with political influence. Unalaska, through its activist mayor, was instrumental in the formation of the Southwest Alaska Municipal Conference, a grouping of municipal governments in the Bristol Bay, Aleutian-Pribilof Islands, and Kodiak regions. The Conference has emerged as a strong voice in fishery regulation and State fiscal policy. Sand Point officials led the move to create the Aleutians East CRSA. They also addressed the topic of regional governance and spearheaded the efforts to create the Aleutians East Borough. The priorities of the Borough government are now seen as protection of the area fisheries (through involvement in the suit against the State Board of Fish quota for the False Pass fishery), education (principally through the consolidation of the individual schools into the Borough School District and establishment of a scholarship fund), and capital improvement projects. The manager of the Borough has offices in Anchorage, the Borough clerk and planning office is in Sand Point, and the City of King Cove has a contract to handle financial matters for the Borough (Field notes 1989).

Saint Paul has a both an active (and at times activist) tribal and municipal government. The situation in the Pribilof Islands is unique due to the pervasive legacy of direct Federal administration of the community in service of the fur seal harvest. The National Marine Fisheries Service (NMFS) for many years provided basic municipal-type

utilities. In the post-Statehood period of involvement in Pribilof Island affairs, a 4th-class city government was incorporated in Saint Paul in 1971. However, the full exercise of municipal powers did not come until the withdrawal of direct Federal administration in 1983. The NMFS staff was able to exert strict control over the earliest efforts to form a community council under the IRA, dating back to 1936 (Torrey 1983:123). A more formal IRA government with greater autonomy came in 1951, only after the wartime relocation. During the relocation to Funter Bay, Pribilof Islands leaders became involved in the Alaska Native Brotherhood (ANB). In 1948, the Pribilof Islanders joined the ANB, obtained the legal services of the ANB attorneys, and in 1951 filed the two famous ICC claims (Torrey 1983:142-146).

As part of the plan for Federal withdrawal from administration of the seal harvest, a $20 million Pribilof Island Trust Fund was established by the Department of Commerce to ease the transition to a new Pribilof Island economy. In particular, the Trust funds are to be used to provide for the social needs of the communities and to assist in the development of an economy not based on sealing. Of the total, $12 million was earmarked for Saint Paul. As will be seen below, this source of funds has had enormous influence on the growth of local government in Saint Paul and has been at the center of a rather bitter competition between local entities.

The seven member IRA Council has undertaken a variety of programs and proposed other programs to their constituency and the community at large (ranging from the clearly governmental functions of a tribal land use and zoning ordinance, to economic development functions such as obtaining Economic Development

Administration (EDA) grants and participating in fisheries development). These IRA Council initiatives assert some governmental functions which overlap those administered by the municipal government. The IRA Council has pursued a program of Aleut cultural awareness and pride. The IRA operates the tavern and gasoline sales outlet, and recently contracted the management and operation of the local store to Delta Western. In addition to operating an icing plant, the IRA used its funds from the ICC settlements to guarantee fishermen's boat purchase loans and to operate a fish icing plant.

The IRA also has had a cultural agenda. Although not currently a prominent theme, in recent years the IRA has articulated a strong sovereignty position as a means of protecting Aleut tribal cohesion. Since 1984, when Federal legislation authorizing the commercial seal harvest expired, the IRA has assisted local participation in the operation of the subsistence fur seal harvest. Although costly to operate--and beyond the fiscal resources of the IRA during the coming year--this undertaking has been assumed as a commitment to Aleut cultural continuity.

Six Aleuts sit on the seven member Saint Paul City Council. Day-to-day administration of the city is in the hands of a city manager working closely with a local city administrator. The role of the Saint Paul municipal government includes the maintenance and delivery of water, sewer, electricity, and public safety. In addition, the city has placed great emphasis on pursuing State and Federal contracts and grants, including funds from the Pribilof Island Trust Fund for infrastructure development and business development. The city is by far the largest employer in Saint Paul. The city employs residents in infrastructure improvement projects, including weatherization, and

upgrading water, sewer, and electrical distribution systems. Finally, the city has taken a broad role in developing the infrastructure needed for the fisheries economy of the future. Saint Paul lacks a natural harbor, and development of a deepwater harbor stands as the single greatest obstacle to developing a local economy based on both commercial fishing and marine services. These services would include the sales of ice, water, and fuel; provisioning of crew-change facilities and airport services; removal of trash and sewage from docked catcher-processors; and minor repair services and supplies.

The development of a deepwater harbor has encountered delays. The original plans called for a phased development. Phase I, the building of a 800-ft breakwater and 650-ft berthing area, began in 1984. Phase II, the completion of the breakwater/wharf extension to 1,700 feet, was to be completed by 1986. In late November and early December of 1984, storm waves caused substantial damage to Phase I of the project. The destroyed breakwater had been built with local materials. Replacement of the breakwater and further harbor development was hampered by the following: (1) inadequate State funding; (2) potential litigation against the contractors who constructed the ill-fated Phase I portion; (3) unavailability of local anchor and armor stone of adequate size to reconstruct the breakwater; and, (4) problems posed in clearing the harbor of the debris from the damaged breakwater (Impact Assessment, Inc. 1987: 178).

The replacement of the 750-ft breakwater was completed in 1985. By 1986, a 200-ft dock was installed in the lee of the breakwater to accommodate fishing vessels with a maximum draft of 18 ft. A 1988 report by Bottin and Mize outlined the inadequacies of

this breakwater and recommended improvements, essentially a revised Phase II of the original project. The problems with the 1986 breakwater were: (1) insufficient length to provide wave protection to vessels using the dock; (2) scouring of an area seaward of the breakwater head; and; (3) accretion of sediment along the southeast shoreline of Village Cove (Bottin and Mize 1988:6-7). Harbor construction activity, dealing with those problems, was underway during the summer of 1989.

Although not technically a governmental entity, the Saint Paul village corporation, Tanadgusix Corporation (TDX), has exercised a major role in Saint Paul Island public policy. One of TDX's major undertakings has been to lobby for extension of the Fur Seal Treaty Act, which expired in 1984. Until the act is renewed, only subsistence fur seal harvesting is permitted under the terms of the Marine Mammal Protection Act. The TDX has committed substantial resources to ensuring the continuation of the harvest, primarily for its food value and social significance. The commercial harvest now sought is designed to pay the cost of wages and administrative overhead.

In addition, TDX intends to pursue its position as the major landowner on the Island in order to develop commercial ventures, notably a marine service center in the immediate harbor area. The TDX has leased existing buildings to a newly formed joint venture company, Pribilof Island Processing, Inc. (PIP), which has set up a crab and bottomfish processing plant. In March 1989, the plant had 120 workers of which almost half were local workers. The city has used trust and State funds to establish a new diesel tank farm for local use, as well as for fleet sales. This plan was seen as a preemptive move by the city to deprive TDX of local business; however, under the terms of the

funding (which is technically a loan), the facilities will be assumed by TDX after the loan is repaid or forgiven. The TDX has operated tourism services and facilities and now is leasing property to PIP among other commercial ventures on the island.

Within the study area, numerous overlapping functions are evident between and among local government entities. All but Saint Paul and Atka have either a tribal or a municipal form of government, so in most cases no competition arises between these two types of local entities. However, the situation in Saint Paul is quite different. Relations between local village ANCSA corporations and local tribal governments are generally very positive in Atka, Nikolski, and Saint Paul. Also in Unalaska, the Ounalashka Corporation has provided office space and clerical support for the tribal committee. Relations between village corporations and municipal governments in Unalaska, Sand Point, and Saint Paul show variation over time and between the communities.

In Unalaska, there have been quite serious conflicts over such questions as the city's 1986 annexation of much of Unalaska Bay and the ANCSA 14(c)3 reconveyances of corporation lands to the city. There has been little overlap in personnel between the corporation and the City Council, but key informants in both bodies observe that they have made substantial efforts during 1989 to open and strengthen lines of communication. For example, the initial objection to the annexation plan was settled through negotiation. Also, as the major property owner in the city, Ounalashka Corporation expressed concern over possible overextension of bonding obligations by the city for the water and sewer project and the school expansion. If the present bottomfish

boom ends suddenly, as previous booms (i.e., the crab fishing boom of the 1970's) have, there will be few taxpayers shouldering an increased tax burden (KI interview 1989).

In Sand Point, 7 years ago, there was some fear expressed among non-Native residents about how the major landholder, the Shumagin Corporation, would exercise its new economic (and potentially political) clout. Today, there is more overlap between the Shumagin Corporation Board and the City Council, Aleut involvement in city government is much stronger, and the relations between these institutions can be characterized as close and cooperative. The 14(c)3 reconveyances were settled early and amicably although it is important to observe that the city asked for a bare-minimum entitlement, in deference to the Shumagin Corporation's desire to retain as much of its commercially viable land as possible. Of particular note, the city declined to pursue land for housing as a 14(c)3 entitlement, and indeed cooperated in the Shumagin Corporation's development of its Meadows Subdivision project by providing the electrical, water, and sewer infrastructure.

The situation in Saint Paul has been exceedingly complex and fraught with high-pitched conflict during the study period. In fact, during the 1987 field season, one, two, and sometimes all three of the local administrative entities were locked in executive session meetings for entire mornings and afternoons, generally discussing conflicts over land in the harbor area. One prominent point of conflict in common with other Aleutian-Pribilof Islands communities and organizations is the dispute over ANCSA 14(c)3 reconveyances, which has pitted TDX (which is obliged to convey some lands to the municipal government but seeks to minimize this conveyance) against the city (which

needs TDX land for future municipal growth). However, other aspects of current disputes are unique to Saint Paul. The staffs of all three entities are almost entirely made up of Aleut members, both in the governing bodies and in the employee memberships.

There is overlap between leadership in the IRA and the City Council and relations are currently cordial. The current (1989) president of the IRA Council was the mayor of the City of Saint Paul in 1987. The IRA has retreated from its stronger assertions of sovereignty and tribal governmental authority, declining, for example, to call for transfer of TDX lands to the tribal government as a form of protection in 1991. By casting its role increasingly in terms of the protection of cultural heritage, the IRA has reduced the points of difference between the IRA and TDX. However, the same cannot be said of relations between the city and TDX.

There is considerable sensitivity among the Saint Paul entities concerning what they see as intrusive research accounts of relations between the entities. In the following paragraphs, the perspectives of the parties are first described without analysis or editorial comment. The analysis which follows is that of the author: it may differ from the perspectives of the parties without intending to demean their points of view.

It is the TDX perspective that the city has initiated too many new employment and city service programs that essentially comprise subsidized government businesses that infringe on TDX private-sector prerogatives. Much of the funding for these programs comes from the Pribilof Island Trust, and TDX officials object that these funds should be devoted to basic investments, not dispersed in transitory service employment. Although

some public infrastructure has been developed from these funds, they are not "productive" in the conventional economic sense. Moreover, much of this initiative is seen to contribute to the aggrandizement of the city when the funds could and should be devoted to strengthening exclusively Aleut entities. They find the point unconvincing that all city employment goes to local Aleut residents. For the long term, TDX holds that the private sector, principally TDX, should handle services, particularly the lucrative fuel distribution outlet.

In the view of city officials, the city has come into the role of major employer due to the urgency of the employment situation after the NMFS pullout. The city, they argue, was the only entity with the technical skill and administrative competence to manage the transition-employment program and the infrastructure-development projects on such a large scale. There is no essential argument with the view that municipal governments should develop infrastructure and leave enterprise to the private sector, and the city, in principal, agrees with the privatization of some of its current services (and has, in fact, actively encouraged privatization by providing loans and technical assistance to ex-employees who hope to offer services they previously provided as city employees). The city is governed by a predominantly Aleut City Council, and, except for a handful of people, it employs only Aleuts. Therefore, it serves the Aleut residents, not itself, in running the wide range of programs. Finally, in the city's view, under State law the city is more fully accountable for the use of funds and equity in providing services.

Analytically, the controversy over the scope of public and private enterprise seems secondary. There is no doubt that personalities loom large in this controversy, but as an

analytic matter, the basic question seems to be over the institutional forms that best protect Aleut distinctiveness and promise solvency and economic self-determination in the future. The Aleut participants in the city government take clear pride in the concrete accomplishments of the city administration and do not seem to consider Aleut continuity at risk in a municipal vehicle of local government. The TDX perspective, on the other hand, expresses an urgent challenge to the municipal vehicle, arguing that Aleut distinctiveness can only be protected through emphasis on exclusively Aleut institutions. In addition, TDX argues that, despite the equity inherent in municipal governments, ANCSA and IRA bodies are the only organizations with the capacity to protect island lands. The TDX also argues that, as the largest business and major landowner on the island, it should manage programs designed to foster business development and economic self-determination. However, the TDX perspective appears to diverge from that of the sovereignty or tribal rights movement in that the ANCSA village corporation rather than the IRA government is proposed as the best protector of an Aleut future.

Before the end of 1987, the city and TDX signed a Memorandum of Agreement concerning the 14(c)3 negotiations. Construction of fuel tanks to service fishing vessels by the city was able to proceed, and currently (1989) they are being operated by Crowley Maritime Fuels. The cost of fuel oil for residents of Saint Paul has decreased from $1.45/gal in 1987 to $1.30/gal in 1989. Also, as soon as the electrical usage of the PIP plant is determined, it is expected by the city that rates will be reduced from .38/Wh to .28/Wh. Although the harbor has not yet been completed (as of June 1989), the

facilities are adequate for regular deliveries of crab and fish for processing at PIP's facilities. In the spring of 1989, when the boats were delivering their catch, they utilized the city's fuel and water services and enabled the city to test out its delivery operation. It seems that after the Memorandum of Agreement was signed, TDX and the city have worked together to attract the various elements of the seafood industry to set up operations in the community.

Interregion relations are also complex. As noted, the municipal governments of this region have banded together with others from the Kodiak and Bristol Bay areas to form the Southwest Alaska Municipal Conference. This is a new organization which has developed substantial unity of purpose in lobbying for fishery regulatory changes and new State municipal fiscal policy. The tribal governments of the region do not have a regional membership organization as such, but the APIA provides services to tribal members in each of the communities. Each Native community is represented on the APIA Board, and APIA may only contract for BIA funds under the Self-Determination Act on the basis of specific authorizing resolutions from each community. More active in the smaller communities of the region and in the Pribilofs, APIA has deferred to the larger municipalities in Sand Point and Unalaska for the provision of human service programs. However, there are some frictions to be noted: APIA and the City of Sand Point were in vigorous competition for the planning grants associated with the formation of the Aleutians East CRSA, and, previously, UADC personnel complained about a lack of consultation from APIA on services in Unalaska.

In the formation of the subregional CRSA's and in the discussions for an Aleutians East Borough, certain subregional sensitivities emerge. For the smaller communities of the western chain, there is concern that Unalaska could readily dominate any such subregional entities, while in the eastern Aleutians, Sand Point is seen as the potential dominant force. It is important to note, however, that the Aleutians East Borough appears to have allayed these fears to a substantial degree. The small community of Akutan, 40 miles from Unalaska, has joined with the Aleutians East CRSA and Borough to avoid domination by Unalaska. (Note: similar fears concerning domination by hub communities are expressed in the Bristol Bay Region; see Bristol Bay Key Informant Summary.) The Aleutians East Borough Assembly has its seven representatives elected by the following formula: three from Sand Point, two from King Cove, one from Cold Bay, and one at large from either False Pass, Nelson Lagoon, or Akutan; there are two advisory positions to the assembly who are from the smaller communities. This formula enables the small communities to have representation on the assembly although they only have one voting member. The Aleutians East School Board has used the same formula. The Aleutians West CRSA board has one seat designated for the villages of Atka and Nikolski and the other seats are for Unalaska. One new technological innovation helps communication between the communities: there are fax machines for CRSA memoranda and documents in Unalaska, Atka, and Nikolski (Field notes 1989).

The individual village corporations function separately; there have been no mergers in this region. The Aleut Corporation is one of the ANCSA regional

corporations facing difficulties. Its presence in the region has been modest: fishing vessel and marine transportation investments at one time or another, and more recently, investment in an oil-exploration-support center on Saint Paul (which has since been sold to the City of Saint Paul when the Gambell-Stebbins suit temporarily terminated exploration and development in the Navarin Basin). There were no conflicts mentioned between village and regional corporations over surface and subsurface estates during field-research excursions.

III.B Commerce and Industry

The Aleutian-Pribilof Islands Region comprises several distinct subregional economies within a larger marine-based extractive economy. These economies do not form a neat continuum, but, nonetheless, there are certain commonalities between some of the communities and their economic bases. The economies of Sand Point and Unalaska are tightly integrated into the regional, national, and international seafood industry. The smaller communities have economies which are much more poorly integrated with regional and national markets. The two smaller communities of Atka and Nikolski are characterized by very marginal participation in the fishing industry, high reliance on transfer payments of various sorts, and an even higher reliance on subsistence foods. Saint Paul is anomalous, due to the extremely high level of subsidy it received during the post-War period up until the 1983 Federal withdrawal, and the continuing high level of public funds it has received during the "transitional period."

Economic activity in Sand Point and Unalaska is heavily oriented towards the commercial fishing industry. In Sand Point, a 1986 estimate suggested that 85 percent of

all employment was in fishing and seafood processing (Darbyshire and Associates 1986:10). The Sand Point fishery primarily extracts salmon, with herring, halibut and tanner crab as subsidiary species. The Unalaska fishery predominantly targets bottomfish. Crabbing has become a secondary pursuit since the collapse of the lucrative Bering Sea king crab fishery in 1982.

The Sand Point fleet is primarily local, numbering some 127 vessels, with 15 boats owned by nonresidents berthed in the community during the year (Impact Assessment, Inc. 1987:61). In addition, a number of Washington state based vessels call at Sand Point for supplies and repairs during the year. Fishermen from Sand Point participate in fisheries in the Shumagin Islands, the South Unimak area, and the Port Moller area. The Aleut residents of Sand Point are very prominent in the fisheries--in all gear types.

The vessels based in Unalaska are all almost exclusively owned and operated by nonresidents. There are only five salmon permits fished by Unalaska residents, and only a handful of vessels are owned by local residents. In the bottomfishery, the Unalaska region has seen a burgeoning growth of joint-venturing. In this arrangement, an American vessel owner agrees to supply fish to a foreign processing vessel, that receives the right to enter and buy fish within the 200-mile zone of American jurisdiction. Some 125 American trawling vessels, worth from $1 million to $3 million each, are currently involved in joint ventures in Alaskan waters. For 1987, their estimated sales to foreign processors amounted to $225 million (Tundra Times 1987:12). The joint-venture trawlers based out of Dutch Harbor are primarily all owned and skippered by residents of Kodiak or Washington State. Some local residents are employed as crew members,

but the net result is that local residents, and more especially the local Aleut residents, have low levels of participation in the harvesting sector of the regional commercial fishery.

Shore-based seafood processing is more broadly developed in Unalaska than in Sand Point, with more processors and more species processed. While the processors in both communities have had to diversify with changes in the availability of fish species, some especially important trends have emerged in Unalaska. Bottomfish processing is an important growth sector but requires new technology and investment. Two surimi plants have been established in Dutch Harbor since 1985. These plants process low-value bottomfish (mainly pollock) into a product which can be further processed into so-called seafood analogues--imitation crab and shrimp. One of the new surimi plants was forced to close in February 1987 for lack of product to process because the large number of local boats joint venturing with and delivering to floating processors at the fishing grounds deprived this plant of an adequate supply of fish. The other plant was operating at capacity with fish from one trawler fishing near Unalaska.

A feature common of the fishing economies of Unalaska and Sand Point is control by the State's regulatory system. In Sand Point many key industrial and civic leaders are concerned about the potential for a reduction in the allocation of stocks to the Alaska Peninsula fishery. This is a migratory fishery, targeting salmon stock, some of which are bound for Bristol Bay and the Yukon-Kuskokwim river systems. Fishermen in those areas have lobbied intensely for reductions in the interception (i.e., high seas) fishery in recent years. This situation, coupled with minor declines in the salmon fishery

and substantial declines and closures in the crab fisheries, has led some Sand Point fishermen to enter the bottomfish fishery. In 1981, there was no Sand Point vessel seriously engaged in bottomfishing, but key informants indicate that many are now participating in it.

For Unalaska leaders, the key regulatory question is how to influence fishermen to sell to the onshore processors. Those firms employ Unalaska/Dutch Harbor residents and contribute to local revenues. The City of Unalaska has been prominent in lobbying the North Pacific Fisheries Management Council to establish an exclusive zone of 100 miles around Unalaska within which sales to foreign processors would be prohibited. Joint-venture operators have vigorously opposed restrictions of this sort, since they would lose fishing time while making delivery runs from distant open-water fishing grounds to Unalaska and then back again. Some 31 operators have formed the American High Seas Fisheries Association to contest these proposals (Tundra Times 1987:12).

The commercial and retail sectors of Sand Point and Unalaska are highly developed. In large part, this is due to the stimulus of supplying the fishing vessels and the multipliers (i.e., contributions to secondary and ancillary industries) that stem from that business. The high cash flow in the fishing industry creates a high level of local demand for goods and services. In Sand Point, the Shumagin Corporation has purchased several local commercial enterprises, notably the bar and motel. Early plans for a shopping mall have been shelved while the Corporation has developed a real estate subdivision project. There has been a company investigating the feasibility of re-opening the gold mine on Unga Island. The studies are near completion and a company official

said the only thing preventing the re-opening of the mine is the price of gold. They felt that the mine would employ 50 people full-time once it was in production, and they have been working with the city and borough on planning for additional housing at Sand Point. The Ounalashka Corporation at Unalaska has been concentrating on its real estate leasing operations, which include several docks and extensive residential holdings. In the spring of 1989, Ounalashka Corporation sold most of its rentals because of the high expense of maintenance. In June 1989, they began the permitting process for development of major new dock facilities at Margaret's Bay (Aleutian Eagle 1989).

Local governments, including the school districts, are also significant employers in these two communities. The public sector, however, provides less employment than the fishing industry. Tax revenues from fishing operations provide important sources of revenue to the cities of Sand Point and Unalaska, serving to support city services and employment. Unalaska also has a property tax. With local revenues derived from the fishing industry, these communities are able to adjust to State cutbacks with less displacement of local employment.

With the relatively high standards of living in Sand Point and Unalaska, observations suggest that reliance on subsistence harvests of fish and game is low to moderate on the whole. Aleuts in both communities have higher rates of subsistence production than non-Natives. However, these rates are low compared to other parts of western Alaska. In Unalaska, the average proportion of subsistence foods in the diet of Aleut households is estimated at 20 percent, with some households ranging up to 50 percent (Veltre and Veltre 1982:113). In Sand Point, a similar range is probably evident.

The economic activity of Atka and Nikolski is characterized by very modest income levels, heavy reliance on public sector transfers for employment, little commercial and retail development, and considerable reliance on subsistence foods. The IRA Councils and their service operations provide some employment in each community. Additional positions, such as the Health Aid and the VPSO, are funded through State and Federal contracts to APIA.

Modest private sector businesses exist in both communities. Since the 1940's, sheep and cattle ranching have occurred at Nikolski. During the past few years, these operations have been under the auspices of the Nikolski's village corporation, Chaluka Corporation. Sales of wool have fallen off, though the herds continue to provide meat as a by-product. The Chaluka Corporation leadership recognizes that there will have to be substantial new capital investment to make the ranch a viable operation, and even then, the prospects for success are not strong.

In Atka, the major private sector initiative has been the formation of the Atka Fishermen's Association. Formed in 1984 to promote local halibut fishing, the association borrowed seed capital of $117,000 from the local village corporation, Atxam Corporation. A cold storage building owned by the IRA was converted to a blast freezer, and supplies and equipment were purchased. A new and larger capacity processing plant is being built in the summer of 1989. In 1984, 46,565 pounds of halibut were harvested (Atka Village Council 1986). The following year the catch rose to 80,000 pounds, only to fall to 7,000 pounds in 1986 due to an early closure. In 1988 the catch reached 37,000 pounds. In 1985, the association paid out nearly $50,000 to the producers

after deducting costs (Impact Assessment, Inc. 1987:191). Apart from its seed money loan to the Fishermen's Association, the Atxam Corporation has invested most of its money in money market and security accounts.

The early 1986 closure points up the regulatory dilemma of the Atka residents' halibut fishery. This fishery is regulated by the International Pacific Halibut Commission through a quota for the area as a whole. The vessels fishing in the region range from the 14 to 24 ft open skiffs fished by Atka men and women in protected nearshore waters, to outside longliners running thousands of hooks. These outside boats hail from Kodiak and Seattle, following halibut openings throughout Alaska waters. The intensity of effort in the Area 4 halibut fishery is such that in 1986, the full 3.4-million-pound quota was taken in 2 days. The association is lobbying--thus far without success--for a separate quota of 200,000 pounds for Atka-based vessels For the 1989 fishing season, though, lobbying efforts resulted in a larger number of short openings, which allowed for more local effort in the fishery. Distance and uncertain weather conditions discourages participation by large vessels during the short openings at the beginning of the season in Area 4B. Almost all the larger vessels wait to fish until the longer openings that occur toward the end of the season. This delay allows more opportunities for the small local boats to fish without competition during the early season openings.

Economic activity on Saint Paul shows unusual patterns relative to the other study communities due to the unusual circumstances created by the fur seal harvest and Federal withdrawal. During the 1989 field season, the village was entering its fifth year since the Federal withdrawal from the subsidized seal harvest. The city government has

emerged as the principal local employer, although more employment is being becoming available from activities involved with the PIP facilities and through TDX and the IRA council. Until 1988, virtually all employment from local institutions was based on public sector funds which were derived either from the Pribilof Island Trust or from State and Federal appropriations. Funds for the breakwater and the sewer and water system improvements provided the major share of 1987 city employment. The city payroll in 1985 was $927,057, compared to $543,366 for TDX and $232,862 for the IRA (Field notes 1987).

Key informants are concerned about developing a private sector economy in Saint Paul but are encouraged by the investment of outside firms such as Pribilof Island Processing and Crowley Maritime in local facilities. Support services to the Bering Sea fishing industry are seen as factors that will encourage long-term economic development. There is also the expectation that a local halibut fishery can be developed. The city's efforts to develop the breakwater and the efforts by TDX and the IRA council to develop service facilities and enterprises in the port area are all oriented toward this goal.

The cost of retail goods varies considerably within the Aleutian-Pribilof Islands Region. Tables 7a and 7b demonstrate that in 1987, it costs 27 percent more to buy a market basket of goods in the tiny village of Nikolski than for a comparison shopper buying similar goods in the large village of Sand Point. Competition, frequency of transportation, and economies of scale were important in keeping prices down in Sand Point and Unalaska, but even in Unalaska, shoppers who shopped at only one store and

Table 7a

RETAIL PRICE COMPARISONS, ALEUTIAN-PRIBILOF ISLANDS SAMPLE VILLAGES, 1987[a]

Commodity	Atka		Nikolski	St. Paul	Sand Point		Unalaska		
Stores	A	B			A	B	A	B	C
White Flour, 10 lb	5.40	[5.29]	5.65	6.89	4.07	6.29	4.55	5.50	3.98
Evap. Milk, 12 oz	.95	1.00	.95	2.39	2.11	.95	2.09	5.97	.89
Onions, 1 lb	.50	[.80]	.45	.62	.34	.49	1.79	1.42	.80
Cooking Oil, 48 oz	4.05	5.10	4.50	5.22	4.12	4.30	4.19	4.01	4.78
Cola, 6 pk	4.50	4.20	4.50	3.99	3.55	3.06	3.69	3.50	3.69
Gran. Sugar, 10 lb	6.45	[6.70]	7.15	8.29	5.69	6.29	6.50	5.90	7.38
Corn Flakes, 28 oz	3.15	3.00	3.15	4.79	2.51	2.55	4.14	4.40	4.79
White Bread, 1.5 lb	1.95	2.25	[1.91]	1.65	1.80	1.65	2.39	1.66	1.89
Bacon, 1 lb	4.25	[3.51]	4.90	4.35	2.79	1.79	3.35	2.88	3.75
Coffee, 3 lb	16.00	16.25	15.45	13.65	15.25	15.89	12.25	13.75	15.99
Butter, 1 lb	3.65	[3.84]	3.15	4.45	4.79	4.05	3.45	3.68	3.49
Milk Powd., 12 qt	8.21	6.75	8.69	9.39	7.84	7.85	9.35	8.38	8.34
Punch Mix, 30 oz	4.50	[4.55]	4.65	3.68	4.54	4.75	4.69	4.67	4.88
Totals	63.56	62.24	70.68	69.36	59.25	59.91	62.43	65.72	64.65
Low Prices	61.56				55.86			56.49	
% Difference Sand Point	+10		+27	+24				+1	

Source: Field notes.

[a] For some items comparison size was not available. Prices are adjusted for constant size. Low prices assume comparative shopping within villages.

[ ] Average prices for all stores are substituted for commodities that are unavailable.

Table 7b

RETAIL PRICE COMPARISONS, ALEUTIAN-PRIBILOF ISLANDS SAMPLE VILLAGES, 1987[a]

Commodity	Atka		Nikolski	St. Paul	Sand Point		Unalaska		
Stores	A	B			A	B	A	B	C
D Batteries, 2 pack	3.00	na	3.00	3.45	3.00	4.25	3.49	2.49	na
Blazo Fuel, 1 gal	na	na	6.70	na	5.23	5.00	6.99	7.88	na
Outboard, 40 hp	2250	na	na	na	na	na	na	na	na
Pampers Lg, 12 pack	5.38	na	na	6.81	6.52	5.55	4.44	6.04	6.95
Ax Handle	7.50	na	na	na	6.75	na	na	7.97	na
Skiff, 16-18 ft	2800	na	na	na	na	na	na	na	na
Gas Reg., 1 gal	3.65	na	4.00	1.73	na	1.25	na	1.41	na
Motor Oil, 1 qt	2.65	na	4.00	1.48	1.64	1.96	2.29	na	2.25

Source: field notes.

[a] For some items, the comparison size was unavailable. Figures shown here were extrapolated to provide a comparison price for a constant size.

did no comparative shopping would pay more for a market basket of goods than a shopper purchasing the same items in the small and distant village of Atka.

Distance from sources of supply and transportation costs appear significant for the other three communities, but Atka is an exception. For example, the village of Nikolski is situated 600 miles southwest of Anchorage, does not have large storage facilities, and does not have bulk purchasing power. Its prices are the highest in our sample. Yet

Atka, too, is a tiny village. Moreover, it lies 150 miles west of Nikolski. Atka prices are much lower than Nikolski prices. Intravillage retail competition or discounts from wholesalers that are provided for prompt payment (or both) may account for the lower prices at Atka. Sand Point shoppers who visited a single store would fare better than similar shoppers in the large but more distant (from Anchorage) village of Unalaska. It is likely that higher transportation costs and inflation, a common factor in boom towns, accounts for the high prices in Unalaska.

The striking feature of the hard goods (Table 7b) is that so many items were unavailable during the winter months in the Aleutian villages. Only the Atka store could arrange for delivery of skiffs and outboard motors. In other communities, fishermen had to arrange for purchases from Seattle or Anchorage suppliers. In Sand Point, processors would arrange gear purchases, taking the cost out of the fisherman's earnings. Blazo fuel was not available in two communities whose supplies may have been exhausted, and ax handles were carried in few stores, perhaps a function of the generally treeless nature of the Aleutian Islands. The small, aging population of Nikolski apparently had little demand for Pampers.

Retail price comparisons were also made in 1989 (see Tables 8a and 8b). In two communities, Atka and Sand Point, there are prices for just one store for 1989. In Atka, the second store had a reduced selection of goods (They no longer had over half over the items in the table.), so prices for this store were excluded. In Sand Point, the second store closed in December 1987.

Table 8a

RETAIL PRICE COMPARISONS, ALEUTIAN-PRIBILOF ISLANDS SAMPLE VILLAGES, 1989[a]

Food	Atka	Nikolski	St. Paul	Sand Point	Unalaska		
Store					A	B	C
White Flour, 10 lb	5.65	6.25	4.99	4.75	4.95	5.43	6.30
Evap. Milk, 12 oz	0.85	0.95	0.90	0.87	1.02	1.02	0.99
Onions, 1 lb	0.55	0.55	0.54	0.47	0.38	0.59	0.85
Cooking Oil, 48 oz	6.90	4.60	4.21	4.65	4.95	4.49	4.91
Cola, 6 pack	4.50	4.80	3.25	3.25	2.96	3.69	3.50
Gran. Sugar, 10 lb	7.15	8.10	6.35	6.43	6.50	6.61	11.95
Corn Flakes, 28 oz	5.55	3.15	3.47	3.11	[3.52]	3.05	3.09
White Bread, 1.5 lb.	2.05	2.50	2.03	2.05	1.54	2.77	1.89
Bacon, 1 lb	2.75	3.55	2.26	2.60	3.01	3.09	3.29
Coffee, 3 lb	13.08	16.80	11.66	12.19	13.41	9.47	10.99
Butter, 1 lb	3.25	3.55	4.49	3.17	3.61	3.72	2.89
Milk Powder, 12 qt	7.85	8.55	7.65	7.84	9.25	8.85	7.65
Punch Mix, 30 oz	4.15	4.00	3.15	3.79	3.83	4.05	3.89
TOTALS:	64.28	67.35	54.95	55.17	58.93	56.83	62.19
Low Prices						48.66	
1987 totals	63.56	70.68	69.36	59.58	64.65	62.43	65.72
Absolute change:	+.72	-3.33	-14.41	-4.41	-5.72	-5.60	-3.53

Source: Field notes.

[a] For some items comparison size was not available. Prices are adjusted for constant size. Low prices assume comparative shopping.

[ ] = Average prices for all stores.

Table 8b

RETAIL PRICE COMPARISONS, ALEUTIAN-PRIBILOF ISLANDS SAMPLE VILLAGES, 1989[a]

Commodity	Atka	Nikolski	St. Paul	Sand Point	Unalaska		
Store					A	B	C
D battery, 2 pack	3.80	5.15	4.12	3.75	4.18	3.34	na
Blazo Fuel, 1 gal	2.00	1.60	na	na	7.53	7.99	7.99
Outboard, 40 hp	na	na	na	na	na	2,964.00	2,964.00
Pampers Lg, 12 pack	6.55	na	7.25	7.69	3.74	3.98	5.48
Ax Handle	7.50	na	na	7.68	6.54	11.19	na
Skiff, 16 ft	na	na	na	na	na	na	na
Gas Reg., 1 gal	3.50	3.00	1.45	1.17	1.69	1.54	na
Motor Oil, 1 qt	3.40	2.25	1.53	1.14	1.68	2.44	2.15
Totals	26.75	12.00	14.35	21.43	25.36	2,994.48	2,979.62

Source: Field notes.

[a] For some items, the comparison size was unavailable. Figures shown here were extrapolated to provide a comparison price for a constant size. Note that totals cannot be directly compared due to unavailability of many items at some stores.

The difference that stands out in the comparison between the two years is the $14.41 reduction in prices in St Paul. As noted above, Delta Western, a private company, has taken over management of the IRA owned store; also notable, is the fact that only one community, Atka, experienced an overall increase in prices.

III.C. Health, Education, and Social Services

Human services are provided by a variety of agencies in the Aleutian-Pribilof Islands Region. The following paragraphs summarize the agency and institutional context for health, education, and social services. A brief interregional comparison of health service utilization is provided in the KI Summary Introduction.

Education:

Education services are provided in the five study communities by independent city school systems and by two Rural Education Attendance Area (REAA) districts. Sand Point and Unalaska operate independent school districts, but after July 1989, the Sand Point City School System will be consolidated into the Aleutian East Borough School District. Nikolski, Atka and Saint Paul also are served by REAA districts.

The histories of the independent city school districts in Sand Point and Unalaska are dissimilar in many ways. The Sand Point School District came into being as a result of a local movement which incorporated Sand Point as a first class city. The district continues to benefit from a vigorous school board and widespread community and family support of education goals. The Sand Point District achieves a high level of educational accomplishment, including high rates of post-secondary schooling and training. Unalaska, on the other hand, does not boast such vigorous community involvement in the school program.

The Unalaska/Dutch Harbor population is transient and predominantly non-Native. Furthermore, secondary school enrollments drop off from primary enrollments as many families relocate when their children reach high school age. Many

of those families have come to Unalaska and Dutch Harbor for employment. Lacking significant ties to the community, key informants indicate that they do not envision their children's futures as being in Unalaska, so they conclude that it is better for their children to obtain broader exposure in larger districts elsewhere.

School districts in both cities have access to local tax revenues. Both may use these resources if State cutbacks in support for education materialize. Sand Point has set aside contingency funds for this purpose, while the Unalaska City Council expressed grave concern recently about being forced to raise its mill rate on property taxes. This was particularly unpalatable, said some Council members, because many in-kind contributions to the school district budget were not taken into account in establishing the rates of required local support.

The REAA schools in the region are vulnerable to cutbacks in State funding to education. Without the potential for alternative local sources of funds, the REAA districts must absorb the cuts. The Pribilof Island School District has made major cutbacks in administrative personnel, and it may have to reduce classroom programs next year (1990). The Aleutian Region School District is now discussing cutbacks in enrichment travel programs which are greatly valued by the parents in Atka and Nikolski.

The Pribilof Island School District is distinct in that it sends all 11th and 12th grader's "off-island," primarily to boarding homes in the Matanuska-Susitna District near Anchorage. The school board and the parents insist that their children acquire broader educational experiences than can be provided in the local school. There is little fear that

the students will not return to the community. This district also is distinct because of the long tenure of its resident superintendent, who has raised his family in the community.

The Aleutian Regional School System has enjoyed strong and consistent leadership since its founding. But in July 1989, after the consolidation of the Aleutian East Borough School District, Atka and Nikolski will be the only two schools in the Aleutian Region School District. They plan on contracting with Chugach REAA for clerical and support services and on coordinating some school programs with the Unalaska City School District. In the past, one of the major commitments of the district has been to bilingual programs. Atka has one of the strongest Native language programs in the State, with a very gifted Aleut teacher who also is completing an education degree. Each year the Nikolski school is faced with the imminent threat of closure, since there are only three school age children in the community. The enrollment this year (1989) reached six only with the addition of the teacher's three children.

Health:

Health care facilities are provided in the region through private facilities and Indian Health Service (IHS) programs. These services are described below.

The cities of Sand Point and Unalaska have independent clinics, staffed by a resident physician's assistant (In Unalaska, there was a resident physician until July 1987.). The Unalaska clinic serves the regional fishing fleet and treats a broad range of illnesses up to serious industrial-related traumas. In 1987, the Sand Point Clinic formed a network with the King Cove and Cold Bay clinics to provide health care among those municipalities. By the end of 1988, the clinics were operating independently again.

Currently, the Sand Point clinic is run by a nonprofit corporation, whose board members are elected in a citywide election. The Sand Point Clinic also serves the regional fishing fleets, and because of this, it is confronted with a broad range of illnesses and injuries. The Aleutian East Borough has conducted a study of the health care systems in its communities and may be requesting health planning powers in the 1989 Fall elections.

Health care for Alaska Natives has traditionally been and still is nominally a direct Federal benefit. The clinics in Unalaska and Sand Point have had to make some accommodation for services to local Natives who are not accustomed to fees for health care. In Sand Point, the arrangement has been that people may see the health aid (whose salary is paid by APIA) for free. Consultation with the physician's assistant is on a fee-for-service basis. In Unalaska, the IHS allocates a certain monthly sum to the clinic to see Aleut patients. If that sum is not sufficient to cover all patients, then additional IHS-reimbursed services can be authorized by phone.

The Saint Paul Clinic is administered by the IHS in Anchorage and provides a high level of medical care through the services of a physician's assistant and several health aides. There is no fee for services. Over the last year, the Saint Paul Clinic has absorbed a growing nonresident client population from the Bering Sea fisheries fleets that anchor in the vicinity of Saint Paul since the city does not yet assess a fish tax; hence, vessels can moor in protected waters for "free" and remain in the vicinity of the fishing grounds. This new and growing client group requires treatment for industrial accidents, often requiring medical evacuation (Med-Evac) services to the mainland; however, key informants indicate that a significant proportion of these services to the

fleet now includes emergency care for drug overdoses. Some key informants, including clinic staff, have expressed fears that these new service demands could endanger services to residents by sapping limited funds; IHS reimbursement procedures are unsystematic and incomplete, often resulting in underpayments. A recent Med-Evac case involving a fisherman was assessed a fee of less than $100 although actual costs were said to have exceeded $1,000.

In Atka and Nikolski, health care is provided by community health aides who consult with physicians by phone. Funded through APIA, these services are provided at no fee.

The three larger sample communities are well-served locally by midlevel (or above) medical practitioners. However, particularly in Sand Point, this has come at the cost of much pressure to participate in fee-for-service medicine. While all Aleuts remain eligible for service at the IHS hospital in Anchorage, recent cutbacks have made transportation costs the responsibility of the patient, except in life-threatening cases.

Social Services:

Social services are provided in the Aleutian-Pribilof Islands Region primarily through regional programs. The APIA funds a professional counselor in Saint Paul and Sand Point, and administers a community mental health center, with a clinical psychologist in Unalaska. The Unalaska center extends services to the smaller villages of the region by consultation with local service providers and by village visits. The center also runs a local alcohol education program, which also entails visits to the smaller communities. Child protection services are provided through a State social worker in

Unalaska, but this position was vacant for over a year during the last field excursion (it was not scheduled to be filled until September 1989). Distance and limited travel support mean that most of this work is crises intervention rather than prevention. The smaller communities have no resident social services but must rely on informal assistance networks or call on service providers from the subregional centers. The lack of access to social services is perceived as a particular problem in Saint Paul, where there has been pressure for a local position for an agent of the Division of Family and Youth Services; a half-time position was established for Saint Paul in 1988.

Several important local undertakings merit mention. In Unalaska, a domestic violence program has been developing slowly for many years. Through awareness programs and victim support, Unalaskans United Against Family Violence (USAFV) has contributed to community understanding of the problem. A somewhat more diffuse effort is underway in Sand Point in the recently opened resource center. An old house was refurbished with donated materials and labor to provide a multipurpose facility, and this grass-roots venture served to draw together and further mobilize a network of health care and public safety personnel in Sand Point that recognized joint needs and the value of cooperative effort on behalf of those needs. Although domestic violence is seldom discussed in Sand Point (at least with researchers), the initiation of the program points to a growing willingness to confront the problem.

Saint Paul, too, has recently seen the development of a family services network, drawing together human service professionals and trained volunteers to adopt a

preventative as well as a crisis intervention approach to family and personal difficulties, including substance abuse and domestic violence.

Table 9 summarizes some of the services available in the study communities of the Aleutian-Pribilof Island Region. At a glance, it can be seen that the smaller villages have utility services and major facilities except gymnasiums. These small villages do not have local family counseling or jails because within these very small populations, crime or domestic and family conflicts are not thought to occur frequently enough or are not seen to be serious enough to demand permanent institutional services in those locations. Residents agree that problems do sometimes occur, but local services are seen as an unwarranted expense if they are used rarely (if at all) during any year.[2] Note, however, that criminal justice and social services are available from subregional or regional centers should they be required.

III.D. Sodalities and Voluntary Associations

One of the counterparts of changes in the broad kin-based characteristics of a traditional society is the elaboration of voluntary associations. These can fill social, recreational, and civic purposes. In the Aleutian-Pribilof Islands Region, a wide variety of voluntary associations can be found, with some in each community except for Nikolski. The proliferation of voluntary associations is most pronounced in Unalaska, while recent

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[2] One resident of Atka indicated that the last violent incident there which required intervention by public safety officials occurred in 1985. A review of recent criminal justice data showed that for 1987 and 1988 no residents of Nikolski or Atka were incarcerated for misdemeanors or felonies (Alaska Judicial Council 1988; Alaska Department of Corrections 1988).

Table 9

SERVICES AND FACILITIES, ALEUTIAN-PRIBILOF ISLANDS SAMPLE VILLAGES, 1987

Service/Facility	Atka	Nikolski	St. Paul	Sand Point	Unalaska
Health Clinic	yes	yes	yes	yes[a]	yes[a]
Sewer System	yes	yes	yes	yes	yes
Family Counseling	-[b]	-[b]	yes	yes	yes
Public Safety	VPSO[c]	VPSO[c]	City	City	City
Jail	no	no	yes	yes	yes
Schools	K-12	K-12	K-12/ Rur. Ed.[d]	K-12/ Rur. Ed.	K-12/ Rur. Ed.
Gymnasium	no	no	yes	yes	yes

Source: Field notes.

[a] City Clinics operated on fee for service basis, with some provision made for no cost care to Indian Health beneficiaries.
[b] Available from APIA staff.
[c] On call in Unalaska.
[d] Post-secondary courses offered through correspondence and teleconference.

trends in Sand Point suggest the demise of the Lion's Club following the departure of a key founding member.

The range of voluntary association is broad, from the church committee which looks after the Russian Orthodox Church and grounds, to the volunteer fire departments

found in nearly all communities. Self-help groups, such as Alcoholics Anonymous (AA), are found in several communities, as are classic fraternal organizations like the Ballyhoo Lions found in Unalaska. Unalaska also has an arts council and a public broadcasting board. Recreational clubs are common.

The police chief in Unalaska pointed to an interesting purpose behind developing a volunteer fire department and ambulance program in Unalaska. Contrasting his administration with what he considered the more provocative displays of manpower by his predecessor, he maintained that community relations are much smoother when many community people are involved in public safety. He felt it was important to bring the public into the public safety business, so that resentments and fears did not continue. Other key informants confirm that the high tensions of some years ago have subsided. At the same time, many express frustration that law enforcement cannot do more to suppress drug use and trafficking in Unalaska. Dogs trained in drug detection are now being considered for use at both Unalaska and Saint Paul.

III.E. The Main Trends of Sociopolitical Change

The broad changes in the Aleutian-Pribilof Islands Region can be summarized as follows: continuing development of the fishing industry, subregional differentiation, and reduced public sector expenditures.

Continued Development of the Fishing Industry: The economic motor for most of this region is the commercial fishery. For the established fishery centers, the trend is toward continued slow growth, including diversification into the nonsalmon species as a hedge against natural disaster, such as the king crab crash or regulatory disaster, such as

a cut back in the allocation for the False Pass interception fishery. The established centers can be expected to continue to grow in marine-related retail and service enterprises. The fishery will sustain a high standard of living in the established centers, lessening considerably the burden of the decline in State expenditures.

For the communities seeking to enter the regional fishery economies, substantial obstacles must be overcome. For both Atka and Saint Paul, development of a good harbor is crucial, as is startup capital. Saint Paul is well underway on this count. Since both the Atka and Saint Paul fisheries operate on a very small scale, a certain measure of regulatory protection is needed to assure them a toehold in the harvest. Saint Paul has achieved this measure, while the Atka fishermen have yet to obtain this modicum of security.

Subregional Differentiation: The second major trend in the region is subregional differentiation, particularly in the eastern Aleutians. The rise of the Aleutians East CRSA and the formation of the Aleutians East Borough is an expression of a growing sense of unity and local control of planning, taxation, and the delivery of services.

There is no comparable development in the western part of the region. Although the Aleutian West CRSA was formed, a June 1989 hearing on the feasibility of a borough in the region was met with negative comments, mainly concerning the lack of an economic base for the financing of a borough government. Also, Unalaska is sufficiently distinctive in character and large enough to scare off the smaller communities from forming a subregional organization in concert with Unalaska. As a result, Unalaska has

turned outward in its vigorous involvement in the Southwest Alaska Municipal Conference.

For the smaller communities, the results of subregional differentiation are likely to be sustained and even increased isolation, as distances and declining public funds restrict their level of participation in regional undertakings (Note the inherent constraints of small-scale institutions, such as a REAA with 27 students, described earlier.). Although fax machines will enable them to be more immediately aware of governmental decisions, telecommunications capabilities do not ensure a competitive edge in the broader institutional arena.

Reduced Public Sector Expenditures: Finally, the region will be adjusting in the next few years to a marked decline in public expenditures. Public works appropriations have been generous in recent years. Each of the communities boasts new facilities, ranging from a traveling lift and ferry dock to a new paved airport with a nondirectional beacon. New projects and the employment they bring will soon be only a memory for some time to come. Cutbacks in State pass-through money for local governments and schools will also decrease both capital and operations budgets, with complementary reductions in the workforce.

First class cities and the Aleutians East Borough (with a revenue base in the seafood industry) will likely accommodate this decline with much less damage than the smaller communities. To the extent that the public sector expenditures were the economic motor of the smaller communities, the downturn could have far reaching effects. It is difficult to predict whether the common response in the smaller

communities will be to tighten the belt and rely even more heavily on local foodstuffs, or alternatively, outmigration in search of work.

IV. HOUSEHOLD ORGANIZATION AND KINSHIP

IV.A. Kinship Organization

Pre-contact and early contact Aleut descent reckoning has been described as matrilineal, patrilineal, and bilateral (e.g., oriented through the mother, father, or both). As Margaret Lantis (1970:227) noted, the Aleut rule of descent is a "most perplexing problem." Lantis sides with Jochelson (1933) and the nineteenth century Russian, Veniaminov (1840), and classifies early Aleutian descent as matrilineal. Especially important was the avunculate in which the mother's brother exercised greatest authority over and provided the most extensive tutoring to the sister's sons and daughters. Father's brothers were next most important. Aleuts also practiced cross-cousin marriage, preferring selection of the mother's brother's daughter. Parallel cousins were treated as siblings. Sibling-cousin term distinctions, then, were consonant with unilineal descent.

Predominant avunculocal residence in which a man took his wife to reside in his mother's brother's home was well remembered by Jochelson's and Lantis' informants in the 1930's, as was retention of children by the wife in the event of a divorce. Residence was in extended family groups in the communal dwellings known as ulax in Aleut, or barabara in Russian. Entire villages were often made up of a large avunculocal sib. Several barabaras composed of separate extended families occurred in many villages.

One important effect of depopulation, forced resettlement, and centuries of missionary influence was to eliminate kinship practices which conflicted with non-Aleut

customs. Apparently, bilateral descent reckoning has replaced matrilineal principles. Whether some aspects of the avunculate and cross/parallel distinctions (e.g., differences recognized among offspring of mother's male kin and father's female kin versus others) in kinship terms have been retained, is not clear. Whatever the case may be, kingroup members are recognized widely, and strong bonds endure, even as members take up residence outside the Aleutian-Pribilof Islands Region.

Non-Natives residing in the Aleutian-Pribilof Islands Region tend not to have kin group members nearby. Friendships, often established in the workplace, and voluntary associations appear to establish alternative bonds.

IV.B. Household Organization and Economic Functions

With the proliferation of modern housing in the Aleutian-Pribilof Islands Region since 1980, nuclear family residences have become overwhelmingly the norm. Extended family residence is rare, although extended families may live in close proximity. Despite the change in coresidential units, many functions continue to be shared between relatives occupying different households. Changes in household composition and dynamics are frequently related to these shared functions and to changing economic circumstances of kin in home or nearby communities. In this sense, residence per se may not be a salient indicator of social organizational bonds at all times, but shifting residence patterns and the household organizational principles that families tend to uphold may reveal those bonds. We infer from general observations that interhousehold bonds that connect extended families and wider kindred persist in functional terms, despite changes in residential arrangements, especially in the more remote communities with smaller non-

Native populations (Atka, Nikolski, Saint Paul). This persistence is evident in patterns of food sharing, cooperative labor, sharing of capital of money, and mutual support.

Subsistence harvests are often conducted among siblings, age mates, and occasionally by an older man with a favored youngster. Subsistence foods are widely shared among kin group members and friends.

Elderly family members help with babysitting grandchildren, while offspring commonly help their elderly parents with household chores. Senior citizens may capitalize the subsistence ventures of younger kin who then help to sustain their elders with subsistence foods. Senior citizens also may own title to homes and have access to stable monthly checks (such as retirement income or State and Federal transfers, such as Old Age Assistance, Aid to the Blind, Supplemental Social Security Income, and Longevity Bonuses). Their possession of scarce resources and unproductive labor status often permits them to act as "hosts" for extended family household arrangements of either long or short duration within which resources are pooled to the benefit of all parties. Retirement incomes may be essential sources of money in Aleutian-Pribilof Islands communities for retirees as well as their kin. For instance, the total retirement income pool in Saint Paul in 1985 was $470,730 (compare this figure to the $232,862 payroll of the IRA, an important local employer; Field notes 1986-1987).

Meals are often shared between households, particularly when young adult family members return to the parental household.

The intensity of kingroup interactions is more marked in the smaller communities, but these interactions also persist in the Aleut portion of the Unalaska population.

Kingroup interaction in fishing production, especially cooperation as gill net crew members, is common in Sand Point; purse seine crews draw less commonly upon kin group members.

IV.C. Socialization

In traditional Aleut society, sustained socialization of young males occurred at the hands of the maternal uncle, a relationship termed the avunculate. The range of physical and intellectual skills required to become a successful maritime navigator and hunter was broad and complex, and many years were devoted to this task. Young women were instructed in the manufacturing, food preparation, and ritual skills by their mothers. Today the avunculate exists in only the most attenuated form, if at all. Many informants do not recognize this as a special relationship, while some fishing families spoke of sending their son out on a boat with his uncle for a season to teach him the ropes.

Today, despite the passing of the distinctive form of the avunculate, Aleut young people are subtly but pervasively socialized into key sets of understandings. Subsistence skills are an important component but not the key marker. Aleut language is transmitted intergenerationally only in Atka to any significant degree, but all the same, distinctive communication patterns, codes of deference in social interaction, and shared understandings about the Aleuts' place in the history of the region are passed on. In addition, key production skills, such as salmon fishing in the eastern Aleutians or the fur seal harvest in the Pribilofs, are set up and transmitted as ideals. Participation in the

Orthodox Church is also one of the key elements of Aleut continuity passed down to young people although the frequency of practice varies by community and family.

Recall that formal socialization institutions were introduced in the first quarter of the 19th century in the Russian Orthodox Church schools. Aleut literacy was much esteemed, particularly in the church context. Church schools were embraced and defended as "traditional" in the early American period, but the missionary and territorial schools were for the most part perceived as hostile to Aleut continuity, even if the pragmatic benefits of formal education were recognized.

Ambivalence about the role of the education system in transmitting Aleut heritage persists in some parts of the region today. Among the study communities, the Atka and Unalaska schools stand out in their commitment to bilingual and bicultural programs. Interestingly, in Saint Paul, there is some active opposition to bilingual and bicultural educational activities, and some families see them as competing for limited classroom time with other activities that they believe will be of greater use in the modern world.

V. IDEOLOGY

V.A. Religion

Precontact Aleuts observed a religion which saw the entire natural universe as animated by spiritual beings, that required many individual ritual observances, that offered the person of the shaman as intermediary between the human and the spirits, and that sustained elaborate mortuary ritual practices. Early in the 19th century, Russian Orthodox missionaries arrived in the Aleutian-Pribilof Islands Region. Through their commitment to Aleut liturgy and literacy, to Aleut church leadership, and to

tolerance of Aleut tradition, they made early and persistent headway. By the end of the Russian Period, the Orthodox Church was seen as Aleut tradition, and the distant ritual practices of the aboriginal period had fallen into disuse. Perhaps because of its development during a period of extraordinary adversity, Aleut orthodoxy would prove surprisingly persistent to the American missionaries and the American authorities who sought to close down the Orthodox Russian language schools in the first quarter of the 20th century.

Today, the Russian Orthodox faith remains a cornerstone of Aleut identity throughout most of the region. There are differences within the region, with some communities having very little Orthodox practice at all. And many families, though nominally Orthodox, are not active communicants. This prompts some non-Natives to disparage the Orthodox Church as a pack of superstitions. On balance, it is important to point out that the pressures of secularization have affected Aleut society in many of the same ways they have affected all industrial society. Nevertheless, Aleut orthodoxy remains strongly planted in Aleut identity, as can be seen in the fervor generated for the important seasonal celebrations, marriages, and funerals.

In the larger and more diverse communities of Sand Point and Unalaska, other denominations have emerged. The Baptist Church in Sand Point has developed a substantial following among both Aleut and non-Native families. In Unalaska, the nondenominational Christian Fellowship likewise draws a large and steady congregation. In Saint Paul, on the other hand, the Russian Orthodox Church has been the dominant religion for over 100 years despite missionary and evangelical proselytizing efforts over

the years. An Assembly of God pastor established a church in Saint Paul over 10 years ago which never attracted a sizable and stable congregation even though his efforts to serve the community and communicate a new interpretation of the Gospel were aggressive and unceasing. It is fair to say that the community as a whole actively resisted his efforts, and this vignette of sectarian dispute in Saint Paul has even earned a place in the main body of Aleutian-Pribilof Islands ethnographic literature (cf. Jones 1976).

V.B. Ethnicity and Tribalism

Ethnicity is a complex aspect of modern life in the Aleutian-Pribilof Islands Region. Current research on ethnicity emphasizes that it is processual and arises in the mobilization of key, often changing, symbols, to differentiate membership in an in-group, from that of one or many out-groups. Ethnicity arises in the social transactions at and across boundaries and is not a check list of fixed symbols of identity.

The fluid nature of ethnicity is amply clear in the Aleut region, for no single set of symbols serves to differentiate Aleuts from outsiders throughout the region. Indeed, in some communities, identification with the aboriginal past is very attenuated among some people who are very public Aleuts who serve with distinction on many of the Aleut entities created under the ANCSA.

The most salient tribal referents of Aleut identity are descent from the original inhabitants of the region, Aleut (that is, Russian) Orthodoxy, and Aleut language. These symbols are most conspicuous in two of the three predominantly Aleut communities of the study group, Atka and Saint Paul. The dynamic tension at social boundaries that promotes emblematic displays of ethnicity is low, since Aleuts are the majority

population and also dominate the main institutions. In these communities, a young and vigorous leadership group is working hard to assure the future viability of their communities, not just in economic terms, but also as distinctively Aleut communities.

Of recent historic experience, it is important to note that until the passage of ANCSA, Aleut identity was often widely disparaged. One cannot help but notice the Victorian notion of civilization at work in the historic photos of primly and neatly dressed Aleut young people in the early American period. During the brief period of mining boom towns and incipient commercial fisheries, the very active prejudices of the day disparaged Aleut traditions as wholly backward.

A somewhat counterbalancing feature emerged in the early 1950's when the leaders of the Pribilof Islands, influenced by the exposure to the ANB during the wartime relocation to Funter Bay, embraced the ANB agenda of land-rights advocacy and redress for past injustices which included for the Aleuts the filing of claims before the ICC. This involvement with the institutions of redress in American Indian policy presages the modern strength of Pribilovian identification as a tribe ("tribe" in the sense of American Indian law).

Subsequent to ANCSA and within the climate of the civil rights movement of the 1960's and 1970's, Aleut identity ceased to be a stigma. This renewal of Aleut identity is widespread among many individuals and families in the region. One sees it expressed most in community institutions in Atka and Saint Paul.

Among the nontribal features of ethnicity in the region, occupational identity looms the largest, particularly in the eastern Aleutians where the salmon fishery has

grown to such significant proportions, and in the Pribilof Islands where fur seal harvesting is conceptualized in guild-like terms by Pribilovians, and the vocation is considered an Aleut birthright (cf. Stephen R. Braund and Associates 1986). (Note, however, that when sufficient numbers of Saint Paul Pribilovians are unavailable for fur seal work, workers are occasionally imported from Atka. This has been the case for decades if not for at least a century. Note also that the original Pribilof population was drawn mainly from the Atka and Unalaska areas. It is possible that this "Aleut birthright" of fur seal harvesting also may apply to Atkans.)

The most prominent feature of identity among many in these communities is their competence as fishermen. Descent, of course, distinguishes them from inmigrant fishermen who will be known as outsiders for a long, long time, but it is their occupational status, and not tribal referents, that these people embrace as their badge of identity.

On a regional level, then, there are both tribal and nontribal features of Aleut identity. While identification as Aleuts has intensified in the post-ANCSA period, only in Saint Paul do explicit tenets of a tribal sovereignty doctrine emerge in community institutions. There is no regional unity, through institutions or diffuse beliefs and values, in a strong form of tribalism.

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