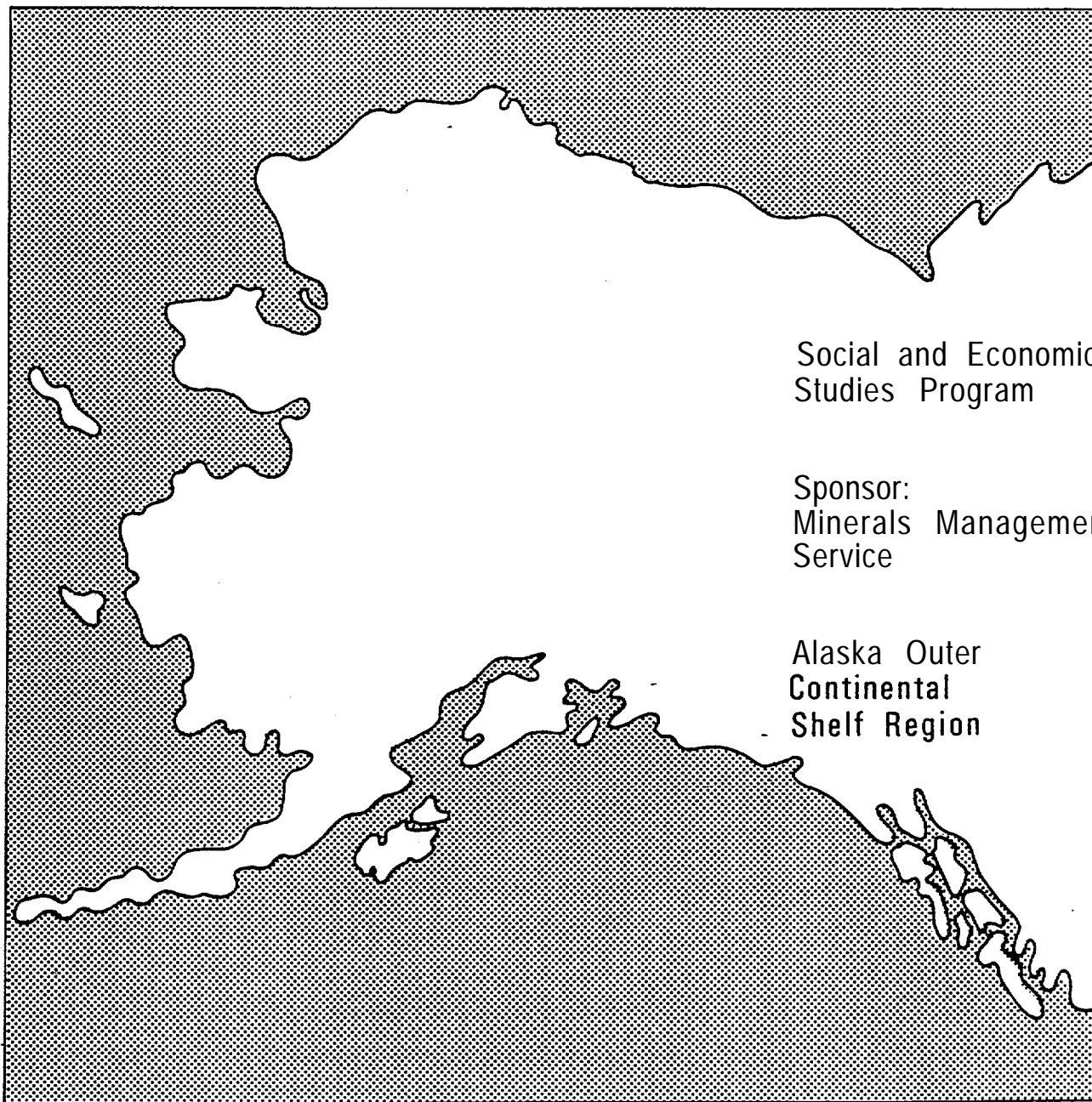Technical Report
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Social and Economic
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Alaska Outer
Continental
Shelf Region

St. George Basin And North Aleutian Basin
Economic And Demographic Systems Impacts Analysis

ST. GEORGE BASIN AND NORTH ALEUTIAN BASIN
ECONOMIC ANO DEMOGRAPHIC SYSTEMS IMPACTS ANALYSIS

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ABSTRACT

In this report, we present descriptions and "base case" projections
of population and employment for the communities of Unalaska and
Cold Bay.   We also present projections of the impacts on population
and employment in these communities which might result from the
proposed St. George Basin and North Aleutian Shelf OCS lease
offerings.

The future development of Unalaska is highly uncertain.   Our
projections suggest that the population of Unalaska in the year 2000
could range from as low as 900--only a little larger than the 1980
resident population--to as high as 4,600.   Future development of the
crab and bottomfish industries will be the key factor affecting the
future size of the community.

Unalaska is envisioned primarily as a marine support base for future
OCS development.   Our projections suggest that the relative impacts
of development resulting from the proposed lease sales would be
relatively small.   Development of both sale areas might increase
population and employment by approximately 15 percent during the
peak year of 1993.   These projections are-based on the assumption
that only workers associated with the shore base would become
residents of Unalaska.

Cold Bay is primarily a transient community based around aviation
and communication facilities.   In the "base case," the resident
population may fall by about one-third due to future cutbacks in
employment by the FAA, the U.S. Air Force, and RCA.   However, OCS
development in the Navarin Basin might reverse this decline,
bringing population back to approximately current levels.
Additional development from development of the St. George Basin or
North Aleutian Shelf OCS sale areas could further increase
population by as much as 40 percent, but Cold Bay would still remain
a small community of approximately the same size as it was during
the Vietnam war years.

In addition to our descriptions and projections for Unalaska and
Cold Bay, we have provided descriptions for Sand Point, St. Paul,
St. George, and Nelson Lagoon.   However, we do not expect these
communities to be directly affected by future OCS development in the
St. George or North Aleutian Shelf lease sale areas.

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for Unalaska and Cold Bay for the following cases:

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        Case G: Sales 89 and 92 Combined Impact Case

The chart on the following page shows the tables prepared for each
case.

TABLE NUMBER BY CASE							VARIABLES IN TABLE
A	**B**	**C**	**D**	**E**	**F**	**G**	
1	14	27	40	53	66	79	Resident Population, Nonproject Enclave Population, Project Enclave Population, Military Enclave Population, Total Population Including Enclaves and Military
2	15	28	41	54	67	80	Resident Population, Native Population, Non-Native Population, Native Male Population, Native Female Population, Non-Native Male Population, Non-Native Female Population
3	16	29	42	55	68	81	Resident Population, Preschool Age, School Age, Adult, Senior
4	17	30	43	56	69	82	Resident Population, Change in Resident Population, Natural Increase, Net Migration, Net Migration of Workers, Net Migration of Dependents
5	18	31	44	57	70	83	Resident Employment, Nonproject Enclave Employment, Project Enclave Employment, Military Enclave Employment, Total Employment Including Enclaves and Military
6	19	32	45	58	71	84	Total Resident Employment, Resident Basic Employment, Resident Support Employment, Resident Government Employment, Resident Project Employment
7	20	33	46	59	72	85	Total Resident Employment, Resident Fishing Employment, Resident Fish Processing Employment, Other Resident Basic Employment
8	21	34	47	60	73	86	Total Resident Support Employment, Endogenous Resident Support Employment, Government Sponsored Resident Support Employment, Exogenous Resident Support Employment, Enclave Sponsored Resident Support Employment
9	22	35	48	61	74	87	Total Civilian Government Employment, Endogenous Civilian Government Employment, Exogenous Civilian Government Employment
10	23	36	49	62	75	88	Onshore Short-term Skilled Project Employment, Onshore Short-term Nonskilled Project Employment, Onshore Long-term Skilled Project Employment, Onshore Long-term Nonskilled Project Employment, Total Onshore Project Employment
11	24	31	50	63	76	89	Offshore Short-term Skilled Project Employment, Offshore Short-term Nonskilled Project Employment, Offshore Long-term Skilled Project Employment, Offshore Long-term Nonskilled Project Employment, Total Offshore Project Employment
12	25	38	51	64	77	90	Resident Project Employment, Enclave Project Employment, Commuter Project Employment, Total Project Employment
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I. INTRODUCTION

In this study, we examine the impacts of the proposed St. George Basin and North Aleutian Shelf OCS lease offerings, scheduled for December of 1984 and April of 1985, upon population and employment in the communities of Unalaska and Cold Bay.   We also describe the populations and economies of the communities of Sand Point, St. Paul, St. George, and Nelson Lagoon.

In order to examine the impacts of development in the two lease areas, we use a model to project a number of economic and demographic variables for Unalaska and Cold Bay. The model is the Rural Alaska Model, or "RAM" model, which was developed at ISER with the support of the Social and Economic Studies Program for use in projecting impacts of OCS development.   Appendixes A through C provide a detailed description and documentation of the RAM model.

We prepared model projections for development in the absence of the lease sales (the base cases) and development with the lease sales (the impact cases).   The differences between these cases are the projected impacts of the lease sales.

The RAM model has several hundred equations and is calculated by computer, but " it actually uses a relatively simple procedure in projecting various economic and demographic variables.   Essentially,

we first develop assumptions about basic employment--emp'oyment which serves markets external **to** the community--for **each** year of the projection period. We also make assumptions about how many local-oriented jobs are generated **by** each basic job. Based on these **assumptions,** the model calculates total employment **in** the community.

We also make assumptions about population growth rates, labor force participation rates, and the extent to which people move into the community in response to the new employment opportunities or leave the community in response to lack of employment opportunities. Based on these assumptions, the model calculates population variables for each year of the projection period.

Finally, in order to project impacts. of OCS development, we make assumptions about total OCS-related employment broken down by skill level, duration of employment, and whether or not jobs are located onshore or offshore. These assumptions are provided by the Alaska OCS office. **We** make additional assumptions about the extent to which **local** residents could fill OCS jobs and the extent. to which new OCS workers **would** become residents of the community. Based upon all of these assumptions, the model projects total employment and population that would occur with OCS development.

The primary advantage of the **RAM** model over simple hand calculations is that the **model** can systematically and rapidly perform a great

number of calculations.   However,   as with any projection of the future,   the RAM model's projections   are only as good as the underlying assumptions.   There are considerable difficulties in developing these assumpt·ons for small communities such as Unalaska and Cold Bay.

For example,   we have attempted to base our assumptions upon data which describe current conditions in the communities.   However, in some cases data are several years out of date, are available only at highly aggregated levels, or are simply not available at all.   Even where data do exist,   they may not accurately reflect year-round population and employment conditions, which can vary significantly from season to season.

An even more difficult problem than the lack of data arises from the difficulty of making assumptions about conditions in future years. Even where reliable data are available on current conditions, these conditions are not necessarily a reliable guide to the future.

Because of the uncertainty associated with several key assumptions of the RAM model --in particular, our assumptions about exogenous employment--we have prepared low, medium, and high base case projections for each community.   The low and high case projections illustrate the sensitivity of our RAM model projections to these key assumptions.

We do not discuss the social changes that might accompany the changes in population and employment which we project. We also do not discuss possible impacts upon demands for land, housing, or public services or the ability of the communities to meet these demands. While these kinds of impacts may be more significant than might be suggested by population or employment projections, they are beyond the scope of this study. "

Models such as the RAM model are sometimes criticized as unrealistic simplifications of complicated demographic and economic systems. We are well aware of these deficiencies. Nevertheless, we feel that these models may serve a useful purpose in that they provide at least a starting point for projecting how communities may change. In addition, they impose a discipline upon projections of the future by requiring the underlying assumptions of the projections to be fully stated.

Organization of This Study

In Chapters II and III, we present descriptions of local history, population, and employment in Unalaska and Cold Bay, as well as our RAM model base case and impact projections for these communities. Our community descriptions are based upon published sources rather than extensive original research. We have attempted to avoid duplicating the large amount of research on these communities which has been undertaken in recent years, much of which has been funded

by the Minerals Management Service's **Soc·al** and Economic Studies
Program.

In Chapters IV-VII, we present descriptions of four **other**
communities which might be affected by the proposed lease sales:
Sand Point, St. George, St. Paul, and Nelson Lagoon. We provide
only base case RAM model projections "for Sand Point, and we do not
include RAM model projections for the other communities. This is
because it is unlikely that OCS facilities would be located within
or adjacent to these communities, and we would therefore not expect
significant direct impacts upon local population or employment,
which **we could** project using the RAM model.

We review our major conclusions in Chapter **VII.**

Appendixes **A** through C document the RAM model. Appendixes D through
I are technical appendixes which present data from a variety of
sources on each community, and which discuss how we used these data
to prepare our community descriptions and RAM **model** assumptions.
Appendixes J through **N** document our **RAM** model assumptions, and
Appendixes O through Q present our RAM model projections for
Unalaska, Cold Bay, and Sand Point.

II. UNALASKA

In this chapter, we briefly describe the history, population, and economy of **Unalaska.** We then present base case RAM model projections of the population and economy of **Unalaska** in the absence of development from the St. George **and** North Aleutian Basin lease sales. Because we do not know the future scale of fish processing activity and development from other OCS activity, our base case projections for **Unalaska** are highly uncertain. Therefore, we **also** present low and high base **case** projections in addition to our medium base case projections. Finally, we present RAM model projections of the impacts of development from only the St. George lease sale, development from **only** the North Aleutian Shelf lease sale, and development from both **sales** together.

Our description of **Unalaska** in this chapter is intended to provide a brief introduction to the community as well as a starting point for our projections. We refer those readers desiring a more. complete description of **Unalaska** to Social and Economic Studies Program Technical Report **No.** 92, prepared by Impact Assessment, Inc., entitled **"Unalaska:** Ethnographic Study and Impact Analysis" (Petterson et al., 1983). This study includes a detailed discussion of many aspects of the community of **Unalaska** including its history, population, **economy,** and infrastructure.

History

Unalaska is located in the Aleutian Islands about 800 air miles southwest of Anchorage. It is strategically situated in a protected harbor. It is only 80 miles from Unimak Pass, the first navigable pass between the Alaska Peninsula and the Aleutian Islands. This pass is also used by ocean vessels traversing a circular route from the northwest coast of the Lower 48 and Canada to the Orient.

The first people to inhabit the Unalaska region were those thought to have crossed from Siberia to Alaska on the Bering Land Bridge. These early inhabitants depended on the sea for their food, clothing, and other needs. In 1741, Russian explorers reached the Aleutian Islands and found an abundance of fur seals and sea otters to enhance their fur trade. After years of exploiting the resources of the Aleutians, enslaving the Aleuts for the cause of trade, and devastating the Native population through exposure to new diseases, the Russians moved eastward in search of better pelts in the late 1700s. However, they did retain several strategic outposts until about 1850. One of these was Iliuliuk Harbor, the site of Unalaska today.

After the United States purchased Alaska in 1867, the area attracted fur traders again, and fishermen and whalers as well. Unalaska became a coaling station and commercial trade center in the 1880s. During the gold rush days, many ships stopped at Dutch Harbor on

their way through Unimak Pass. By the early 1900s, the Unalaska community had several seafood processing plants which handled herring, salmon, and whale meat.

As oil replaced coal as the fuel for ships, Unalaska's coal trade diminished. Fox farming then sustained the area until the depression of the 1930s.

With World War II and increased Japanese aggression, Unalaska became a strategic port in the defense of the North Pacific. Dutch Harbor Naval Station and Fort Mears army base were established at Unalaska at the beginning of the war. In 1942, many Native residents were evacuated from Unalaska to Burnett Inlet north of Ketchikan where they remained until the end of the war. On June 3, 1942, carrier-based Japanese aircraft bombed Dutch Harbor. As a result, the military intensified their fortification efforts and engaged in major heavy construction. During World War II, the military population of the area reached a peak of 65,000. However, the military posts were abandoned in 1947, and by 1950 the population of Unalaska was only 173.

In the 1950s, there was renewed interest in harvesting the seas--this time for halibut, salmon, and king crab. Unalaska began a period of continued growth in the commercial fishing and fish processing industries. The number of operating fish processing plants increased from one in 1962 to five in 1967 and fifteen in

1980. The growth of **Unalaska as** a seafood processing center **was** largely due to the development of the Aleutian/Bering Sea king crab and tanner crab fisheries. However, with the abrupt decline in king crab stocks between 1980 and 1983, fish processing activity in **Unalaska** dropped sharply. **Unalaska's** potential for future growth **lies** in the harvesting and processing of **bottomfish,** service to ocean vessels, and in staging and "supply activities for outer continental shelf oil development.

Population

A primary problem in discussing the population of **Unalaska** is the lack of reliable data. According to Petterson **et al.,** "great caution must be taken when examining **(Unalaska** population statistics). Given the oftentimes haphazard nature with which population surveys have been obtained in **Unalaska** in the past, none of these figures, with the exception of the most recent population surveys, can be relied upon with any definite certainty" (p. 82).

Given these problems, Petterson et al. summarized post-war population trends in **Unalaska** as follows:

> During the post-war period, the population of **Unalaska**
> declined as economic opportunities were minimal. It was
> not until the late 1950s and early 1960s that the popu-
> lation began to display any noticeable increase. The
> community experienced another dramatic **influx** of outsiders
> in the early 1970s with the economic boom created by the
> crab fishery. The population increased almost fourfold in
> less than 10 years. With the recent economic downturn, the
> population has begun to level off (p. 81).

Table II-1 summarizes these trends. The total population of Unalaska increased from about 340 in 1970 to over 1900 in 1981.

Table II-2 shows estimates of the ethnic breakdown of the total population of Unalaska for 1970, 1977, and 1980. In 1970, the majority of the population were Native Alaskans, primarily Aleuts. 8y 1980, the share of Aleuts in total population had fallen to 15 percent. About 64 percent were White, and most of the remainder of the population were Asian or Pacific Islanders (primarily Vietnamese and Filipinos).

The population of Unalaska is highly diverse with respect to the length of time that they have lived in the community and the extent to which they consider themselves permanent residents of Unalaska. Most Aleuts have lived in Unalaska for much, if not all, of their lives and consider themselves permanent residents. Most Vietnamese and Filipinos, in contrast, are nonresidents; that is, they are employed in fish processing plants, live in quarters provided by the fish processing companies, and are only working in Unalaska for a brief period of time. Whites, who constitute the majority of the population, include permanent residents, short-term processing employees, and an intermediate group who may live in Unalaska for a number of years but do not really have strong ties to the community and consider their true home to be elsewhere.

TABLE II-1
POPULATION OF UNALASKA,
1939-1981

Year	Total Population	Residents	Non-Residents	Uata Source
1939	298			Alaska Consultants 1981
1950	173			U.S. Bureau of the Census
1960	218		–	U.S. Bureau of the Census
1967	254			Unalaska City Council Files
1970	342	178	164	U.S. Bureau of the Census
1972	548	430	118	Unalaska City Council Census
1973	510			Unalaska City Council Census
1977	1,971	615	1,256	Tryck, Nyman and Hayes, 1977
1980		724[a]		U.S. Bureau of the Census
1981	1,944	1,054	890	Department of Labor, State Demographer, State of Alaska: Special Census of Unalaska

[a]Arrived at by subtracting 598 persons living in group quarters from total population of 1,322.

NOTE : Adapted from John Petterson et al., Unalaska: Ethnographic Study and Impact Analysis. Social and Economic Studies Program Technical Report Number 92. Anchorage Minerals Management Service, August 1983, page 83.

a

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TABLE II-2
ETHNIC COMPOSITION OF POPULATION
OF UNALASKA, 1970-1980

</div>

Ethnic Group	1970[a]		1977[b] Year		1980[c]	
	Number	Percent	Number	Percent	Number	Percent
Caucasian	56	31.0	387	62.9	848	64.1
Black	0	0	7	1.1	19	1.5
Native Alaskan	113	63.4	178	28.9	200.	15.1
Aleut	107	60.1	166	27.0		
Eskimo	5	2.8	8	1.3		
Indian	1	0.5	4	0.6		
Other	9	5.6	35	5.7	255	19.3
Unknown			8	1.3		
TOTAL	178	100.0	615	99.9	1,322	100.0

SOURCES: [a]University of Alaska, 1973.

[b]Tryck, Nyman and Hayes, 1977.

[c]U.S. Bureau of the Census, 1980.

NOTE: Adapted from John Petterson et al., Unalaska: Ethnographic Study and Impact Analysis, Social and Economic Studies Program Technical Report NO. 92 (Anchorage, Minerals Management Service, August 1983), p. 85.

For our RAM model projections, we attempt to distinguish between two population groups--''resident population" and "enclave population." We define those persons who live in the community year-round as residents.

It is difficult to estimate the number of persons who should be considered "residents" as opposed to "nonresidents" or "enclave residents." Table 11-1 provides estimates of the breakdown of population between residents and nonresidents for selected years. The figures in Table II-1 suggest that the population of both residents and nonresidents increased from about 200 to 1,000 during the 1980s.

We base our RAM model population breakdown on the 1980 Census figures shown in Table II-3 (this table also includes census data for 1970 and 1960). The census measured 1980 population as 1,322. However, this figure included 598 persons living in group quarters whom we assume to be nonresident or enclave fish processing workers. By subtracting these persons, we obtain a total resident population of 724. To obtain a breakdown of resident population by age, sex, and race, we subtracted 598 persons from the non-Native population of 946 in the 20-34 and 35-64 age groups. To do this, we multiplied the census population for non-Native males and females in each of these two age groups by (946-598)/946, or .368. Our resident population assumptions are shown in Table II-4.

TABLE II-3
POPULATION OF **UNALASKA** AS COUNTED BY
U.S. CENSUS, 1980, 1970, **AND** 1960,
BY AGE, SEX, AND RACE

AGE

	g – 45-14	15-19	20-34	35-64	65+	Total
1980						
Total	46 102	99	795	268	12	1,322
Male	29 44	60	534	184	7	858
Female	17 58	39	261	84	5	464
Native	11 40	26	75	42	6	200
Male	8 19	16	46	28	3	120
Female	3 21	10	29	14	3	80
Non-Native	35 62	73	720	226	6	1,122
Male	21 25	44	488	156	4	738
Female	14 37	29	232	70	2	384
1970						
Total[a]	32 75	29	81	119	6"	342
Male	17 37	15	44	73	2	188
Female	15 38	14	37	46	4	154
Native[b]	23 56		54	80	5	218
Male	10 27		25	50	2	114
Female	13 29		29	30	3	104
Non-Native	9 19		56	39	1	124
Male	7 10		34	23	0	74
Female	2 9		22	16	1	50
1960 Total						218

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Table II-3 Notes

^aMany documents and publications give 178 as Unalaska/Dutch Harbor's population for 1970 as reported by the U.S. Bureau of the Census. In the mid-1970s, the Bureau revised this figure to 342. It gave no specific explanation for the change. The Bureau does give this general explanation in the 1980 publication Number of Inhabitants for these instances: "The count has been revised since publication of 1970 census reports, or the area was erroneously omitted, or the area was not shown in the correct geographic relationship in the 1970 census reports."

Since the age-sex breakdown was not available for the revised figure, but was available for the earlier count of 178, we applied the percentages for each age-sex cohort for the 178 count to the 342 count to obtain the age-sex cohort figures for the total 1970 population. (No military establishments existed at Unalaska/Dutch Harbor at this time, so a disproportionately larger population in the male cohorts aged 15-19 or 20-34 would not be expected.)

^bFor the total number of Natives residing at Unalaska in 1970, we used the estimated percentage of total population that was Native obtained from D. Jones in a personal-communication on June 2, 1983. This percentage was 63.8. We applied this to the revised total population count of 342 which gave us the result of 218 total Natives.

An age-sex breakdown was not available for just Natives, but the 1970 unrevised data is broken down by age and by sex for "other races," i.e., those other than Black or White. We applied these percentages for each age-sex cohort to the figure of 218 to obtain the breakdown of Natives for 1970 given in the table. This last procedure may over-state the number of Natives because the percentages were obtained from data that included all races other than Black"or White.

SOURCES: U.S. Census for 1960, 1970, 1980.

Institute of Social and Economic Research. "Age and Race by Sex Characteristics of Alaska's Village Population." Alaska Review of Business and Economic Conditions (September 1973).

TABLE II-4
UNALASKA 1980 RESIDENT POPULATION
ASSUMPTIONS USED AS BASE FOR
RAM MODEL PROJECTIONS

Age Group	Native Male	Native Female	Non-Native Male	Non-Native Female	Total
o-4	8	3	21	14	46
5-14	19	21	25	37	102
15-19	16	10	44	29	99
20-34	46	29	179	85	339
35-64	28	14	58	26	126
65+	3	3	4	2	12
TOTAL	120	80	331	193	724

SOURCE: See Table II-3 and text.

9   "

Our resident population assumptions suggest that in 1980, out of a total resident population of 724, twelve persons were older than 65 and 148 were younger- than 16.   Natives accounted for 28 percent of the resident population and for 34 percent of the children under 16.

Employment

For several reasons, it is difficult to describe employment in Unalaska.   One reason is that there has been rapid change in the economy of Unalaska over time.   Fishing-related employment grew rapidly as Bering Sea crab harvests expanded during the 1970s. However, crab harvests have declined dramatically since their 1980 peak.

Secondly, employment varies considerably over the course of the yea r.   Employment in fish processing may be several times higher at the peak of crab fishing seasons than at. other times.

Thirdly, the majority of jobs in Unalaska are not held by residents of Unalaska, but rather by short-term transients who work in Unalaska for periods of several months, living in processor-provided housing and interacting only minimally with the local economy. For the purposes of our RAM model projections, it is important to distinguish between resident and nonresident or "enclave" employment.   However, most employment data do not separate nonresident workers from resident workers.

Table 11-5 shows the 1980 Unalaska employment assumptions on which we based our RAM model projections. We considered several different data sources in arriving at these employment assumptions. We present these data and discuss our employment assumptions in detail in Appendix O. Here, we will only briefly review our assumptions.

We assumed total full-time equivalent "employment of 1,500, of which 392 jobs were held by residents and 1,108 were held by nonresidents or enclave workers. All enclave workers were employed in fish processing.

We assumed that only 58 residents of Unalaska were employed in fish processing, and only 50 residents were employed in fishing (we did not include the many fishermen who deliver fish to Unalaska-based processors, but who do not reside in Unalaska in our employment figures).

We assumed total support employment of 200, which is divided roughly, equally between support employment serving markets extended to Unalaska (exogenous employment), support employment serving the local fish processing industry (enclave-generated employment), and support employment serving local residents (endogenous employment). Finally, we assumed government employment of 82.

TABLE 11-5
UNALASKA 1980 EMPLOYMENT Assumptions

	Resident Employment	Nonresident or Enclave Employment	Total Employment
Basic Employment .	110	1,108	1,218
Fishing	50		50
Fish Processing	58	1,108	1,166
Other	2		2
Support Employment .	200		200
Exogenous	59		59
Endogenous-Sponsored by Residents	82		82
Endogenous-Sponsored by Enclave Workers	59	—	59
Government Employment	82		82
Exogenous	6		6
Endogenous	76		79
TOTAL	392	1,108	1,500

- Assumed to be zero.

assumptions are for full-time equivalent employment.

SOURCE :   Table O-5; based on discussion of various data sources in Appendix D.

Assumptions for Ram Model Projections

A large number of assumptions are required in order to run the RAM model. Table II-6 summarizes the assumptions which we used for our Unalaska projections. We document our Unalaska RAM model assumptions fully in Appendixes K and N. In this section, we briefly review some of these assumptions.

TABLE II-6
SUMMARY OF RAM MODEL ASSUMPTIONS FOR
UNALASKA PROJECTIONS

<u>Population Assumptions</u>

1982 Resident Population

724 (1980 Census figure of 1,322 minus 598 persons living in group quarters).

Age, Sex, Race Breakdown of Population

Based on 1980 census (persons living in group quarters subtracted from non-Natives aged 20-64); age, sex, race distribution constant for non-Natives.

<u>Non-OCS Employment Assumptions</u>

1980 Resident Employment	392
Basic Employment	110
Support Employment	200
Government Employment	82

1980 Enclave Fish
Processing Employment

1,108

Exogenous Resident Basic Employment

Medium Case

Rises to 170 by 1990 and 408 by 2000.

Low Case

Rises to 152 by 1990 and 185 by 2000.

High Case

Rises to 760 by 1990 and 1,310 by 2000.

Enclave Fish Processing Employment

Medium Case

Falls from 1,108 in 1980 to 609 in 1983, rises to 699 in 1990 and 1,776 in 2000.

Low Case

Rises to 417 in 1990 and 582 in 2000.

High Case

Rises to 1,136 in 1990 and 3,108 in 2000.

Endogenous Support Employment	Increases by 1 for every $93 thousand increase in resident income.
Endogenous Government Employment	Increases in response to **population** growth; response varies depending upon level of per capita state revenues. **In** 1984, projected government employment is 1 for every 6.6 residents. In 2000, government employment is 1 for every 10.7 residents.
Fish Processing Enclave-generated Support Employment	Increases by 1 for every increase of 19 in enclave employment.
OCS Enclave-generated Support Employment	Increases by 1 for every increase of 20 in OCS enclave population.

<u>OCS Employment Assumptions</u>

All offshore workers **assumed to be commuters who only pass through Unalaska.**

All skilled short-term onshore jobs **held** by enclave residents.

Some nonskilled short-term jobs held by residents.

All long-term onshore workers assumed to be residents of **Unalaska.**

	First year of Onshore Long-term Employment	Peak Onshore Long-term Employment
Sale 89 Low Base Case		none
Sale 89 Medium and High Base Cases	1996	217
Sale 92 Medium Base Case	1996	217
Sale 89 Impact Case	1994	235
Sale 92 Impact Case	1992	255
Sales 89 and 92 Combined Impact Case	1992	273

Base and Impact Cases

We prepared seven different sets, projections, or "cases" for **Unalaska.** These include four sets of "base case" projections and three sets of "impact projections." Our standard base case is the "Sale 89 Medium Base Case." This case includes what we consider to be the most likely assumptions for non-OCS-related employment as well as the **pre-Sale** 89 OCS employment assumptions which we have been instructed to use by the Alaska OCS office.

Our exogenous employment assumptions, in particular our fishing and fish processing employment assumptions, are very important for the model's projections **of** future population and employment in **Unalaska.** However, future **levels** of fishing and fish processing employment in **Unalaska** are highly uncertain because of fluctuations in stocks of species traditionally processed in **Unalaska,** such as crab, and because of the uncertain prospects for establishment of large-scale onshore **bottomfish** processing operations in **Unalaska.**

In order to examine the sensitivity of our standard base case to our employment assumptions, we prepared the **"Sale** 89 Low Base Case" and the "Sale 89 High Base Case." For the Sale 89 Low 8ase Case we assumed relatively low levels of fishing employment—slow recovery of traditional fish processing and development of only a small **bottomfish** industry--as well as no OCS-related employment. In contrast, for **the** Sale 89 High Base Case, we assumed relatively high levels of fishing employment--rapid recovery of traditional

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processing and development of a large **bottomfish** industry, together with our Medium Case OCS employment assumptions.

The Low and High Base Case projections indicate a reasonable range within which future population and employment in **Unalaska** might actually fall. We do not assign any statistical significance to these cases because we do not have sufficient information about the relative probabilities of different levels of fishing industry or OCS development. Nevertheless, we believe that these different base case projections are useful in indicating the uncertainty which should be attributed to our projections for **Unalaska.**

For the **Sale** 92 Medium Base Case, we assumed exploration but no development of the Sale 89 lease area. Thus, we assume identical levels of non-OCS employment as for the **Sale** 89 Medium 8ase Case, but we assumed slightly higher levels of OCS employment to account for exploration-only employment from **Sale** 89.

We prepared three impact case projections: the "Sale 89 Impact **Case,"** the "Sale 92 Impact Case," and the "Sales 89 and 92 Combined Impact Case." For our Sale 89 Impact Case, we added employment assumptions provided by the OCS office for development of the Sale 89 lease area to the Sale 89 Medium Base Case OCS employment assumptions. For the Sale 92 Impact Case, we added OCS employment assumptions for Sale 92 to the Sale 92 Medium Base Case OCS employment assumptions. finally, for the Sales 89 and 92 Combined

Impact Case, we added OCS employment assumptions for **both** sales to the Sale 89 Medium Base Case OCS employment assumptions. The projected Impacts of the individual and the combined sales were the differences between the impact case projections and the corresponding base case projections. For all of the impact cases, the non-OCS employment assumptions are the "Medium Case" assumptions.

RAM Model **Age** Distribution Assumptions for Non-Natives

We assumed a rapid turnover in **Unalaska's** non-Native population, resulting in a relatively constant age distribution over time. The assumption of rapid turnover is **not** necessarily valid for all non-Natives. We might think of the non-Native population as consisting of two groups. **One** group may consist of employees who are based in **Unalaska** for relatively short periods of time. This group would have a relatively constant age of distribution. Another group may be more permanent residents who might be expected to have a changing age distribution over time. However, because of the difficulties involved in modeling population age distribution for both groups simultaneously, we assumed that all non-Natives fall into the first group and, therefore, that the age distribution of non-Natives remains relatively constant over time.

Base Case **Projections**

Based on the assumptions presented in the previous section and in Appendix **K,** we used the RAM model to prepare projections of a number of variables describing the economy and population of **Unalaska** for

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the years 1981-2010.   Our complete model projections are presented
in Appendix 0, which includes 115 tables of projections.   In this
section, we summarize our base case projections, which are included
as Tables 0-1 through 0-52 and Tables 0-110 through 0-115 in
Appendix   0.   .

In this section, we primarily discuss the Sale 89 medium base case.
We only briefly discuss how the other cases--the Sale 89 low base
case, the Sale 89 high base case, and the Sale 92. medium base
case--differ from the Sale 89 medium base case.   However, the tables
in Appendix 0 provide complete projections for each case, which may
be used for comparison.

Table II-7 summarizes our Sale 89 medium base case population
projections for Unalaska. Resident population is projected to fall
from 724 in 1980 to 652 in 1983, and then climb gradually to a peak
of 2,275 in 1999.   The decline in resident population during the
early years of the projection period is the result of declining
fishing and fish processing activity.   However, subsequently a long
period of stable growth takes place due to the gradual regrowth of
the crab industry accompanied by expansion in bottomfishing
activities.

Table II-8 illustrates the sensitivity of these projections to our
exogenous employment assumptions, particularly our bottomfishing

TABLE II-7
SUMMARY OF SALE 89 MEDIUM BASE CASE
POPULATION PROJECTIONS FOR UNALASKA

	Resident Population	Native Population	Non-Native Population	School-Age Population (5-18)	Non-OCS Enclave Population	OCS Enclave Population	Total Population Including Enclaves
1980	724	200	524	181	1,108	0	1,832
1981	687	206	481	168	609	0	1,296
1982	665	212	454	160	233	0	898
1983	652	217	435	155	166	0	818
1984	791	223	569	186	186	119	1,097
1985	756	228	528	177	262	60	1,079
1986	788	234	555	184	337	52	1,177
1987	901	239	662	211	412	164	1,477
1988	888	244	644	208	488	37	1,413
1989	910	250	660	214	593	3	1,506
1990	974	255	719	230	699	6	1,679
1991	1,089	260	829	257	854	10	1,953
1992	,139	265	873	269	1,009	10	2,158
1993	,223	271	952	290	1,165	8	2,396
1994	,313	276	1,037	311	1,320	6	2,639
1995	,427	281	1,146	338	1,476	79	2,982
1996	,579	287	1,292	374	1,576	159	3,314
1997	1,808	292	1,516	427	1,676	253	3,737
1998	1,985	298	1,687	468	1,776	163	3,924
1999	2,275	304	1,971	535	1,776	66	4,117
2000	2,235	310	1,926	527	1,776	0	4,011
2001	2,233	316	1,917	527	1,776	0	4,009
2002	2,229	322	1,907	527	1,776	0	4,005
2003	.2,227	328	1,899	527	1,776	0	4,003
2004	2,226	334	1,891	527	1,776	0	4,002
2005	2,224	341	1,883	528	1,776	0	4,000
2006	2,223	347	1,876	528	1,776	0	3,999
2007	2,222	354	1,868	528	1,776	0	3,998
2008	2,221	361	1,860	529	1,776	0	3,997
2009	2,221	368	1,853	529	1,776	0	3,997
2010	2,220	376	1,845	530	1,776	0	3,996

NOTE : Appendix O tables refer to OCS population as "project population."

SOURCE : Population variables PO, PONA, PONN, POSL, EMENNOPJ, EMENPJ, POTO
DSET UN.89MBC, created 11/30/83.

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TABLE II-8
SENSITIVITY OF PROJECTIONS TO ASSUMPTIONS: UNALASKA
RESIDENT POPULATION
COMPARISON OF LOW, MEDIUM, AND HIGH SALE 89 BASE CASES

	Projections With Low- Growth Assumptions	Projections With Assumptions 'Used in Study	Projections With High-Growth Assumptions
1980	724	724	724
1981	687	687	687
1982	665	665	665
1983	652	652	652
1984	707	791	791
1985	732	756	780
1986	758	788	848
1987	764	901	1030
1988	822	888	1109
1989	844	910	1183
1990	878	974	1297
1991	912	1089	1552
1992	888	1139	1709
1993	894	1223	1895
1994	907	1313	2090
1995	913	142-7	2292
1996	911	1579	2541
1997	912	1808	3077
1998	911	1985	3564
1999	915	2275	4383
2000	918	2235	4618
2001	920	2233	4608
2002	921	2229	4595
2003	924	2227	4585
2004	926	2226	4576
2005	929	2224	4568
2006	932	2223	4559
2007	935	2222	4551
2008	938	2221	4544
2009	941	2221	4537
2010	944	2220	4529

SOURCE: Variable PO, study case DSET UN.89MBC, low and high case
          DSETS UN.89LBC and UN.89HBC

assumptions. In the Sale 89 low base case, resident population grows much more slowly than in the medium case projections, rising to only 915 by 1999--or only 40 percent of the medium-case level. In contrast, in the high case, population rises very rapidly, to nearly double the medium case levels. Thus, our population projections are highly sensitive to uncertain employment assumptions, and our "medium" projections should be viewed only as illustrative of one possible growth path for Unalaska.

As shown-in Table II-7, in the medium case the share of Natives in total resident population falls from 28 percent in 1980 to 13 percent in 1999. The model projects gradual growth in the Native population due to natural increase, while the non-Native population fluctuates depending upon economic opportunities.

Our projections incorporate our assumptions of a substantial decline in the nonresident or enclave fish processing population prior to 1984, followed by a period of steady increase. In addition, we assume OCS-related enclave employment associated primarily with Navarin Basin development peaking at 253 in 1997.

Table 11-9 summarizes our Sale 89 medium base case employment projections, and Table 11-10 compares our low, medium, and high base case employment projections. In the medium base case, resident basic employment rises steadily through 1998. Support employment falls through 1983 and then rises until 1991. Government employment

TABLE II-9
SUMMARY OF SALE 89 MEDIUM BASE CASE
EMPLOYMENT PROJECTIONS FOR UNALASKA

	Total Resident Employment	Resident Basic Employment	Resident Support Employment	Resident Government Employment	Resident OCS Employment	Non-OCS Enclave Employment	OCS Enclave Employment (Onshore Only)	Total Employment Including Enclaves
1980	392	110	200	82	0	1108	0	1500
1981	368	110	167	91	0	609	0	977
1982	352	110	143	99	0	233	0	585
1983	341	110	137	94	0	166	0	507
1984	426	116	164	125	21	186	119	731
1985	401	122	158	120	2	262	60	724
1986	419	128	165	124	2	337	52	808
1987	486	134	192	133	28	412	164	1,062
1988	476	140	184	144'	7	488	37	1,000
1989	487	155	190	142	0	593	3	1,083
1990	524	170	203	1 5 1	0	699	6	1,229
1991	593	200	225	168	0	854	10	1,457
1992	621	230	239	152	0	1,009	10	1,640
1993	671	260	258	153	0	1,165	8	1,844
1994	724	290	277	158	0	1,320	6	2,050
1995	193	320	304	160	9	1,476	79	2,347
1996	885	350	335	164	35	1,576	159	2,619
1997	1025	380	379	183	82	1,676	253	2,954
1998	1133	410	407	195	120	1,776	163	3,071
1999	1311	410	451	222	227	1,776	66	3,153
2000	1284	410	441	215	217	1,776	0	3,060
2001	1279	410	440	212	217	1,776	0	3,055
2002	1274	410	439	208	217	1,776	0	3,050
2003	1270	410	439	204	217	1,776	0	3,046
2004	1266	410	438	201	217	1,776	0	3,042
2005	1262	410	437	198	217	1,776	0	3,038
2006	1259	410	436	195	217	1,776	0	3,035
2007	1255	410	436	192	217	1,776	0	3,031
2008	1252	410	435	190	217	1,776	0	3,028
2009	1248	410	434	187	217	1,776	0	3,024
2010	1245	410	434	184	217	1,776	0	3,021

SOURCE: Variables EMRETO, EMBA, EMSU, EMGO, EMREPJ, EMENNOPJ, EMENPJ, and EMTO. DSET UN.89MBC created 11/30/83.

NOTE: Appendix O tables refer to OCS employments "project" employment.

TABLE II-10
SENSITIVITY OF PROJECTIONS TO ASSUMPTIONS: UNALASKA
RESIDENT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, ANO HIGH SALE 89 BASE CASES

	Projections With Low-Growth Assumptions	Projections With Assumptions Used in study	Projections With High-Growth Assumptions
1980	392	392	392
1981	368	368	368
1982	352	352	352
1983	341	341	341
1984	373	426	426
1985	386	401	416 "
1986	400	419	456
1987	401	486	567
1988	435	476	613
1989	446	487	657
1990	464	524	725
1991	482	593	882
1992	464	621	977
1993	466	6 7 1	1090
1994	471	724	1209
1995	472	793	1333
1996	468	885	1485
1997	465	1025	1816
1998	462	1133	2118
1999	462 -	1311	2626
2000	461	1284	2771
2001	459	?279	2762
2002	458	1274	2751
2003	456	1270	2742
2004	455	1266	2733
2005	454	1262	2725
2006	453	1259	2717
2007	452	1255	2709
2008	450	1252	2701
2009	449	1248	2694
2010	448	1245	2686

SOURCE :   Variable EMRETO, study case DSET N.89MBC, low and high case
DSETs UN.89LBC and UN.89HBC.

peaks in 1999 and declines thereafter due to declining government spending. Finally, we assumed substantial resident OCS employment after 1997, associated with the production stage of Navarin Basin OCS development.

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As shown in Table 11-10, our projections for base case resident employment are highly sensitive to our exogenous employment assumptions. In the low case, peak resident employment in 1995 would be only about 20 percent higher than in 1980,. Again, we emphasize that our "medium" projections represent only one possible growth path for Unalaska, and that actual employment could be much lower or higher than in our medium case.

Our Sale 92 medium base case projections differ only slightly from our Sale 89 medium base case projections. Resident population is slightly higher for the years 1986-1990 due to slightly higher assumed levels of OCS resident employment during exploration for Sale 89 (Table O-40).

OCS Impact Projections

We prepared three sets of impact projections. These are for OCS Sale 88, for OCS Sale 92, and for Sales 89 and 92 combined. Appendix O includes tables of projections for each of these three cases as well as three sets of tables comparing these impact cases with their respective base cases.

Table II-11 summarizes these impact projections for selected variables. In general, the projected impacts of Sales 88 and 92 are relatively small in percentage terms. The projected maximum impacts of Sale 89 are a little less than half as great as those of Sale 92. The projected maximum impacts of both sales combined are about 15 percent of base case-levels of population and employment.

For example, both sales together are projected to increase the total population of Unalaska by a maximum, of 348 in 1993. This would represent a 14.5 percent increase in total population in that year.

Table 11-12 shows the projected effects of the combined sales on total population for the entire projection period. Impacts begin in 1986 and peak in 1993. Table 11-13 shows the impacts on resident population. After 1994, resident workers associated with the production phase of OCS development account for most of the impacts on total population. Prior to 1994, nonresident -enclave workers associated with the construction phase account for most of the impacts.

In general, the impact projections show a similar pattern for other variables. The projected impacts are smaller for either of the two sales alone than for the combined sales.

The relative magnitude of projected impacts depends on the base case as well as the impact cases. As shown in Table II-14, absolute

TABLE 11-11
SUMMARY OF PROJECTED IMPACTS OF OCS SALES ON UNALASKA

	Maximum Absolute Impact	% Impact In Year of Maximum Absolute Impact	Year of Maximum Absolute Impact
Sale 88			
Total Population (Including Enclaves)	117	4.9	1993
Resident Population	55	4.1	1994
School-age Population	12	4.0	1994
Total Resident Employment	34	4.7	1994
Support Employment	11	4.1	1993
Civilian Government Employment	6	4.0	1994
Sale 92			
Total Population (Including Enclaves)	236	9.8	1993
Resident Population	141	11.5	1993
School-age Population	32	11.1	1993
Total Resident Employment	88	13.1	1993
Support Employment	28	10.9	1993
Civilian Government Employment	17	11.0	1993
Sales 89 and 92 Combined			
Total Population (Including Enclaves)	348	14.5	1993
Resident Population	178	14.5	1993
School-age Population	41	14.1	1993
Total Resident Employment	111	16.6	1993
Support Employment	38	14.7	1993
Civilian Government Employment	21	14.0	1993

SOURCE: RAM Model Projections given in Appendix O.

TABLE 11-12
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA TOTAL POPULATION
SALES 89 AND 92 COMBINED IMPACT CASES

	8ase Case	Impact Case	Difference	Percent Difference
1980	1832	1832	0	0.00
1981	1296	1296	0	0.00
1982	898	898	0	0.00
1983	818	818	" 0	0.00
1984	1097	1097	0	0.00
1985	1079	1079	0	0.00
1986	1177	1297	119	10.15
·1987	1477	1501	24	1.64
1988	1413	1448	35	2.50 · .
1989	1506	1531	31	2.04
1990	1679	1786	107	6.35
1991	1953	2033	80	4.07
1992	2158	2418	260	12.06
1993	2396	2744	348	14.52
1994	2639	2830	191	7.24
1995	2982	3160	179	5.99
1996	3314	3472	158	4.76
1997	3737	3894	157	4.20
1998	3924	4080	156	3.98
1999	4117	4273	156	3.80
2000	4011	4168	156	3.89
2001	4009	4164	156	3.88
2002	4005	4160	155	3.86
2003	4003	4157	155	3.86
2004	4002	4155	154	3.85
2005	4000	4154	154	3.84
2006	3999	4152	153	3.82
2007	3998	4151	153	3.82
2008	3997	4149	152	3.80
2009	3997	4148	152	3.79
2010	3996	4147	151	3.77

Variable: POTO

SOURCE : DSETs UN.89MBC--created 12/2/83 and UN.COMIC--
created 12/2/83

TA8LE II-13
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA RESIDENT POPULATION
SALES 89 AND 92 COMBINED

	Base Case	Impact Case	Difference	Percent Difference
1980	724	724	724	0.00
1981	687	687	0	0.00
1982	665	665	0	0.00
1983	652	652	0	0.00
1984	791	791	0	0.00
1985	756	756	0	0.00
1986	788	845	57	7.25
1987	901	910	10	1.08
1988	888	902	13	1.51 "
1989	910	923	13	1.42
1990	974	1011	37	3.80
1991	1089	1117	28	2.55
1992	1139	1280	141	12.40
1993	?223	1401	178	14.54
1994	1313	1478	165	12.55
1995	1427	1586	159	11.12
1996	1579	1737	157	9.97
1997	1808	1964	156	8.65
1998	1985	2141	'156	7.84
1999	2275	2431	156	6.86
2000	2235	2392	156	6.98
2001	2233	2388	156	6.97
2002	2229	2384	155	6.93
2003	2227	2381	155	6.94
2004	2226	237'3	154	6.91
2005	2224	2378	154	6.90
2006	2223	2376	153	6.88
2007	2222	2375	153	6.87
2008	2221	2373	152	6.84
2009	2221	2372	152	6.82
2010	2220	2371	151	6.79

Variable: PO
Source: DSETs UN.89MBC--created 12/2/83 and UN.COMIC--
         created 12/2/83

TABLE 11-14
COMPARISON OF PROJECTED 1993 IMPACTS OF OCS SALES
ON UNALASKA WITH DIFFERENT BASE CASE ASSUMPTIONS

	Total Population Including Enclaves	Resident Population	Resident Employment
Sale 89 Low Base Case	1,426	894	466
Sale 89 Medium Base Case	"2,396	1,223	671
Sale 89 High Base Case	3,636	1,895	1,090
Combined Impacts of Sales 89 and 92[a]	348	178	111
Combined Impacts as Percentage of Sale 89 Low Base Case	24	20	24
Combined Impacts as Percentage of Sale 89 Medium Base Case	15	15	17
Combined Impacts as Percentage of Sale 89 High Base Case	10	9	'10

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[a]The impact projections used Sale 89 medium base case assumptions for non-OCS assumptions. They might have differed slightly had the low or high base cases been used for non-OCS assumptions.

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projected impacts are as high as 24 percent if we use the Sale 89 medium base case. Nevertheless, the projected impacts of the two sales on population and employment in Unalaska remain relatively low.

Our relatively low impact projections for these two sales result directly from our assumptions. As we showed in Table II-6, we assumed that no offshore workers would live in or be based in Unalaska and that all short-term skilled onshore jobs would be held by nonlocal residents who would live in enclaves. Only long-term onshore workers would become residents of Unalaska. Given that the peak assumed increase in onshore long-term OCS employment for the combined sales is only 56, we would expect the sales to result in only a relatively small increase in total population and employment, which is what the model projected.

In sum, under the assumptions provided us by the OCS office, Unalaska would be a support base for exploration, development, and production activities associated with OCS Sales 89 and 92. Substantial numbers of OCS-related personnel would already be based in Unalaska as a result of Navarin Basin development and production activities. Our model projections suggest that the additional personnel associated with Sales 89 and 92 would have a relatively small effect on Unalaska.

111.   COLD BAY

In this chapter, we briefly describe the history, population, and economy of Cold Bay. We then discuss the assumptions which we use for our RAM model projections for the community. Next, we present low, medium, and high base case projections of the population and economy of Cold Bay in the absence of development from the St. George Basin and North Aleutian Shelf lease sales. Finally, we present projections of population and employment if development occurs in these two lease areas, and we discuss the projected impacts of the sales.

Our description of Cold Bay in this chapter is intended to provide a brief introduction to the community as well as a starting point" for our projections. We refer readers desiring a more detailed description of Cold Bay to Social and Economic Studies Program Technical Report Number 93, prepared by Impact Assessment, Inc., entitled "Cold Bay: Ethnographic Study and Impact Analysis" (Petterson et al., 1983a). This study includes a detailed discussion of many aspects of the community of Cold Bay, including its history, infrastructure, population, and economy. We have based our description of the community primarily upon this study.

History

Cold Bay lies near the western tip of the **Alaska** Peninsula approximately 630 air miles from Anchorage. Although there are indications that **Aleuts** once lived in the area, the fate of these **early** inhabitants is unknown. Russians ventured into the territory in the 18th and 19th centuries. **Izembek** Lagoon, just north of **Cold** Bay, was named in honor of Karl **Izembek,** a surgeon in the **Peter Krenitzin** party which wintered near Cold Bay in 1768. Trappers and subsistence hunters visited the area, but little about the Cold **Bay** region is recorded in history **until World War** II.

In January 1942, the U.S. Army established Fort Randall at Cold Bay. Fort Randall was one of a series of military bases established in Alaska by the United States **during** World War **II.** After Japan attacked Dutch Harbor and occupied the outer Aleutian Islands of Attu and **Kiska,** the U.S. military launched a massive buildup in the region. At the peak of its activity, Fort Randall reportedly housed 40,000 troops. The base was abandoned at the close of the war, but the airstrip was maintained by the army through the early 1950s. Later the airstrip was transferred to Reeve Aleutian Airways, then to the Federal Aviation Administration, and most recently to the **Alaska** Department **of** Transportation and Public Facilities.

A Distant Early Warning **(DEW)** line station was established in 1958 at nearby Grant Point, and today Grant Point Air Force **Base** operates from this post. A large area bordering the northern edge of Cold

Bay is the **Izembek** National Wildlife Refuge, created in **1960** by a
Public Land Order.   The U.S. Fish and **Wildlife** Service manages the
refuge.   In 1960,   Flying Tigers, Inc.,   a private air freight
company, leased land adjacent to the airstrip at Cold Bay and **built**
facilities there.   Flying Tigers, **Inc.,** continues to operate the
only retail 'facilities in Cold Bay, although their aircraft use the
Cold Bay airport only rarely.

During 'the 1960s while the war in Southeast Asia was taking place,
Cold Bay was a refueling and servicing stop for aircraft enroute to
the Aleutians and the Orient.   Airport activity decreased in the
1970s as U.S. involvement in the war was reduced and as aircraft
capable of flying nonstop to the Orient were introduced.

During its relatively short history, Cold Bay has been a
transportation and communications center for the **Aleutian/Pribilof**
Islands region.   It remains today a unique community comprised of a
transient population focused on the operation and maintenance of the
airport and its related services.

<u>Population</u>

Table III-1 presents information on the population of Cold Bay from
the 1970 and 1980 U.S. Censuses.   Cold Bay had a total population of
228 in 1980, a decrease of 10.9 percent from 1970.   This decrease
was due, primarily, to the decline in activity of the Cold Bay
airport during the Vietnam war years.   The **1980** census figure of 228
is very close to the field estimate of 226 reported in Petterson

TABLE III-1:
COLD BAY POPULATION, 1980 AND 1970

AGE

	0-4	5-14	15-19	20-34	35-64	65+	Total
1980							
Total	18	19	17	94	79	1	228
Male	7	9	11	64	55	1	147
Female	11	10	6	30	24	0	81
Native	1	1	1	4	3	0	10
Male	0	0	1	3	2	0	6
Female	1	1	0	1	1	0	4
Non-Native	17	18	16	90	76	1	218
Male	7	9	10	61 .	53	1	141
Female	10	9	" 6	29	23	0	77
1970							
Total	18	30	12	121	75	0	256
Male	8	18	8	105	54	0	193
Female	10	12	4	16	21	O	63
Native[a]	5	4	10		7	0	26
Male	1	3	5		5	0	14
Female	4	1	5		2	0	12
Non-Native	13	26	" 123		- 68	0	230
Male	7	15	108		49	0	179
Female	6 . 1 1		15		19	-o	51

aThe 1970 Native age/sex breakdown is an estimate based on two
sources: (1) the Census Bureau's age/sex breakdown of "Other Races,"
excluding the Black and White races; and (2) ISER's census-based pub-
lication (Alaska Review of Business and Economic Conditions, September
1973) giving total number of males and females of the Aleut, Eskimo,
and Indian races.

SOURCES:

U.S. Census for 1960, 1970, 1980.

Institute of Social and Economic Research. "Age and Race by Sex
Characteristics of Alaska's Village Population." Alaska Review
of Business and Economic Conditions (September 1973).

et al. (1983, p. 63). In this study, we assume that the 1982 population was the same as that reported by the-census for 1980.

Cold Bay has a high proportion of adults. In 1980, 76.3 percent of the population were over 20 years old. Virtually all of these were less than 65 years old. 'Thus, we find a relatively large labor force at Cold Bay.

The proportion of children (persons less than 15 years of age) decreased slightly between the two target years. Children accounted for 18.8 percent of the population in 1970, while they comprised 16.2 percent in 1980. The proportion of youths aged 15 to 19 years increased from 4.7 percent to 7.5 percent between 1970 and 1980.

The Native population comprised 10.2 percent of the population in 1970. 8y 1980, the proportion of the total population that was Native decreased to 4.4 percent.

In 1980, over three-quarters of the population were between the ages of 20 and 65. Over two-thirds of the adult population was male. Less than 5 percent of the population of Cold Bay was Native. According to Petterson et al., the small Native population is "essentially assimilated to Euro-American culture, so that effectively, from a cultural standpoint, there is no Native population in Gold Flay" (page 64).

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The population of Cold Bay is essentially transient. According to

Petterson:

> An individual migrates to the town, remains there with only
> short absences for two to five years, [and] then leaves
> town. . . .   This pattern of immigration, residence,
> emigration is a **result** of the fact that the town **is**
> dominated by outside employers, particularly large
> governmental agencies and private transportation and
> communications corporations. **Most** of these companies and
> agencies . . . send **people** to Cold Bay for a specific tour
> of duty, and very few of these people ultimately become
> permanent residents, preferring rather to leave at the end
> of their tour than **to** stay.. . .

Our **RAM** model population projections' for **Cold** Bay are based upon the

assumption that the population remains transient.

<u>Employment</u>

Table III-2 presents estimates of employment in Cold Bay in 1982

developed by Petterson et al.   Total employment was 154, of which

41 percent were government employees.   The Federal **Aviation**

Administration and the U.S. Air Force accounted for half of

government employment.   Of the **91** employees of private firms, over

four-fifths worked for Reeve Aleutian Airways, RCA, Flying Tiger

Lines, or Peninsula Airlines.   Of the eight other private businesses

in Cold Bay, none had more than five employees.

A particularly important aspect of employment in Cold Bay is that

very little of it is endogenous, or generated locally to provide

services to residents of Cold Bay.   Endogenous government employment

TABLE III-2.
COLD BAY LABOR FORCE BY SECTOR: 1982

Industry	Total Employees		Percent of Total Labor Force	
Government	63		40.9	
Federal	43		27.9	
Federal Aviation Admin.		16		10.4
National Weather Service		"5		3.2
Fish & Wildlife Service		4		2.6
U.S. Post Office		2		1.3
Federal Military (USAF)		16		10.4
State	19		12.3	
Dept. of Transportation		6		3.9
Dept. of Fish & Game		7		4.5
R.E.A.A. (School System)		5		3.2
Magistrate		1		0.7
Municipal	1		0.7	
Clerk		1		0.7
Private Employers	91		59.1	
Transportation	34		22.1	
Reeve Aleutian Airways		22		14.3
Peninsula Airlines		10		6.5
Cold Bay Truck Rental		2		1.3
Communications	31		20.1	
R.C.A.		28		18.2
Alascom		2		1.3
Interior Telephone Co.		1		0.7
Service	18		11.7	
Flying Tigers Lines		16		10.4
Northern Power Co.		2		1.3
Manufacturing/Processing	6		3.9	
Northern Peninsula Fisheries		5		3.2
Seawest		1		0.7
Construction	2		1.3	
Well Digger		1		0.7
Laborer		1		0.7
TOTAL	154		100.0	

SOURCE: John S. Petterson, et al., Cold Bay: Ethnographic Study and Impact Analysis, Social and Economic Studies Program, Technical Report Number 93 (Anchorage, Minerals Management Service, Alaska OCS Office, August 1983), p. 88.

would include one Postal Service employee, the five school system employees, the magistrate, the municipal clerk, and perhaps one Department of Transportation employee for a total of nine jobs. Endogenous private employment would include perhaps eight of the employees of Flying Tiger Lines, the two Cold Bay truck rental employees, one Interior telephone company employee, one Northern. Power Company employee, one well digger, and one laborer for a total of 14 jobs. In total, these 23 jobs represent only 15 percent of total employment. Thus, most of the economy of Cold Bay is based on providing transportation, communication, or government services to markets external to Cold Bay. These activities generate very little additional employment within Cold 8ay.

Assumptions for RAM Model Projections

A large number of assumptions are required in order to run the RAM model. We document our Cold Bay RAM model assumptions fully in Appendixes L and N. In this section, we briefly review these assumptions.

We prepared seven different sets of projections, or "cases" for Cold Bay. These include four sets of "base case" projections, and three sets of "impact projections." Our standard base case is the "Sale 89 Medium Base Case." This case includes what we consider to be the most likely assumptions for non-OCS related employment, as well as the pre-Sale 89 OCS employment assumptions which we have been instructed to use by the Alaska OCS office.

In order to examine the sensitivity of this standard base case to
our employment assumptions, we prepared the "Sale 89 Low Base Case"
and the "Sale 89 High Base Case." For the Sale 89 Low Ease Case we
assumed lower levels of non-OCS exogenous employment, as well as no
OCS-related employment. Therefore, the low case suggests a lower
bound for future population and employment in Cold Bay. In
contrast, for the Sale 89 High Base Case, we assumed relatively high
levels of non-OCS employment (no decline from current levels in
existing industries, as well as an expansion of fish processing
employment}, together with the Medium Case OCS employment
assumptions. This case therefore suggests an upper bound for future
population and employment in Cold Bay, in the absence of OCS Sales
89 or 92. .

For the Sale 92 Medium Base Case, we assumed exploration but no
development of the Sale 89 lease area. THus we assume identical
levels of non-OCS employment as for the Sale 89 Medium Base Case,
but we assumed slightly higher levels of OCS employment to account
for exploration-only employment from Sale 89.

We prepared three impact case projections: the "Sale 89 Impact
Case," the "Sale 92 Impact Case," and the "Sales 89 and 92 Combined
Impact Case." For our Sale 89 Impact Case, we added employment
assumptions provided by the OCS office for development of the Sale
89 lease area to the Sale 89 Medium 8ase Case OCS employment
assumptions. For the Sale 92 Impact Case, we added OCS employment

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assumptions for Sale 92 to the Sale 92 Medium Base Case OCS employment assumptions. Finally, for the Sale 89 and 92 Combined Impact cases, we added OCS employment assumptions for both sales to the Sale 89 Medium Base Case OCS employment assumptions. The projected impacts of the individual and the combined sales were the differences between the impact case projections and the corresponding base case projections.

Table 111-3 summarizes our RAM model assumptions for these seven cases. For all of the impact cases, the non-OCS employment assumptions are the "Medium Case" assumptions. These assumptions are based for the most part on the study by Petterson et al, and are documented in Appendix L. Our OCS employment assumptions were provided by the Minerals Management Service and are discussed in detail in Appendix N.

Because of the transient nature of the population of Cold Bay, we assume that the age-sex-race distribution of the population remains constant. " For our RAM model projections, we assume that most of the population leaves every year, to be replaced by people with similar characteristics to those of the population in 1982. As a result, the population does not age over time.

We assumed declines in exogenous support and government employment based on the discussion of the primary (base case) scenario in Petterson et al. (pages 125-135). According to this scenario,

TABLE III-3: SUMMARY OF RAM MODEL ASSUMPTIOMS
FOR COLD BAY PROJECTIONS

Population Assumptions

1982 population	228
Age, sex,race breakdown of population	Based on 1980 census; constant age-sex-race distribution.

Non-OCS Employment Assumptions

1982 resident employment	154
Basic employment	6
Support employment	85
Government employment	63
Exogenous basic employment	Remains constant at 6 in low and medium cases; increases steadily due to increases in fish processing in high case.
Exogenous support employment	Decreases from 71 to 40 in low case; decreases to 50 in medium case; remains constant at 71 in high case
Exogenous government employment	Decreases from 54 to 31 in low case, decreases to 35 in medium case; remains constant at 54 in high case
Endogenous support employment	Increases by 1 for every $217 thousand increase in resident income.
Endogenous government employment	Increases by 1 for every increase of 25 in population. With future cuts in government revenues, response to increase in population declines.

TABLE III-3:   SUMMARY OF RAM MODEL ASSUMPTIONS
  FOR COLD BAY PROJECTIONS (continued)

OCS enclave-generated support
  employment   Increases by 1 for every
                                             increase of 20 in the OCS
                                             enclave population.

OCS Employment Assumptions

All offshore workers assumed to be commuters who only pass through
    Cold Bay.
All short-term onshore workers assumed to be enclave residents.
All long-term onshore workers assumed to be residents of Cold Bay

	First year of resident employment	Peak resident employment
Sale 89 Low Base Case		none
Sale 89 Medium and High Base Cases	1996	32
Sale 92 Medium Base Case	1996	36
Sale 89 Impact Case	1994	56
Sale 92 Impact Case	1992	51
Sales 89 and 92 Combined Impact Case	1992	75

> The immediate outlook for the Cold Bay economic structure
> appears bleak . . . . Currently the employment picture is
> dominated by communications, transportation, and govern-
> ment. The next decade **will** see a severe contraction of
> both communications and government as employers. . . . The
> Federal Aviation Administration has continuing plans for
> retrenchment of its Cold Bay personnel . . . . Within
> seven years, plans call for a reduction of the FAA
> personnel from 16 to 2 . . . . Remoting will **also** be the
> cause of major reductions in the number of personnel
> employed at the Air Force Base. **Within** two years it is
> projected that there will be no military personnel at the
> base, a reduction of 16 to 0 by 1985 . . . . RCA is (also)
> heavily implicated in the retrenchment occurring at the
> Air Force Base . . . . RCA plans to cut its work force
> from approximately 28 . . . **to** less **than** fifteen within
> **two** years. Between government, particularly federal, and
> communications, particularly RCA, cutbacks, . . . Cold **Bay**
> is confronted with massive employment reductions. From a
> total of 94 jobs in these two sectors, or over 60 percent
> of total employment, the end of the decade will see them
> accounting for approximately 38 jobs, a reduction of
> 60 percent. This will represent an overall reduction of
> employment in **Cold** Bay from a total of **154** in 1982 to
> approximately 98, a drop of more than one-third, from
> these two areas alone (pp. 125-132).

For our low case, we assumed that the cutbacks in exogenous
employment discussed by Petterson et **al.** would occur, and that
further cutbacks would continue for several years before exogenous
employment stabilized. For our medium case, we assumed that only
those cutbacks specifically mentioned by Petterson et al. would
occur. For our high case, we assumed that there would be no cutback
from current **levels** of employment, and that in addition employment
in fish processing would rise from the current **low** level of 6 to 62
by **2010.**

Me assumed that basic employment in Cold Bay generates relatively
little **endogenous** support employment, and that future Ocs

employment, whether from resident or enclave workers, would also generate relatively **little** new employment. Similarly, we assumed a low **level** of **endogenous** government employment, and **only small** increases in government employment as a result of future population increases.

We assumed that offshore **OCS** workers **will** only pass through the **Cold** Bay airport, and that no offshore workers will become residents of **Cold** Bay or live in enclaves at Cold Bay. Similarly, we assumed that **all** short-term onshore **OCS** workers will be based in enclaves, and that none of these workers **will** become residents of Cold Bay. In contrast, **we** assumed that all long-term onshore OCS workers will be residents of Cold Bay. However, like most other "residents" of Cold Bay, they **will** not be permanent residents, but rather personnel who are stationed in the community for relatively brief periods of only one or two years.

RAM Model Base Case Projections

Our complete base case projections are presented in Appendix P, Tables P—I--P-52. In this section, **we** review the most important aspects of these projections.

Tables III-4 and **III-5** summarize our Sale 89 medium base case projections. In the base case, the resident **populaton** of Cold Bay declines steadily from 225 in 1981 to 156 in 1994 (Table 111-4). This decline is due to the erosion of exogenous government and

TABLE III-4
RURAL ALASKA MODEL PROJECTIONS
COLD 8AY
SALE 89 MEDIUM BASE CASE

	Resident Population	Non-Project Enclave Population	Project Enclave Population	Military Enclave Population	Total Population Including Enclaves and Military
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	2 9 5
1985'	186	0	76	0	262
1986	184	0	114	0	298
1987	178	0	118	0	296
1988	168	0	50	0	218
1989	161	0	10	0	171
1990	159	0	10	0	169
1991	159	0	10	0	169
1992	157	0	10	0	167
1993	157	0	10	0	167
1994	156	0	10	0	166
1995	156	0	10	0	166
1996	164	0	10	0	174
1997	184	0	40	0	224
1998	206	0	50	0	256
1999	214	0	40	0	254
2000	211	0	0	0	211
2001	210	0	0	0	210
2002	210	0	0	0	210
2003	210	0	0	0	210
2004	210	0	0	0	210
2005	210	0	0	0	210
2006	210	0	0	0	210
2007	210	0	0	0	210
2008	209	0	0	0	209
2009	209	0	0	0	209
2010	209	0	0	0	209

SOURCE: Variables PO, EMENNOPJ, EMENPJ, POML, and POTO. DSET CB.89MBC--created 11/16/83

TABLE 111-5
RURAL ALASKA MODEL PROJECTIONS
COLD (3AY
SALE 89 MEDIUM BASE CASE

	Total Resident Employment	Resident Basic Employment	Resident Support Employment	Resident Government Employment	Resident Project Employment
1981	153	6	85	62	-0
1982	154	6	85	63	- -0
1983	34	6	74	54	-o
1984	34	6	77	51	-o
1985	26	6	73	47	-o
1986	25	6	73	46	-o
1987	21	6	71	44	-0
1988	14	6	65	43	" -o
1989	09	6	61	42	-o
1990	108	6	60	42	-o
1991	108	6	60	42	-o
1992	107	6	60	41	-o
1993	106	6	60	40	-o
1994	106	6	60	40	-o
1995	106	6	60	40	-o
1996	11	6	61	40	5
1997	25	6	64	40	15
1998	40	6	66	41	27
1999	45	6	67	41	32
2000	43	6	64	41	32
2001	43	6	64	40	32
2002	43	6	6 4	40	32
2003	143	6	64	40	32
2004	143	6	64	40	32
2005	143	6	64	40	32
2006	142	6	64	40	32
2 0 0 7	142	6	64	40	32
2008	142	6	64	40	32
2009	142	6	64	40	32
2010	142	6	64	40	32

SOURCE: Variables EMRETO, EMBA, EMSU, EMGO, and EMREPJ. DSET
CB.89MBC--created 11/16/83

support sector employment. As shown in Table 111-5, resident support employment declines from 85 in 1981 to 60 in 1990, and resident government employment declines from 62 in 1981 to 40 in 1993.

After 1995, resident population begins to rise again, stabilizing at 210 after 2001. This increase is due to an increase in OCS or "project" employment, which begins in 1996 and stabilizes at 32 after 1"999.

Similarly, a considerable number of OCS-employees are based at enclaves in or near Cold Bay over the period 1984-1999. These are onshore short-term employees involved in support or construction activities during the exploration and development phase of the . assumed development of the Navarin Basin Sale 83 lease area and exploration of the St. George Basin Sale 70 lease area (resident OCS employment in subsequent years is associated with the production phase of the Navarin Basin development).

As shown in these two summary tables, in the absence of Sales 89 or 92, Cold Bay is likely to undergo a significant contraction in resident population over the next decade due to contraction in traditional FAA, military, and communications activities. However, development of the Navarin Basin might lead to the enclave-type basing of a substantial number of OCS-related employees in the area

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during this period, in particular during the years 1984-1987.
Subsequently, about 30 OCS-related employees might become residents
of the area, helping to bring the resident population back to about
its current level.

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We may contrast our medium case projections with our low and high
case projections (See Appendix P, Tables P-14--P-39 for the low and
high case projections). In the low case, resident employment
declines from 154 in 1982 to 88 in 2000, due to continuing cutbacks
in exogenous employment beyond those assumed by Petterson et al.
This results in a decline in resident population from 226 to 130.

In contrast, in the high case, resident employment increases from
154 to 251 over the projection period, as no cutbacks take place in
support or government employment, employment in fish processing
increases to over 60, and OCS development occurs in the Navarin
basin. The increase in employment results in an increase in
resident population from 225 to 370. Thus, while our base case
projection for resident population at the end of the projection
period is about 210, in the low case the population would be only a
little over half as great, while in the high case the population
would be nearly twice as great.

In the Sale 92 Medium Base Case (see Appendix P, Tables P-40--P-52),
the resident population of Cold Bay would be the same as for the
Sale 89 Medium Base Case. However, the enclave population in the

short term would be somewhat higher, peaking at 137 instead of 114, due to additional employment associated with exploration in the Sale 89 lease area.

<div align="center">RAM Model <u>**Impact** Projections</u></div>

Our complete impact projections are shown in Appendix" P, Tables P-53--P-91. In this section, we briefly summarize these projections.

Tables" **III-6,** III-7 and III-8 show the projected effects of development of the OCS Sale 89 lease area upon total population, resident population and resident employment in Cold Bay. As shown in Table **III-6,** Sale 89 increases **total** population by a maximum **of** 91 in 1993.   However, almost **all** of the projected impact on total population prior to **1994** is due **to** additional enclave employment based in Cold Bay, beginning in 1986. After **1994,** the impacts of Sale 89 are felt mostly as increased resident " population due to the basing of additional long-term onshore OCS employees in Cold Bay. These employees increase the population after 1994 by 43, or about 20 percent, to a level approximately 20 persons greater, than the current population level.   Resident employment increases by a maximum of 29, or about 20 percent.   **Almost** all of this is OCS employment (government employment increases by only **1** and support employment increases by a maximum of **5).**

<div align="center">III-19</div>

TABLE III-6
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY TOTAL POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	Base Case	Impact Case	Difference	Percent Difference
1981	225	225	0	0.00
1982	226	226	0	0.00
1983	197	197	0	0.00
1984	295	295	0	0.00
1985	262	262	0	0.00
1986	298	325	27	9.14
1987	296	305	9	2.94
1988	218	234	16	7.48
1989	171	183	12	7.01
1990	169	198	29	17.38
1991	169	197	22	12.89
1992	167	228	61	36.35
1993	167	258	91	54.72
1994	166	226	59	35.72
1995	166	223	57	34.46
1996	174	217	43	24.52
1997	224	267	43	19.01
1998	256	299	43	16.62
1999	254	297	43	16.75
2000	211	253	43	20.20
2001	210	253	43	20.20
2002	210	253	42	20.20
2003	210	253	4 2	20.20
2004	210	252	42	20020
2005	210	252	42	20.20
2006	210	252	42	20.20
2007	210	252	42	20.20
2008	209	252	42	20.20
2009	209	252	42	20.20
2010	209	252	42	20.20

Variable: POTO

SOURCE: DSETs CB.89MBC--created 11/17/83 and CB.891IC--created 11/17/83

TABLE III-7
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY RESIDENT POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	Base Case	Impact Case	Difference	Percent Difference
1981	225	225	0	0.00
1982	226	226	0	0.00
1983	197	197	0	0.00
1984	198	198	0	0.00
1985	186	186	0	0.00
1986	184	186	2	1.21
1987	178	179	1	0.39
1988	168	169	1	0.78
1989	161	162	1	0.60
1990	159	161	2	1.48
1991	159	161	2	1.11
1992	157	162	5	3.05
1993	157	164	7	4.61
1994	156	191	34	22.03
1995	156	190.	34	21.91
1996	164	207	43	26.01
1997	184	227	43	23.73
1998	206	249	43	20.65
1999	214	257	43	19.88
2000	211	253	43	20.20
2001	210	253	43	20.20
2002	210	253	42	20.20
2003	210	253	4 2	20.20
2004	210	252	42	20.20
2005	210	252	42	20.20
2006	210	252	42	20.20
2007	210	252	42	20.20
2008	209	252	42	20.20
2009	209	252	42	20.20
2010	209	252	42	20.20

Variable: PO

SOURCE: DSETs CB.89MBC--created 11/17/83 and CB.89IIC-- created 11/17/83

TABLE III-8
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY RESIDEFIT EMPLOYMENT
COMPARISON OF SALE 89 EASE AND IMPACT CASES

	Base Case	Impact Case	Difference	Percent Difference
1981	153	153	0	0.00
1982	154	154	0	0.00
1983	134	134	0	0.00
1984	134	134	0	0.00
1985	126	126	0	0.00
1986	125	126	1	1.20
1987	121	121	0	0.39
1988	114	115	1	0.78
1989	109	110	1	0.60
1990	108	110	2	1.48
1991	108	109	1	1.10
1992	107	110	3	3.07
1993	106	111	5	4.62
1994	106	130	23	22.00
1995	106	129	23	21.90
1996	111	140	29	26.01
1997	125	154	29	23.14
1998	140	169	29	20.65
1999	145	174	29	19.88
2000	143	172	29	20.20
2001	143	172	29	20.20
2002	143	172	29	20.20
2003	143	172	29	20.20
2004	143	171	29	20.20
2005	143	171	29	20.20
2006	142	171	29	20.20
2007	142	171	29	20.20
2008	142	171	29	20.20
2009	142	171	29	20.20
2010	142	171	29	20.20

Variable: EMRETO

SOURCE: DSETS CB.89MBC--created 11/17/83 and CB.891IC--
          created 11/17/83

The projected impacts of Sale 92 alone are somewhat smaller, increasing resident population and employment by only about 15 percent (see Appendix P, Tables P-53--P-65 and **P-98--P-103).**

In the combined impact case, which assumes development of both the **Sale** 89 and the Sale 92 lease areas (See Appendix P, Tables P-79-- P-91 for these projections), the resident population of Cold Bay rises to 287 in the late 1990s, and enclave employment during **the 1990's is** as high as 190. The projected impacts in this case are the sum of those for Sale 89 and Sale 92 alone, or approximately double the impacts of only one of the sales. The combined sales would increase the resident population of Cold Bay by approximately 30 percent.

Conclusions

Cold Bay differs from most other communities which have been studied under the Social and Economic Studies Program in that it is primarily a transient community, with very few residents who might be considered "permanent." In the absence of OCS development, the community will probably decline to a population about two-thirds of its current level due to future cutbacks in employment by the FAA, the U.S. Air Force, and RCA.

OCS development in the Bering Sea may partially reverse this decline or even cause "Cold Bay to increase in size, but this increase is not likely to be dramatic. With development of the **Navarin** Basin, the

resident population of the community might be expected to fall from about 225 to about 170, and then rise gradually to about 210 by the **late 1990s.** In addition, as many as **115** enclave employees might be based in Cold **Bay** during the mid 1980s during the exploration and **development** of the **Navarin Basin.**

If development of either Sale 89 **(the** St. George Basin) or Sale 92 (the North Aleutian Shelf) occurs as well, OCS-related employment and population would be somewhat higher. Enclave employment might be as high as 140 during the mid 1980s and the resident population of Cold Bay might rise to about 250 by the **late** 1990s.

By themselves, development from either of these **sales is** unlikely to result in drastic changes in either **the** size or the character of Cold 8ay. The assumed development of the Navarin Basin would have a more significant effect, in that it would reverse the decline of the community. With development from Sale 89 or 92 the community would still be only slightly larger than it is at present--approximately the same size as during the Vietnam War period.

A more significant effect of OCS development upon the community might be the introduction of a different kind of employment and different kinds of workers than have previously resided in Cold Bay, as suggested by Petterson et al.:

Economic class distinctions will begin to emerge in Cold
Bay gradually over the next decade if oil-related
development occurs. THe major developments will begin
following the onset of **oprations** at the facilities because
it is then that certain elements of the oil-related work
force will establish residence in Cold Bay. With the
growth in population, the arrival of both a managerial and
a laboring **class,** and the expansion of available local
social settings such as restaurants and bars public
behavior **will** begin to sort by economic class . . . . This
will not result in a pervasive and rigid system of
economic class distinctions, but will be a gradual
tendency throughout the forecast period (page 163).

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History

Sand Point is located on Popof Island, one of the **Shumagin** Islands which are situated near the southern coast of the Alaska Peninsula. Sand Point is 570 air miles southwest of Anchorage. The nearest population center is Kodiak, 350 air miles away.

The **Shumagin** Islands were named by **Vitus** Bering **for** one of his sailors, **Nikita Shumagin,** who died of scurvy and was buried in the area **in 1741.** Popof Island is believed to be named after Sila and Ivan Popof who traded and hunted furs on the island during 1762-63.

Aleuts were early residents of the region of present-day Sand Point, but the site was uninhabited when, in 1887, Lynde and **Hough,** a San Francisco fishing firm, established a station there. The complex consisted of a trading post, a salmon fishing station, and a supply post for cod fishing.

Fox farming and gold mining have influenced Sand Point's history. **In** 1888, Andrew **Grosvold,** a gold miner from **Nome,** bought fox farms and later acquired the store. **Early** residents of Sand Point worked **mainly** for Mr. **Grosvold** on the fox farms and built and repaired dories for cod fishermen. The fox industry existed until the 1930s. Sand Point had a brief rendezvous with gold mining in 1904 and 1905 when 40 to 50 men worked the beaches.

Sand Point's dominant industry, though, has been and continues to be fishing and fish processing. During the 1930s, the Alaska Pacific Salmon Company established a salmon cannery two miles from Sand Point on the spit across Humbolt Harbor. New England Fisheries purchased this establishment about 1960. Aleutian Cold Storage bought Andrew Grosvold's holdings in 1947 and established a halibut plant in 1948.

In 1954, Wakefield Fisheries began processing king crab, leasing part of Aleutian Cold Storage facilities. Later, in 1966, Wakefield purchased Aleutian Cold Storage facilities and established a year-round king crab processing plant. The king crab industry flourished from 1954 into the early 1960s. In ?967, the catch of king crab declined dramatically, and the state established quotas on future catches. The quotas imposed may have cut Sand Point's king crab industry in half.

In 1969, Norton Simon bought controlling interest in Wakefield Fisheries "and the firm diversified into tanner crab and shrimp processing. Both species were significant elements in the seafood processing operations of the plant until the late 1970s. Currently the facilities are owned by Aleutian Cold Storage Company. The firm freezes king crab, tanner crab, halibut, and salmon, and has a canning line for crab and shrimp. This is the only seafood processing facility in Sand Point today.

Sand Point is home to a fishing fleet that harvests the surrounding waters for king crab, salmon, halibut, tanner crab, herring, and cod.

Population

Sand Point's population totaled 625 in 1980 according to the U.S. census (Table IV-I). Although the community has experienced significant growth over the past two decades, it grew more between 1970 and 1980 than it did between 1960 and 1970. In the latter decade, Sand Point had a 41.7 percent increase with an average annual growth rate of 3.5 percent. Between 1970 and 1980, it had an increase of 73.6 percent and an average annual growth rate of 5.8 percent.

Over the past decade, Sand Point has remained a town with a young population. Three-fourths of its population has been less than 35 years of age (72.8 percent in 1970 and 74.1 percent in 1980). It is within this major age category that shifts have occurred. In 1970, children (persons less than 15 years of age) accounted for 39.8 percent of the total population, while in 1980 they comprised a fourth (25.1 percent) of the population. The 15- to 19-year olds represented 8.1 percent of the population in 1970 and 12.6 percent in 1980. The proportion of young adults (20 to 34 years old) also grew in the past decade, from 25 percent of the population in 1970 to 36.3 percent in 1980.

TABLE IV-1.
SAND POINT POPULATION

AGE

	0-4	5-14	15-19	20-34	35-64	65+	Total
1980							
Total	57	100	79	227	148	14	625
Male	25	55	37	134	83	6	340
Female	32	45	42	93	65	8	285
Native	34	72	48	98	92	13	357
Male	15	39	20	60	50	5	189
Female	19	33	28	38	4	2 8	168
Non-Native	23	28	31	129	56	1	268
Male	10	16	17	74	33	1	151
Female	13	12	14	55	23	0	117
1970							
Total	56	87	29	90	90	8	360
Male	38	39	11	46	49	4	187
Female	18	48	18	44	41	4	173
Native[a]	48	74	82		52	4	260
Male	33	34	39		28	1	135
Female	15	40	43		24	3	125
Non-Native	8	13	37		38	4	100
Male	5	5	18		21	3	52
Female	3	8	19		17	1	48
1960 Total							254

aThe 1970 Native age/sex breakdown is an estimate based on two sources: (1) the Census Bureau's age/sex breakdown of "Other Races," excluding the Black and White races; and (2) ISER's census-based publication (Alaska Review of Business and Economic Conditions, September 1973) giving total number of males and females of the Aleut, Eskimo, and Indian races.

Sources:

U.S. Census for 1960, 19?0, 1980.

Institute of Social and Economic Research. "Age and Race by Sex Characteristics of Alaska's Village Population." Alaska Review of Business and Economic Conditions (September 1973).

Stability at the other end of the spectrum is evident from the figures also. Adults aged 35 to 64 accounted for 25.0 percent of the population in 1970 and 23.7 percent in 1980. Elders, 65 years of age or older, made up 2.2 percent of the population in 1970 and in 1980.

In analyzing the ethnic composition of Sand Point, we found that the proportion of Natives decreased significantly over the decade. In 1970, 72.2 percent of the population was Native, while in 1980, 57.1 percent was Native.

In the past ten years, Sand Point's proportion of males has increased from 51.9 percent in 1970 to 54.4 percent in 1980.

Employment

Our estimates of employment and income in Sand Point in 1980 are based on a number of data sources and a variety of different assumptions. We describe how we developed these estimates in Appendix F.

EMPLOYMENT BY SECTOR

Table IV-2 provides a breakdown of estimated full-time equivalent resident employment for Sand Point in 1980. Full-time equivalent (FTE) employment is a measure of total person-years of work. While FTE employment provides the best measure of work done over an entire year, actual employment at any time during the year may vary greatly from FTE employment.

IV-5

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TABLE IV-2.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN ST. PAUL, 1980

<u>Resident **Basic** Employment</u>	**<u>165</u>**
Harvesting	**107**
Fish Processing	**47**
Mining	**11**
<u>Resident Support Employment</u>	**<u>68</u>**
Exogenous	"11
Endogenous	35
Government-sponsored	21
Enclave-sponsored	1
<u>Resident Government Employment</u>	**<u>16</u>**
Exogenous	**2**
Endogenous	**14**
<u>**Total** Resident</u>	**<u>249</u>**
Total Exogenous	**178**
Total **Endogenous**	**71**
<u>Nonresident (Enclave) Employment</u>	54
<u>Total Resident and Nonresident</u>	303

IV-6

Our estimates suggest total resident FTE employment of 249 jobs. We may break these jobs down into three sectors: basic, support, and government.   Nonresident enclave employment totals FTE employment of 54 jobs.

Basic sector jobs are private sector jobs in the production of raw materials and manufactured goods including jobs in agriculture, forestry, fisheries, mining, and manufacturing.   We estimate that there were 165 FTE basic sector jobs in 1980, 65 percent of which were in fish harvesting, the remainder in fish processing and mining.   In total, basic sector jobs account for 66 percent of resident FTE employment.

Support sector jobs are nonbasic private-sector jobs.   We estimated 1980 FTE employment of 68 in support sector jobs, or 27 percent of total employment.   These jobs were in the school and clinic, in transportation services, and in other local services.

We estimated total government employment of 16 FTE jobs or 6 percent of total employment.   Eighty-eight percent of government jobs serve the local community.   There is no military employment in Sand Point.

EMPLOYMENT BY MARKET SERVED

Another way to view employment is in terms of the market that it serves.   Employment that provides goods or services to markets outside of a community is referred to as "exogenous," while

employment that provides goods or services to markets within a community is referred to as "endogenous."[1] This distinction is important for purposes of economic modeling and projections because exogenous employment is not directly affected by changes in the population or income of the community; whereas, endogenous employment is directly related to population and income. In general, the smaller a community, the larger a share of total employment which may be characterized as exogenous.

Of total FTE employment in Sand Point, 178 jobs, or 71 percent, were exogenous, while 71 jobs, or 29 percent, were endogenous. All 165 basic sector jobs may be considered exogenous. In addition, we estimated that 11 support sector jobs and 2 government jobs are exogenous. Exogenous support jobs are primarily in the transportation sector.

We estimated that there were 57 endogenous support jobs and 14 endogenous government jobs. Of the endogenous support jobs, we assumed that 36, or 63 percent, were generated by private spending and that the rest were generated by government spending.

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[1]Some authors use the term "basic" employment to refer to "exogenous" employment. This can cause confusion. In general, all basic employment is exogenous, but not all exogenous employment is basic (some government and support sector employment may also be characterized as exogenous}.

INCOME

We assume that total personal income in Sand Point is made up of both wage and nonwage income. We estimate an **annual** per capita level of $7,424 for wage income and $952 for nonwage income for a total per capita level of $8,376 or $5.24 million for the city.

Base Case Projections

PROJECTION METHODOLOGY

Based on our estimates of Sand Point's population and employment, we prepared projections of a number of variables describing the economy and population of Sand Point for the years 1981-2010. The projections were prepared using a model developed at ISER for studying rural Alaskan communities called the Rural Alaska Model (RAM). A detailed description of the model is provided in Knapp, The **Rural** Alaska **Model** (Anchorage: **ISER,** March 1983).

The Rural Alaska **Model** tracks population in six age cohorts for **male** and female Natives and non-Natives. It projects births, deaths, and migration for each group to determine total population. Migration is calculated as a function of the difference between the labor force and employment. Future levels of exogenous employment are assumed, while **endogenous** employment is calculated as a function of income and population.

The model's projections are the direct result of a variety of assumptions. The most important assumptions are summarized in Table IV-3. A complete list of the assumptions used and their documentation is provided as a set of worksheets in Appendix M.

PROJECTIONS

Table IV-4 presents a summary of all projections for the Kenai Market Area. Appendix P presents the complete set of projections. As shown in Table IV-4, population rises steadily to a high of 1,037 in 2010. Total employment rises to an initial high of 306 in 1991, drops some, and remains relatively stable until 1999 when it starts to rise again to a level of 324 in 2010.

Full-time equivalent employment as a percentage of the population falls from 40.5 percent to 31.2 percent over the 30-year projection period. Basic employment increases steadily from 166 to 191. Support employment increases to a peak of 110 in 1991, stabilizes between 99 and 104 until 2002 when it rises again to a high in 2010 of 115. Government employment rises from 16 to a high of 23 in 1988-1991 and then gradually declines to 17 by 1997 and holds that level through 2010. Project employment is assumed to remain zero throughout the projection period.

TABLE IV-3.
MAJOR ASSUMPTIONS USED IN
SAND POINT PROJECTIONS

<u>Resident</u>
<u>Basic</u>
<u>Employment</u>

Resident fish processing employment grows 1.5 percent per year. **We** assumed values for fishing and all other resident basic sector employment remain constant throughout the projection period.

<u>Exogenous</u>
<u>support</u>
<u>Employment</u>

Exogenous support employment remains constant.

<u>Exogenous</u>
<u>Government</u>
<u>Employment</u>

We assume exogenous government employment remains constant.

<u>Endogenous</u>
<u>Support</u>
<u>Employment</u>

Endogenous support employment rises by 1 for every $87,720 increase in income. This implies that in 1980, every new basic sector job generates **.201** new support jobs, every new support sector job generates .244 new support jobs, and every government job generates .197 new support jobs. We assume that wages rise at roughly **1** percent per year, which causes these multipliers to increase.

<u>Endogenous</u>
<u>Government</u>
<u>Employment</u>

Endogenous government employment rises by 1 for every increase in population of 45. Put differently, if population rises by 100 in **1980,** government employment rises by 2.2. However, due to declines in state and local government per capita revenues, by 2010 an increase of **100** in population results in only an increase of 1.42 in government employment.

<u>**Migration**</u>

If the ratio of working-aged population to available jobs declines by more than 5 percent from its 1980 level, new workers will move to Sand Point bringing dependents. If this ratio rises by more than 5 percent, some workers will leave, taking dependents with them. However, as a share of the population, relatively fewer Natives will leave than non-Natives.

TABLE IV-4.
RURAL ALASKA MODEL BASE CASE PROJECTIONS
SAND POINT

	Population	Total Resident Employment	Resident Basic Employment	Resident Support Employment	Resident Government Employment	Resident Project Employment
1981	640	259	166	77	16	0
1982	654	270	166	85	18	0
1983	668	263	167	78	18	0
1984	682	273	168 "	85	21	0
1985	695	267	169	78	21	0
1986	724	291	169	100	22	0
1987	737	289	170	98	21	0
1988	757	300	171	106	23	o
1989	769	300	1 7 2	106	23	0
1990	782	203	173	108	23	0
1991	797	306	173	110	23	0
1992	809	298	174	104	21	0
1993	821	297	175	102	20	0
1994	833	298	176	102	20	0
1995	845	296	177	100	18	0
1996	856	294	178	99	18	0
1997	868	296	179	100	17	0
1998	880	297	179	100	17	0
1999	892	300	180 ·	102	17	0
2000	904	302	181	103	17	0
2001	917	303	182	104	17	0
2002	927	305	183	105	17	0
2003	942	307	184	106	17	0
2004	955	310	185	107	17	0
2005	968	312	186	109	17	0
2006	981	314	187	110	17	0
2007	995	317	188	111	17	0
2008	1,009	319	189	113	17	0
2009	1,023	321	190	114	17	0
2010	1,037	324	191	115	17	0

SOURCE: Variables PO, EMRETO, EMBA, EMSU, EMGO, and EMREPJ.   DSET SD.BC.MD
Created September 19, 1983.

Table **P.1 is** used to show estimates of nonresident population in different categories. **Nonproject** enclave population increases steadily from 55 in **1981** to 73 in 2010. We did not estimate population for project and military enclave populations; hence, the values appear as zeros.

Table P.2 provides breakdowns of population among different groups. The share of Natives in the total population decreases from 43 percent in 1981 to 38 percent in 2010.

Table P.3 provides breakdowns of population among age groups. The percentage of persons under 19 will grow from 35 percent in **1981** to 41 percent in 2010. Seniors will **double** as a percentage of population from 3 percent to 6 percent by 2010.

Table P.4 traces the cause of the changes in population. Population increases steadily due to natural growth. A steady low-level emigration of workers and dependents throughout the projection period occurs.

Table P.5 is used to show estimates of nonresident employment. **Nonproject** enclave employment increases steadily from 55 in 1981 to 73 in 2010. Project and military enclave employment remains constant at zero.

Table P.7 shows the breakdown of basic employment. Fish processing employment increases steadily from 48 in 1981 to 73 in 2010.

Fishing and other basic employment remains at 1981 levels throughout the projection period.

Table P.8 shows an increase in support employment to a high of 110 in 1991 followed by a reduction to 99 in 1996, and subsequent steady increase to 115 in 2010. Endogenous support employment increases steadily from 42 to 75 over the projection period while exogenous and enclave-sponsored support employment remains constant.

Table P.9 shows changes in endogenous government employment during the projection period starting with a level of 14 in 1981, increasing to a high of 21 from 1988 to 1991 followed by a steady decrease to 15 in 2010. Exogenous government employment remains constant.

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History[1]

St. George is located on the northeast shore of the 36-square-mile St. George Island, the southernmost island of the Pribilof Island group near the edge of the southeast Bering Sea shelf. Archaeological records reveal no signs of habitation of the Pribilof Islands prior to their occupancy by Russian fur hunters in 1786. The Russians, dependent upon the hunting skills of the Natives, immediately imported Aleuts from Unalaska and Atka and founded St. George and St. Paul. United States interests in the Pribilofs have consistently centered on the fur seal harvest. From 1867 to 1909, the United States contracted private companies to harvest seals and process pelts. From 1910 to 1983, the federal government was the sole operator and administrator of the islands. Management and regulatory responsibilities in recent years were vested in the Secretary of Commerce through the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service. This relationship between the federal government and the Pribilof Islands terminated in October 1983. Legislation in Congress is being enacted to establish a trust fund for the two Pribilof communities to ease their transition to independence.

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[1]Excerpted from the community profile prepared by the Arctic Environmental Information and Data Center, University of Alaska, for the Alaska Department of Community and Regional Affairs. May 1978. Updated by ISER.

The social and political status of individual **Pribilof Aleuts** has been confusing since the days of Russian administration. Many citizenship rights such as voting were unavailable until the late **1940s.** In fact, residents were consistently regarded in federal **statutes** as "wards of the government" from about 1869 until the early 1960s. A "Special Reservation Status" for the **Pribilofs,** established in **1869,** gave the U.S. Government **full** control over the employment, welfare, education, and daily lives of the islanders. During World **War II** (from June 1942 to May 1944), the entire **Aleut** population of St. George and St. Paul was evacuated and restricted to an abandoned cannery and mine camp at **Funter** Bay about 16 air miles due west of Juneau, whereas other evacuated **Aleuts** had freedom of movement.

On July 17, 1950, the islanders adopted a constitution and charter under the Indian Reorganization **Act** of 1934.' The first community council was subsequently elected. The **Pribilof Aleuts** filed a claim in 1951 for Native land rights and compensations for past injustices with the 'Indian Claims Commission. The Fur Seal Act. of 1966 established the St. Paul **townsite** and provided for self-government. The act did not provide for the establishment of a St. George **townsite** because of the continuing government policy of pressuring the St. George villagers to relocate at St. Paul. The islanders' decision to participate in the Alaska Native **Claims** Settlement Act **(ANCSA)** of **1971** effectively extinguished the **1951** land claim, but

the suit for past injustices was pursued. In 1979, the two
communities won a judgment from the Indian Claims Commission and
settled for a monetary award. Eighty percent is to be distributed
to enrolled members of the communities and 20 percent is to be used
for community development.

Population

St. George had a population of 158 persons in 1980, according to the
Us. Bureau of the Census (Table V-1). This is a decline of
3.1 percent from the 1970 count. The community experienced an
average annual rate of decline of .3 percent during this decade.

Between 1960 and 1970, St. George's population decreased by
38.3 percent. This dramatic loss of population was likely due to
the U.S. Government's policy in the mid-1960s to consolidate the two
Pribilof Islands communities at St. Paul and to eventually resettle
the Pribilovians elsewhere.

Between 1970 and 1980, St. George experienced some shifts in its
population distribution. In 1970, children (persons less than
15 years old) comprised 46.6 percent of the population, while in
1980, they represented 31.0 percent. It appears that the community
had an older labor force in 1970 than it did in 1980. In 1970,
young adults (persons 20 to 34 years old) comprised only
10.4 percent of the population. In 1980, this age group represented
a fourth (24.7 percent) of the population. Adults 35 to 64 years

TABLE V-1.
ST. GEORGE POPULATION

AGE

	0-4	5-14	15-19	20-34	35-64	65+	Total
1980							
Total	16	33	24	39	34	12	158
Male	6	22	12"	22	19	6	87
Female	10	11	12	17	15	6	71
Native	16	33	23	36	33	12	153
Male	6	22	12	20	18	6	84
Female	10	11	11	16	15	6	69
Non-Native[a]	0	0	1	3	1"	o	5
Male	o	0	0	2	1	0	3
Female	o	0	1	1	0	0	2
1970							
Total	19	57	21	17	43	6	163
Male	10	31	11	7	22	6	87
Female	9	26	10	10	21	0	76
Native[b]	17	57	34		41	6	155
Male	9	31	16		22	6	84
Female	8	26	18		19	0	71
Non-Native	2	0	4		2	0	8
Male	1	0	2		0	0	3
Female	1	0	2		2	0	5
1960 Total							264

[a]Age-sex distribution is an estimate. The total number of Non-Natives given by the Census Bureau was five.

bThe 1970 Native age/sex breakdown is an estimate based on two sources: (1) the Census Bureau's age/sex breakdown of "Other Races," excluding the Black and White races; and (2) ISER's census-based publication (Alaska Review of Business and Economic Conditions, September 1973) giving total number of males and females of the Aleut, Eskimo, and Indian races.

Source: U.S. Census for 1960, 1970, 1980.

Institute of Social and Economic Research. "Age and Race by Sex Characteristics of Alaska's Village Population." Alaska Review of Business and Economic Conditions (September 1973).

TABLE V-2.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN ST. GEORGE, 1980

<u>Resident Basic Employment</u>	<u>**3**</u>
Fishing	0
Seal Processing	3
Other (Primarily Mining]	0
<u>Resident Support Employment</u>	<u>**12**</u>
Exogenous	0
Endogenous	5
Government-sponsored	7
Enclave-sponsored	,0
<u>**Resident** Government Employment</u>	<u>**21**</u>
Exogenous	0
Endogenous	21
<u>**Total** Resident</u>	<u>**36**</u>
Total Exogenous	3
Total **Endogenous**	33
<u>Nonresident (Enclave) **Employment**</u>	0
<u>Total Resident and Nonresident</u>	36

SOURCE : **Table** G.4, Appendix G.

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old made up 26.4 percent of the population in 1970, while they comprised 21.5 percent in 1980. Persons 65 years and older accounted for 3.7 percent of the population in 1970. They represented 7.6 percent in 1980.

St. George maintained its ethnic composition over the two decades. In 1970, Natives represented 95.7 percent of the population. In 1980, they comprised 96.8 percent.

Males accounted for 53.3 percent of the population in 1970 and for 55.1 percent in 1980.

Employment

Our estimates of employment and income in St. George for 1980 are based on a number of data sources and a variety of different assumptions. We describe how we developed these estimates in Appendix G.

EMPLOYMENTBY SECTOR

Table V-2 provides a breakdown of estimated full-time equivalent resident employment in St. George for 1980. Full-time equivalent (FTE) employment is a measure of total person-years of work. While FTE employment provides the best measure of work done over an entire year, actual employment at any time during the year may vary greatly from FTE employment.

Our estimates suggest **total** FTE employment of 36 jobs. **We** may break these jobs down into three sectors: **basic,** support, and government. Basic sector jobs are private sector jobs in the production of raw materials **and** manufactured goods including jobs in agriculture, forestry, fisheries, mining, and manufacturing. **We** estimate that there were 3 FTE basic sector jobs in **1980,** all of which were in seal processing. **In** total, basic sector jobs account for 8 percent of FTE employment.

Support sector jobs are nonbasic private sector jobs. We estimated 1980 FTE employment of 12 in support sector jobs, or 33 percent of total employment. These jobs were in the school, clinic, store, and canteen.

We estimated total government employment of 21 FTE jobs including National Marine Fisheries Service employees and local government workers. There is no military employment in St. George.

INCOME

Total personal income in St. George is made up of both wage and **nonwage** income. We estimate an annual per capita level of $5,696 for wage income and $985 for nonwage income for a total **per** capita level of $6,681 or $1,055,600 for the city.

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St. Paul is located on a narrow peninsula on the southern tip of the 44-square-mile St. Paul Island, the northernmost island of the Pribilof Island group, near the southeast margin of the extensive Bering Sea shelf.   Archaeological "records reveal no signs of habitation of the Pribilofs prior to their occupancy by Russian fur hunters' in 1786.   The Russians, dependent upon the hunting skills of the Natives, immediately imported Aleuts from Unalaska and Atka and founded St. Paul and St. George.   United States interests in the Pribilofs have consistently centered on the fur seal harvest.   From 1867 to 1909, the United States contracted private companies to harvest seals and process pelts.   From 1910 to 1983, the federal government was the sole operator and administrator of the islands. Management and regulatory responsibilities in recent years were vested in the Secretary of Commerce through the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS).   This relationship between the federal government and the Pribilof Islands terminated in October 1983.   Legislation in Congress is being enacted to establish a trust fund for the two Pribilof communities to ease their transition to independence.

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[1]Excerpted from the community profile prepared by the Arctic Environmental Information and Data Center, University of Alaska, for the Alaska Department of Community and Regional Affairs, May 1978. Updated by ISER.

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On **July** 17, **1950,** the islanders adopted a constitution and charter under the Indian Reorganization Act of **1934.** The first community council was subsequently elected. The **Pribilof Aleuts** filed a claim in **1951** for Native land rights and compensations for past injustices with the **Indian** Claims Commission. The Fur Seal Act of 1966 established the St. Paul townsite and provided for self-government. The islanders' decision to participate in the Alaska Native Claims Settlement Act **(ANCSA)** of 1971 effectively extinguished the 1951 **land** claim, but the suit for past injustices was pursued. In **1979,** the two communities won a judgment from the Indian Claims Commission and settled for a monetary award, 80 percent of which is to be

distributed to enrolled members of the communities and 20 percent to
be used for community development.
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Population

St. Paul appears to have maintained a relatively slow but stable
rate of growth between 1960 and 1980. In 1980, the U.S. Census
Bureau reported a population of 551 for St. Paul (Table VI-1). This
is a 22.4 percent increase over the 1970 count and an average annual
growth "rate of 2.0 percent.   Between 1960 and 1970, the community
increased by 19.0 percent and experienced an average annual growth
rate of 1.8 percent.

Children (persons under 15 years of age) made up 13.3 percent of the
population in 1970.   In 1980, they comprised 11.4 percent. 8etween
the two target years, there was not a significant change in" the
proportion of persons 15 to 19 years of age." In 1970, this group
represented 10.4 percent of the population, while in 1980 they
accounted for 11.8 percent.

The figures indicate that St. Paul had a younger labor force in 1980
than it had in 1970.   In 1970, persons 20 to 34 years old made up
19.1 percent of the population, while in 1980, they represented
27.6 percent.   Persons 35 to 64 years of age comprised 29.1 percent
of the population in 1970.   This same age group accounted for
24.5 percent of the population in 1980.

TABLE VI-1.
ST. PAUL POPULATION

AGE

	0-4	5-14	15-19	20-34	35-64	65+	Tots-l
1980							
Total	63	117	65	152	135	19	551
Male	35	66	36	87	81	10	315
Female	28	51	29	65	54	9	236
Native	55	111	59	116	123	19	483
Male	33	63	30	64	72	10	272
Female	22	48	29	52	51	9	211
Non-Native	8	6	6	36	12	0	68
Male	2	3	6	23	9	0	43
Female	6	3	0	13	3	0	25
1970							
Total	60	116	47	86	131	10	450
Male	35	55	25	41	77	6	239
Female	25	61	22	45	54	4	211
Native	56	114		126	122	30	428
Male	31	53		64	72	6	226
Female	25	61		62	50	4	202
Non-native	4	2		7	9	0	22
Male	4	2		2	5	0	13
Female	0	0		5	4	0	9
1960 Total							378

Source: U.S. Census for 1960, 1970, 1980.

Institute of Social and Economic Research. "Age and Race by
Sex Characteristics of Alaska's Village Population." ALaska
Review of Business and Economic Conditions (September 1973).

The number of persons 65 and older increased from 10 to 19 between
1970 and 1980, but this is only a slight percentage increase from
2.2 percent to 3.4 percent.

Considering the ethnic composition of the population of St. Paul, we
found that Natives accounted for 95.1 percent of the population in
1970, and 87.7 percent in 1980. "

Between the two target years, the proportion of males increased from
53.1 percent in 1970 to 57.2 percent in 1980.

Employment

Our estimates of employment and income in St. Paul for 1980 are based
on a number of data sources and a variety of different assumptions.
We describe how we developed these estimates in Appendix H.

EMPLOYMENT BY SECTOR

Table VI-2 provides a breakdown of estimated full-time equivalent
resident employment for St. Paul in 1980. Full-time equivalent (FTE)
employment is a measure of total person-years of work.   While FTE
employment provides the best measure of work done over an entire year,
actual employment at any time during the year may vary- greatly from
FTE employment.   In St. Paul there are approximately-three times as
many part-time workers as full-time workers.

Our estimates suggest total FTE employment of 97 jobs.   We may break
these jobs down into three sectors: basic, support, and government.

VI-5

9   "

Although the total FTE employment is similar in the two different estimates in Table VI-2, the breakdown by sector differs for the two primarily due to inconsistent categorization of school employment.

Basic sector jobs are private sector jobs in the production of raw materials and manufactured goods including jobs in agriculture, forestry, fisheries, mining, and manufacturing. We estimate that there were three FTE basic sector jobs in 1980--two of which were in seal processing. Reindeer antler processing accounted for the additional basic sector job. In total, basic sector-jobs account for 3 percent of FTE employment.

Support sector jobs are nonbasic private sector jobs. We estimated 1980 FTE employment of 42-52 in support sector jobs, or 43-53 percent of total employment. The majority of these jobs were in administrative positions for Tanadgusix Corporation (TDX) and in the store and tavern.

We estimated total government employment of 44-52 FTE jobs, over 80 percent of which were for the federal government in activities related to seal harvesting and processing. Total military employment was estimated at 25 FTE.

TABLE VI-2.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN ST. PAUL, 1980

<u>Resident Basic Employment</u>	<u>3</u>	<u>2</u>
Seal Processing	2	1
Other (Reindeer Antler)	1	1
<u>Resident Support Employment</u>	.<u>42</u>	<u>52</u>
Exogenous	8	9.5
Endogenous	19	19.5
Government-sponsored	15	23
Enclave-sponsored	0	0
<u>Resident Government Employment</u>	<u>52</u>	44
Exogenous	21	17
Endogenous	31	27
<u>Total Resident</u>	<u>97</u>	<u>98</u>
Total Exogenous	32	27.5
Total Endogenous	65	69.5
<u>Nonresident (Enclave) Employment</u>	0	0
<u>Tots? Resident and Nonresident</u>	97	98
<u>Total Military Employment</u>	25	25

SOURCE: Table H.4, Appendix H.

VI-7

INCOME

Total personal income in St. Paul is made up of both wage and nonwage income. We estimate an annual per capita level of $4,306 for wage income and $972 for nonwage income for a total per capita level of $5,278 or $2,907,980 for the city.

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VII. DESCRIPTION AND PROJECTIONS: NELSON LAGOON

History[1]

The community of Nelson Lagoon is located about 30 air miles west of Port Moller on a narrow, easterly-oriented sand spit that separates the lagoon and low-lying north coastal area of the western Alaska Peninsula from the Bering Sea. The community derived its name from the lagoon, which was named in 1882 for Edward William Nelson of the U.S Signal Corps, an explorer in the Yukon delta region between 1877 and 1920. Salmon processors became interested in the site early in this century because of the excellent fishing resources at Nelson Lagoon and nearby Bear River. The area had been a Native fish camp for years but was not permanently settled until about 1906 when a salmon saltery was built there. A salmon cannery operated periodically between 1915 and 1917, but no local processing plant has operated since. For many years, Nelson Lagoon was primarily a seasonal camp, but families began to settle there year-round, and a school was established in 1965.

Population

According to Table VII-1, Nelson Lagoon had a population of" 59 in 1980. This is a 37.2 percent increase over 1970 and-an average annual growth rate of 3.2 percent.

---

[1]Excerpted from the community profile prepared by the Arctic Environmental Information and Data Center, University of Alaska, for the Alaska Department of Community and Regional Affairs. May 1978.

TABLE VII-1.
NELSON LAGOON POPULATION

AGE

1980	0-4	5-14	15-19	20-34	35-64	65+	Total
Total	4	10	9	18	15	3	59
Male	2	6	2	11	7	0	28
Female	2	4	7	7	8	3	31
Native	4	10	9	15	14	3	55
Male	2	6	2	9	7	0	26
Female	2	4	7	6	7	3	29
Non-Native[a]	0	0	0	3	1	0	4
Male	0	0	0	2	0	0	2
Female	0	0	0	1	1	0	2
1970							
Total	6	12	3	15	7	0	43
Male	5	7	2	8	3	0	25
Female	1	5	1	7	4	0	18
Native	6	12		15	6	0	39
Male	5	7		8	3	0	23
Female	1	5		7	3	0	16
Non-Native	0	0		3	1	0	4
Male	0	0		2	0	0	2
Female	0	0		1	1	0	2

[a]Age-sex distribution is an estimate. The total number of Non-Natives given by the Census Bureau was four.

Source: U.S. Census for 1960, 1970, 1980.

Institute of Social and Economic Research. "Age and Race by Sex Characteristics of Alaska's Village Population." *Alaska. Review of Business and Economic Conditions* (September 1973).

In 1970, Nelson Lagoon had a relatively young population when compared to the 1980 figures. Children (persons less than 15 years of age) comprised 41.9 percent of the population in 1970, while in 1980 they made up 23.7 percent of the population. However, youths (15 to 19 years old) represented a higher proportion of the total in 1980 (15.3 percent) than in 1970 (7.0 percent).

The labor force remained relatively stable as the proportion of persons 20 to 64 years old comprised 51.2 percent of the population in 1970 and 55.9 percent in 1980. The elderly, those persons 65 years old or more, were not represented in 1970, while in 1980 they accounted for 5.1 percent of the population.

The ethnic composition of Nelson Lagoon has remained relatively constant over the decade. In 1970, 90.7 percent of the population was Native. In 1980, Natives comprised 93.2 percent. of the population.

The proportion of males declined in the past ten years. In 1970, males represented 58.1 percent of the population. In 1980, they accounted for 47.5 percent.

Employment

Our estimates of employment and income in Nelson Lagoon in 1980 are based on a number of data sources and a variety of different, assumptions. We describe how we developed these estimates in Appendix I.

EMPLOYMENT **BY SECTOR**

Table VII-2 provides a breakdown of estimated full-time equivalent resident employment for Nelson Lagoon in 1980. Full-time equivalent (FTE) employment is a measure of total person-years of work. While FTE employment provides the best measure of work done over an entire year, actual employment at any time during the year may vary greatly from FTE employment.

Our estimates suggest total FTE employment of 14 jobs. . We may break these jobs down into three sectors: basic, support, a-rid government.

Basic sector jobs are private sector jobs in the production of raw materials and manufactured goods including jobs in agriculture, forestry, fisheries, mining, and manufacturing. We estimate that there were 8 FTE basic sector jobs in 1980, all of which were in fishing. In total, basic sector jobs account for 57 percent of FTE employment.

Support sector jobs are nonbasic private sector jobs. Reestimated 1980 FTE employment of 5 in support sector jobs, or 36 percent of -- total employment. These jobs were in the school system, utility management and service, and local administration. There as-l FTE government employee and no military positions in Nelson Lagoon in 1980.

TABLE VII-2.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN NELSON LAGOON, 1980

<u>Resident Basic Employment</u>	<u>**8**</u>
Fishing	8
Fish Processing	**0**
Petroleum Processing	**0**
Other (Primarily Mining)	**0**
<u>**Resident** Support Employment</u>	<u>**5**</u>
Exogenous	**0**
Endogenous	**5**
Government-sponsored	0
Enclave-sponsored	0
<u>Resident Government Employment</u>	**1**
Exogenous	0
Endogenous	" 1
<u>Total Resident</u>	**14**
Total Exogenous	8
Total Endogenous	" 6
<u>Nonresident (Enclave) Employment</u>	<u>- **0**</u>
<u>**Total** Resident and Nonresident</u>	**14**

SOURCE : **Table I.1,** Appendix **I.**

INCOME

Total personal income in Nelson Lagoon is made up of both wage and nonwage income. We estimate an annual per capita level of $7,874 for wage income and $952 for nonwage income for a total per capita level of $8,826 or $520,746 for the community.

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VIII. CONCLUSIONS

In this report, we have presented descriptions and "base case" projections of population and employment for the communities of Unalaska and Cold Bay. We have also presented projections of the impacts on population and employment in these communities which might result from the proposed St. George Basin and North Aleutian Shelf OCS lease offerings.

The future development of Unalaska is highly uncertain. Our projections suggest that the population of Unalaska in the year 2000 could range from as low as 900--only a little larger than the 1980 resident population--to as high as 4,600. Future development of the crab and bottomfish industries will be the key factor affecting the future size of the community.

Unalaska is envisioned primarily as a marine support base for future OCS development. Our projections suggest that the relative impacts of- development resulting from the proposed lease sales would be relatively small. Development of both sale areas might increase population and employment by approximately 15 percent during the peak year of 1993. These projections are based on the assumption that only workers associated with the shore base would become residents of Unalaska.

Cold Bay is primarily a transient community based around aviation and communication facilities. In the "base case," the resident population may fall by about one-third due to future cutbacks in employment by the FAA, the U.S. Air Force, and RCA. However, OCS development in the Navarin Basin might reverse this decline, bringing population back to approximately current levels. Additional development from development of the St. George Basin or North Aleutian Shelf OCS sale areas could further increase population by as much as 40 percent, but Cold Bay would still remain a small community of approximately the same size as it was during the Vietnam war years.

In addition to our descriptions and projections for Unalaska and Cold Bay, we have provided descriptions for Sand Point, St. Paul, St. George, and Nelson Lagoon. However, we do not expect these communities to be directly affected by future OCS development in the St. George or North Aleutian Shelf lease sale areas.

APPENDIX A: **THE RURAL** ALASKA **MODEL**

This appendix describes the **Rural Alaska Model (RAM), which** was developed **at** the University **of** Alaska, Institute of **Social** and Economic Research **(ISER),** for **use** in projecting population and employment in **small** communities in **Alaska.** The model may **also be** used to examine the impacts of a specific project, such **as** outer continental **shelf** oil development, upon population, r e s i d e n t employment, and separate **"enclave"** employment of nonresidents.

In this appendix, **we** first describe the structure of the base case **RAM** model, or the form that the **model** takes when no specific projects are assumed. Subsequently, we describe the "impact" model, which may be used to examine the impacts of projects. A final section summarizes assumptions required **for** the model.

In Appendixes B and **C,** we provide a glossary of RAM **model** -variable notation and a listing of the equations in the **model.**

Figure A-1 illustrates the structure of the base case RAM **model.** From the census, starting year **values** are obtained for population **by** age group, sex, and race. Natural change in population due **to** births and deaths is calculated **using** assumed fertility rates and death rates for each group. Labor force participation rates for each group are used to calculate the **labor** force.

A-1

Figure A-1: Structure of the Rural Alaska Model

```
┌─────────────────────┐
│  Births and deaths  │
│   by age group,     │
│   sex, and race     │
└─────────────────────┘
        ↕
┌─────────────────────┐                    ┌──────────────┐
│   Population by      │ ───────────────→   │    Income    │
│    age group,        │                    └──────────────┘
│   sex, and race      │
└─────────────────────┘
        │
        │          ┌─────────────┐   ┌─────────────┐   ┌─────────────┐
        │          │ Government  │   │  Support    │   │   Basic     │
        │          │ Employment  │   │ Employment  │   │ Employment  │
        │          └─────────────┘   └─────────────┘   └─────────────┘
        ↓
┌─────────────┐                       ┌──────────────┐
│   Labor     │                       │    Total     │
│   Force     │                       │    Labor     │
└─────────────┘                       │   Demand     │
        │                             └──────────────┘
        ↓
┌─────────────────────┐
│   Migration in      │
│ response to excess  │
│   labor demand      │
└─────────────────────┘
```
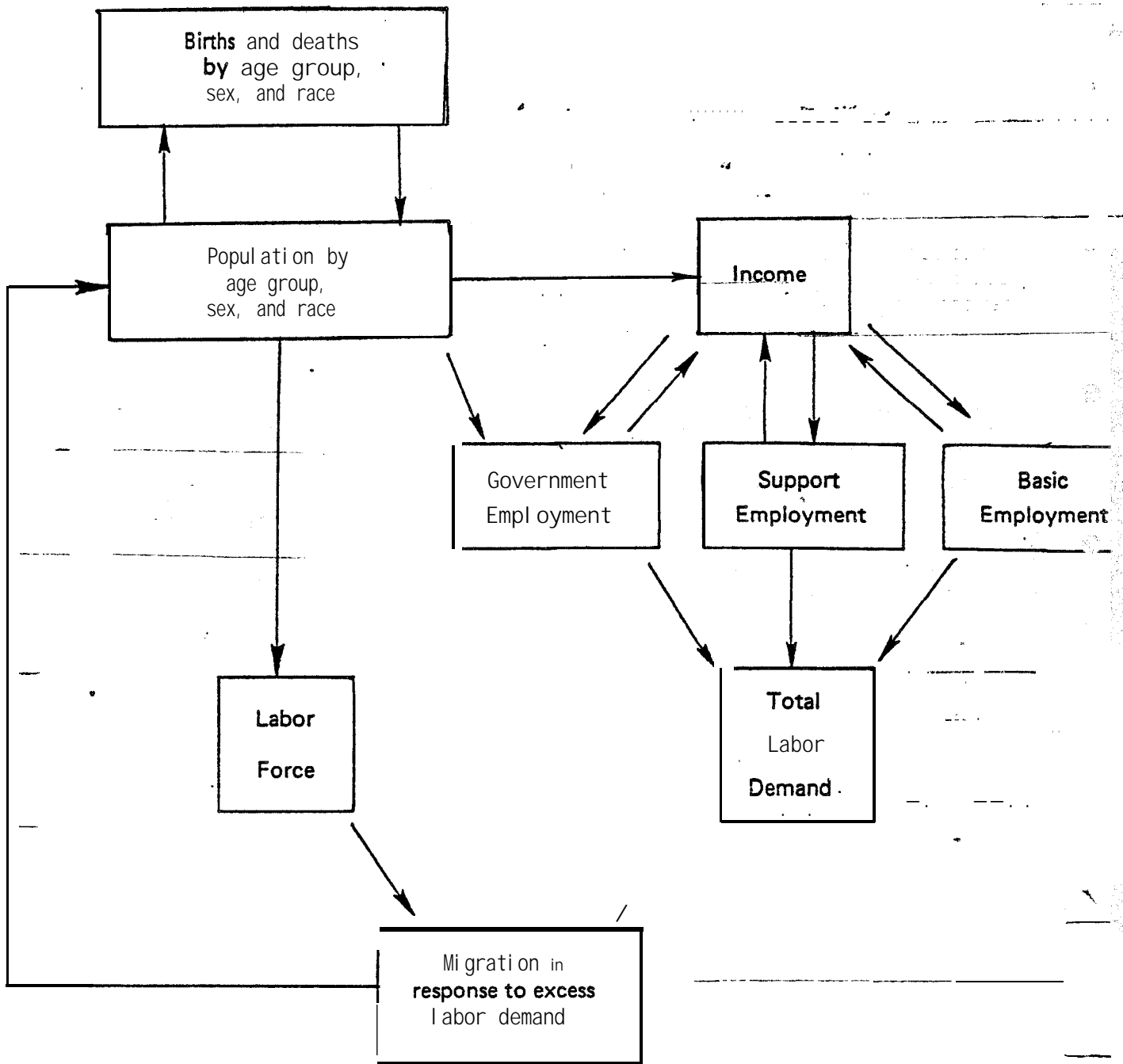
Employment is divided into **basic,** support, and government employment. Basic employment (in industries **such** as **fishing** and mining) is assumed independently of the model, based on factors such **as** resource **levels** and planned development projects. Government employment is projected as a function of population and **total state** revenues. Support employment is projected as a function of **local** resident income.

Total labor demand **is** the sum of employment in each sector. **If labor** demand exceeds the **local labor** force, additional workers are projected to move into the community, bringing dependents. **If** the **labor** force exceeds **labor** demand (allowing for **some** unemployment), some workers are projected to **leave** the community, bringing " dependents with them. **Total** in-migration or out-migration is added . to natural population growth in order to determine **total population** growth.

The following sections describe individual sections of the base case- ¯ model in greater detail. These are broken down into the **population** ¯ **model,** the employment **model,** the income **model,** the **labor market** -- ¯¯¯¯ **model,** and the migration **model.**

The Population Model
Although the population **model** accounts for **well** over **half** of the equations of the **RAM model,** it has a very **simple** structure. The

" -

population is divided into 24 cohorts corresponding to six age groups, two sexes, arid two races (native and non-native). These groups are shown in Figure A-2.

For each race and each age group except the youngest, the model first calculates population before migration, using the formula

Population "before Migration" = Population in previous year * Share which does not die * Share which does not advance to next age group

+ Population in previous year * in next lower age group * Share of previous age group which advances to next age group

For the youngest age group, the formula is:

Population before Migration =" Population in previous year * Share which does not die * Share which advances to next age group

+ Total births * Share of infants surviving first year

Total births are calculated as:

Total births = Female population in each age group * Fertility rate for women in each age group

A-4

Figure A-2   Cohorts in the RAM Population Model

Group	Ages	Native		Non-Native	
		Male	Female	Male	Female
1	0-4				
2	5-14				
3	15-19				
4	20-34				
5	35-64				
6	65+				

Finally, for each age, sex, and race cohort, population after migration is calculated as:

Population after migration	=	Population before migration	+	Migration

The Income Model

Income is defined in the model as income of local residents. It does not include income of enclave workers, nonresident fishermen, military personnel, etc., which is not calculated.

Income is calculated using the formula

Income	=	Wage income	+	Nonwage income

where

$$
\text{Wage income} = \text{Basic sector employment} * \text{Basic sector wage} + \text{Support sector employment} * \text{Support sector wage}
$$

$$
+ \text{Government sector employment} * \text{Government sector wage}
$$

and where

$$
\text{Nonwage income} = \text{Population} * \text{Assumed per capita nonwage income}
$$

A-6

Sometimes it is difficult to obtain reliable data on wage rates and on nonwage income. In this case, nonwage income may be assumed to be zero, and an arbitrary, identical wage rate assumed for all sectors. This produces an "income" variable which is proportional to resident employment, allowing for the determination of support employment using a simple multiplier. However, we have used a more elaborate structure incorporating income in the model in order to allow the use of wage and nonwage income data when these data are available.

The Employment Model

Table A-1 summarizes categories of employment in the base case model. All but three categories of employment are exogenous or assumed. Employment in these categories is thus an input to, rather than an output of, the RAM model. Thus, in order to run the RAM model, independent projections must first be made of fishing, fish processing, and other basic employment; exogenous support employment; exogenous government employment; and nonproject enclave employment. Examples of exogenous support activities are services provided by regional centers to the surrounding regions, or export; shipping terminals. Examples of exogenous government-employment are U.S. Forest Service, National Park Service, and Alaska Department of Fish and Game employment.

TABLE A-1.
CATEGORIES OF EMPLOYMENT IN THE BASE CASE RAM MODEL

Category of Employment	How Calculated
Basic Employment	
Fishing	Assumed
Fish processing	Ass umed
Nonfishing basic	Assumed
Support Employment	
Exogenous support	Ass umed
Endogenous support	Income * Multiplier
Government-sponsored support	Population * State per capita capital expenditures * multiplier
Enclave-generated support	Enclave employment * multiplier
Government Employment	
Exogenous government	Assumed
Endogenous government	Population * State per capita operating expenditures * multiplier
Nonproject Enclave Employment	
Nonresident fishermen	Assumed
Nonresident fish processing	Ass umed

The four categories of employment which are not assumed--those which are endogenous--typically account for a substantial share of employment in small Alaska communities. These are endogenous support employment, endogenous government employment, government-sponsored support employment, and enclave-generated support employment.

An example of endogenous support employment is employment in providing services to local residents, such as employment in stores and bars. The model calculates this employment as a function-of Income.

Endogenous government employment consists of those government employees providing services to local residents, such as teachers or police. This employment is calculated as a function of population -and per capita state operating expenditures. Assumptions for this latter variable are based on projections of ISER's statewide MAP model. The variable is included as a simple proxy for the availability of revenues to state and local government;

Government-sponsored support employment is support employment, primarily in construction, paid for by government. Examples "are employment in construction of schools, roads, and parts. This employment is projected as a function of population and state government per capita capital expenditures. The" reasoning is analogous to that for the calculation of endogenous government employment.

Enclave-generated supper% employment is assumed to be related to enclave employment by a simple multiplier.

The multipliers used in the calculation of endogenous employment are key assumptions of the model. For any given community, the multipliers are calculated by estimating 1980 values for employment in each category, as well as population, income and per capita state operating and capital expenditures. The multipliers are then derived algebraically, based on these 1980 figures. .

The Labor Market and Migration Models

The model calculates a total labor force by applying labor force participation rates to the population in each age, sex, and race cohort. Data in this form on labor force participation rates are not available for most communities and must be assumed-or inferred. .-Labor force participation rate assumptions are calculated using census data on native and non-native male and female employment, and then calculating rates consistent with 1980 population and employment. Labor demand is equal to total resident employment.

In order to calculate migration, the model first calculates a variable called "excess demand for labor." As long as the amount by which the labor force exceeds labor demand results in a level of unemployment which is between a threshold minimum level and a threshold maximum level, excess demand is considered to be zero.

If, however, labor demand exceeds the labor force by an amount great
enough so that unemployment would be below the threshold minimum
level, excess demand is measured as labor demand minus the labor
force when unemployment is at the threshold minimum level. If, on
the other hand, the labor force exceeds labor demand by an amount
great enough so that unemployment would be above the maximum
threshold level, then excess demand is negative, and is-measured as
labor demand minus the labor force when unemployment is at the
threshold maximum level. The purpose of this method of calculation
of excess demand for labor is to allow a range within" which there
will be no migration response to small changes in labor market
conditions, which results in a more stable model.

If excess demand is negative, a certain fraction of the excess labor ·
force is assumed to leave. A different fraction may be assumed for
natives and non-natives.

In-migrating workers are assumed to bring dependents (dependents are
defined as persons not in the labor force). The model-calculates-
total immigration in each age-sex-race cohort using the formula:

Immigration in cohort i	=	Number of workers immigrating	*	Assumed number of persons immigrating in cohort i per immigrant worker

Emigrating workers are also assumed to take dependents with them as
they leave. Total emigration in each age-sex cohort-for natives is
calculated as follows:

$$\begin{array}{c}\text{Total} \\ \text{Emigration} \\ \text{of native} \\ \text{workers}\end{array} = \begin{array}{c}\text{Total} \\ \text{excess} \\ \text{supply} \\ \text{of labor}\end{array} * \begin{array}{c}\text{Share of} \\ \text{natives} \\ \text{in labor} \\ \text{force}\end{array} * \begin{array}{c}\text{Assumed share of} \\ \text{native workers} \\ \text{who leave if jobs} \\ \text{are not available}\end{array}$$

$$\begin{array}{c}\text{Total} \\ \text{Emigration} = \\ \text{of native} \\ \text{Dependents}\end{array} \begin{array}{c}\text{Emigration} \\ \text{of native} \\ \text{workers}\end{array} * \frac{\text{Total native dependents}}{\text{Total native workers}} * \begin{array}{c}\text{Adjustment} \\ \text{parameter}\end{array}$$

$$\begin{array}{c}\text{Emigration of} \\ \text{native workers} \\ \text{in age-sex} \\ \text{cohort i}\end{array} = \begin{array}{c}\text{Total} \\ \text{emigration} \\ \text{of native} \\ \text{workers}\end{array} * \frac{\text{Native workers in age-sex cohort i}}{\text{total native workers}}$$

$$\begin{array}{c}\text{Emigration of} \\ \text{native depen-} \\ \text{dents in age-} \\ \text{sex cohort i}\end{array} = \begin{array}{c}\text{Total} \\ \text{emigration} \\ \text{of native} \\ \text{dependents}\end{array} * \frac{\text{Native dependents in age-sex cohort i}}{\text{Total native dependents}}$$

The "adjustment parameter in the second equation is an assumed value for the ratio of dependents to 'workers for emigrants divided by the ratio of dependents to workers for the total population. Emigration of non-natives in each age-sex cohort is calculated in a - similar fashion as for natives.

The model feeds the projected levels of immigration or emigration for each age-sex-race cohort into the population model in order to - calculate total population.

The model also allows for exogenous or non-economic-related migration, which is assumed each year to be a fixed share of population in each age cohort.

The Impact Model

We designed the RAM "Impact" Model for the purpose of examining the impact on population and resident employment of special "projects," such as outer continental shelf oil development, which might take place near rural Alaskan communities. Of the employment associated with any given project, we wanted to be able to determine how many jobs might be held by community residents, how many jobs might be held by persons living in enclaves separated from the community, and how many jobs might be held by "commuters" who would pass through out not be based in the community (these would primarily be people holding offshore jobs).

A great number of factors affect the answers to these questions. These include the extent to which the industry actively seeks to hire locally, or alternatively, has a policy of hiring nonlocally; the extent to which local residents have the skills required for the special project jobs, or receive training for them; and the extent to which workers brought in to fill project jobs settle in the community as opposed to living in an enclave. Developing a model which takes account of all these factors is a complicated task requiring numerous assumptions. In the RAM impact model, we have attempted to allow for flexibility in our assumptions about these factors, while retaining a reasonably simple structure for the model. To the extent that the model structure is still too complicated for a given situation, it can be "collapsed" to a much

simpler structure by assuming zero values for various parameters and exogenous inputs.

With the exception of the labor market model, the RAM Impact Model is essentially identical to the base case model. Income and endogenous employment are calculated in the same way (except that wages from resident project employment are added to total income, and project enclave employment is assumed to contribute to enclave-generated support employment). The population and migration models are unchanged.

Figure A-3 illustrates the labor market model. Local resident labor supply, shown in the middle of the figure, is calculated in the same way as in the base case model, . using assumed labor force participation rates. "Other sector" demand for labor, shown at the top right of Figure A-3, is derived from the 'base case employment model. The outputs '*imported workers who become 'residents" and "outmigration of resident workers," shown at the bottom of the figure, are inputs to the base case migration model.   - - - -

We assume a total level of project employment which is divided into "skilled" and "nonskilled" employment. By "skilled" employment, we refer to jobs which require previous training or experience in the project sector (i.e., oil-work related skills for OCS development). We also divide total project employment up into onshore and offshore

Figure A-3: Allocation of Project Employment between Resident and Non-Resident Workers in the RAM Impact Model

A-15
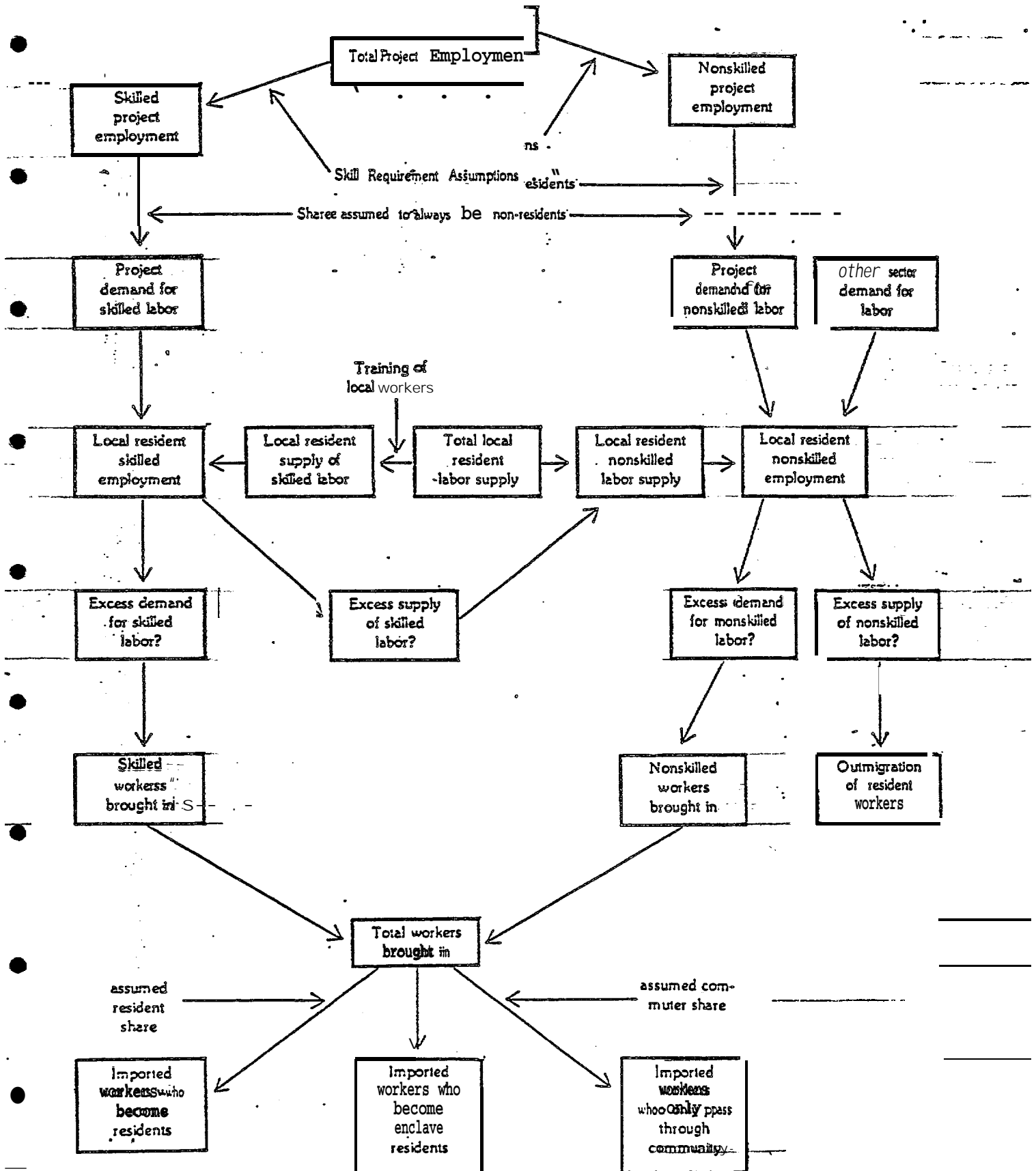
jobs and short-term and long-term jobs, because this affects the extent to which jobs not taken by current residents will be filled by persons who will become residents, and the extent to which jobs not filled by residents will be filled by "commuters" who only pass through the community. Based on these assumptions about the breakdown of project jobs as well as assumptions about the share of jobs which are reserved (for whatever reasons) for nonresidents, we calculate total demand for skilled and unskilled labor from the local community. To the extent that the local community can supply this labor, the jobs are filled by local residents. Otherwise, workers are brought in to fill the jobs.

The model first allocates jobs to local skilled labor. An initial assumption is made as to the number of worker% residing in the community who have the required skills. Each year this number is adjusted to reflect new skilled workers who have settled in the community (or skilled workers who have left the community) and local residents who have been trained in the required skills. The number of residents receiving training each year is assumed to be either a - given share of those skilled jobs which local skilled labor is not available to fill, or else a given share of nonskilled workers willing to accept training-- whichever is lower.

To the extent that there is excess demand for skilled labor (demand exceeds local supply), skilled workers are brought in to fill these jobs. To the extent that there is excess supply (local supply

exceeds demand), the "excess" skilled workers seek nonskilled jobs and are added to the supply of nonskilled labor.

The model next compares the total demand for nonskilled labor (which includes project jobs as well as all other jobs) with the supply of nonskilled labor. If there is excess demand for nonskilled labor, some workers are brought in; if there is excess supply, some workers leave. The nonskilled labor market is the same as base case model labor market.

If the model calculates that either skilled or unskilled workers are brought in due to excess labor demand, a certain. share of these workers is assumed to become residents. All workers brought in to fill nonproject jobs are assumed to become residents, while only . some (if any) of the workers brought in to fill project jobs become residents. Those imported workers who become residents also bring dependents, as in the base case model. Those imported workers who do not become residents are divided between those living in enclaves ÷ – and those who are only commuters passing through the town (such as nonresident offshore workers).

A more detailed understanding of the impact model labor market is best obtained by studying the model equations in Appendix C.

Model Assumptions

This Section describes the assumptions required in order to run the RAM model, as well as the procedures used to develop the assumptions. Three kinds of assumptions are required: parameters, exogenous variables, and starting values. Parameters are assumptions which remain the same for each year of the model projections. Examples are fertility rates and employment multipliers. Exogenous variables require assumptions for each year of the projection period. Examples are basic employment in fishing and fish processing, project-related employment, and per capita state government operating and capital expenditures. Starting values are variables for which historical values are needed for the year or years prior to the starting year of the projections. In particular, " starting values are needed for population in each age-sex-race cohort for the year prior to the starting year of the projections, as well as the number of workers with project-related skills.

All of the model assumptions are listed in a set of 16 worksheets- which are completed prior to each model run. Each worksheet includes a description of how the assumptions are developed. Table A-2 provides a summary list of model assumptions as well as an index to the worksheets.

Appendixes K and L include complete sets of worksheets for the assumptions which we used in preparing projections for Unalaska and Cold Bay.

TABLE A-2. ASSUMPTIONS REQUIRED TO RUN
THE RAM POPULATION MODEL

Assumptions	Worksheet

Population Model Assumptions

Assumption	Worksheet
Population in year prior to start of projection for each age/sex/race cohort	1
Share of population which survives (does not die) in any given year, for each age/sex/race cohort	2
Fertility rates for Native and Non-Native women in each age group	2
Share of population in each age group which does not advance to the next age group (shift factor)	3
Infant survival rates	3
Sex distribution of infants	3

Income and Employment Model Assumptions

Assumption	Worksheet
Assumptions used to calculate multipliers	4
Endogenous support employment multiplier	5
Government-sponsored support employment multiplier	5
Enclave-generated support employment multiplier	5
Endogenous government employment multiplier	5
State government per capita operating and capital expenditures for projection period	6
Per capita nonwage income for projection period	7
Basic sector, support sector, government sector, and project sector real wage rates for projection period	7

APPENDIX B: RAM MODEL VARIABLE NOTATION

All RAM model variable names are constructed out of combinations of two-letter groups. Table B-1 lists these two-letter groups, along with their definitions, in alphabetical order.

For example, the variable INNOWAPC may be divided into IN-NO-WA-PC. By referring to Table B-1, we can determine that this means "income"-"non"-"wage"-"per capita," or per capita nonwage income. Similarly, STPCOE can be divided into ST-PC-OE, which means "state"-"per capita"-"operating expenditures."

TABLE B-1.   RAM (RURAL ALASKA MODEL) NOTATION CODE

AD   adjusted

An   age group n

AT   adult

BA   basic

BE   before adjustment for migration or training

BT   births

CE   capital expenditures

CH   change in

Cn   coefficient in equation used to define a variable

CO   commuter

CP   commuter parameter

CR   crude

DE   dependent

DT   deaths

EC   economic

ED   endogenous

EM   employment

EN   enclave

ES   excess supply

EX   exogenous

FE   female

FI   fishing

Fn   female, age group n

FP   fish processing

FR   fertility rate

GE   geriatric or senior

GF   federal government

GO   government

GR   growth

HG   high

HH   household

IC   increase

ID   index

IM   mm gration

IN   income

KD   preschool age children or "kids"

LA   labor

LF   labor force

LO   local

LR   long run

LS   labor   ly

LW   low

MA   male

MG   endogenous migration

MI   migration

ML   military

Mn   male, age group n

MU   multiplier

MX   exogenous migration

NA	native
NE	net
NF	nonfishing
NN	Non-Native
NO	non-
NR	nonresident
NS	nonskilled
NT	natural
OE	operating expenditure
OF	offshore
ON	onshore
OT	other
OU	out-
PA	parameter used in defining a variable
PC	per capita
PJ	project
PL	project long-run
PN	percent
PO	population
PR	participation rate
PS	project short-run
PT	po.ential
RA	rate
RE	resident
RF	resident fishing

RT	ratio
RV	revenues
SE	share of excess demand
SF	cohort shift
SH	share
SL	school aged
SN	share of nonresidents
SK	skilled
SR	share of excess demand who become residents
ST	state
SU	support
SV	survival
TA	taxes
TF	transfer
TN	trainees
TO	total
TR	tourist
UN	unemployment
WA	wage

APPENDIX C: RAM MODEL EQUATIONS

This appendix provides a complete listing of the RAM model. The model is programmed in TROLL on the MIT computer. In order to run the model, we access the MIT computer using a telenet telephone connection. TROLL is a powerful "modeling language which was developed especially for modeling simultaneous systems such as that of the "RAM model.

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MODEL: RAM15

   THIS VERSION OF THE RURAL ALASKA MODEL (RAM) WAS DEVELOPED AT
   THE INSTITUTE OF SOCIAL AND ECONOMIC RESEARCH UNDER CONTRACT
   WITH THE MINERALS MANAGEMENT SERVICES OFFICE OF THE BUREAU OF
   LAND MANAGEMENT. THE RAM MODEL IS USED FOR PROJECTING ECONOMIC
   CONDITIONS IN ALASKA'S BUSH COMMUNITIES. DATE COMPLETED : 12
   JULY 1983.

SYMBOL DECLARATIONS

   THIS LIST CLASSIFIES ALL THE VARIABLES OF THE MODEL AS EITHER
   EN DOGENOUS, DEFINITION, EXOGENOUS, COEFFICIENT, OR PARAMETER.
   ALL EXOGENOUS, COEFFICIENT, AND PARAMETER VARIABLE ARE ASSUMED.
   STARTING YEAR VALUES FOR 1980 ARE REQUIRED FOR ALL ENDOGENOUS
   VARIABLES. VALUES OF ENDOGENOUS VARIABLES AND DEFINITION
   VARIABLES FOR THE YEARS AFTER 1980 ARE CALCULATED BY THE MODEL .

ENDOGENOUS:

DENA DENN EMENPJ EMGO EMGOEG EMREPJ EMSU EMSUEG EMSUGO IMMGLA
IMMGLANS IMMGLASK IN INNOWA INWA LSNA LSNN LSSK MGNAF1 MGNAF2
MGNAF3 MGNAF4 MGNAF5 MGNAF6 MGNAM1 · MGNAM2 MGNAM3 MGNAM4 MGNAM5
MGNAM6 MGNNF1 MGNNF2 MGNNF3 MGNNF4 MGNNF5 MGNNF6 MGNNM1 MGNNM2
MGNNM3 MGNNM4 MGNNM5 MGNNM6 OUDENAF1 OUDENAF2 OUDENAF3 OUDENAF4
OUDENAF5 OUDENAF6 OUDENAM1 OUDENAM2 OUDENAM3 OUDENAM4 OUDENAM5
OUDENAM6 OUDENNF1 OUDENNF2 OUDENNF3 OUDENNF4 OUDENNF5 OUDENNF6
OUDENNM1 OUDENNM2 OUDENNM3 OUDENNM4 OUDENNM5 OUDENNM6 OULANAF3
OULANAF4 OULANAF5 OULANAF6 OULANAM3 OULANAM4 OULANAM5 OULANAM6
OULANNF3 OULANNF4 OULANNF5 OULANNF6 OULANNM3 OULANNM4 OULANNM5
OULANNM6 OUMGDENA OUMGDENN OUMGLANA OUMGLANN OUMGLASK PO PONAF1
PONAF2 PONAF3 PONAF4 PONAF5 PONAF6 PONAM1 PONAM2 PONAM3 PONAM4
PONAM5 PONAM6 PONNF1 PONNF2 PONNF3 PONNF4 PONNF5 PONNF6 PONNM1
PONNM2 PONNM3 PONNM4 PONNM5 PONNM6 TN

DEFINITION:
BEPONAF1 BEPONAF2 BEPONAF3 BEPONAF4 BEPONAF5 BEPONAF6 BEPONAM1 -"
BEPONAM2 BEPONAM3 BEPONAM4 BEPONAM5 BEPONAM6 BEPONNF1 BEPONNF2
BEPONNF3 BEPONNF4 BEPONNF5 BEPONNF6 BEPONNM1 BEPONNM2 BEPONNM3
BEPONNM4 BEPONNM5 BEPONNM6 BTNA BTNN BTRACR BTRANA BTRANN BTTO CHPO
CPNS CPSK DTNA DTNN DTRACR DTRANA DTRANN DTTO ED EDSK EDSKBE EMBA
EMCOPJ EMCOPJNS EMCOPJSK EMENPJNS EMENPJSK EMPJ EMPJNS EMPJOF EMPJON
EMPJSK EMREPJNS EMREPJSK EMRETO EMSUEN EMTO IM IMDE IMLA INPC
INWAPC LDNS LDPJNS LDPJSK LDPLOFNS LDPLOFSK LDPLONNS LDPLONSK
LDPSOFNS LDPSOFSK LDPSONNS LDPSONSK LDSK LSNS LSNSBE LSSKBE MGNA
MGNN NTIC NTICNA NTICNN OUMGLA PNPOA1 PNPOA2 PNPOA3 PNPOA4 PNPOA5
PNPOA6 PNPOF1 PNPOF2 PNPOF3 PNPOF4 PNPOF5 PNPOF6 PNPOM1 PNPOM2

POPULATION BY AGE, SEX, AND RACE

NON NATIVE POPULATION BEFORE MIGRATION

17: $BEPONNM2 == SFPA02*SVRANNM2*PONNM2(-1)+(1-SFPA01)*PONNM1(-1)*SVRANNM1$

18: $BEPONNF2 = SFPA02*SVRANNF2*PONNF2(-1)+(1-SFPA01)*PONNF1(-1)*SVRANNF1$

19: $BEPONNM3 == SFPA03*SVRANNM3*PONNM3(-1)+(1-SFPA02)*PONNM2(-1)*SVRANNM2$

20: $BEPONNF3 = SFPA03*SVRANNF3*PONNF3(-1)+(1-SFPA02)*PONNF2(-1)*SVRANNF2$

21: $BEPONNM4 == SFPA04*SVRANNM4*PONNM4(-1)+(1-SFPA03)*PONNM3(-1)*SVRANNM3$

22: $BEPONNF4 = SFPA04*SVRANNF4*PONNF4(-1)+(1-SFPA03)*PONNF3(-1)*SVRANNF3$

23: $BEPONNM5 == SFPA05*SVRANNM5*PONNM5(-1)+(1-SFPA04)*PONNM4(-1)*SVRANNM4$

24: $BEPONNF5 == SFPA05*SVRANNF5*PONNF5(-1)+(1-SFPA04)*PONNF4(-1)*SVRANNF4$

25: $BEPONNM6 = SFPA06*SVRANNM6*PONNM6(-1)+(1-SFPA05)*PONNM5(-1)*SVRANNM5$

26: $BEPONNF6 == SFPA06*SVRANNF6*PONNF6(-1)+(1-SFPA05)*PONNF5(-1)*SVRANNF5$

27: $BTNN = = BEPONNF3*FRNNO3+BEPONNF4*FRNNO4+BEPONNF5*FRNNO5$

28: $BEPONNM1 == SFPA01*SVRANNM1*PONNM1(-1)+SXDVNN*BTNN*IFSVNNMA$

29: $BEPONNF1 == SFPA01*SVRANNF1*PONNF1(-1)+(1-SXDVNN)*BTNN*IFSVNNFE$

30: $DTNN == BEPONNM6(-1)*(1-SVRANNM6)+BEPONNF6(-1)*(1-SVRANNF6)+$
$BEPONNM5(-1)*(1-SVRANNM5)+BEPONNF5(-1)*(1-SVRANNF5)+BEPONNM4(-1)*$
$(1-SVRANNM4)+BEPONNF4(-1)*(1-SVRANNF4)+BEPONNM3(-1)*(1-SVRANNM3)+$
$BEPONNF3(-1)*(1-SVRANNF3)+BEPONNM2(-1)*(1-SVRANNM2)+BEPONNF2(-1)*($
$1-SVRANNF2)+BEPONNM1(-1)*(1-SVRANNM1)+BEPONNF1(-1)*(1-SVRANNF1)$

31: $NTICNN == BTNN-DTNN$

NON NATIVE POPULATION AFTER MIGRATION

32: PONNM1 = BEPONNM1*(1+MXRANNM1)+MGNNM1

33: PONNF1 = BEPONNF1*(1+MXRANNF1)+MGNNF1

34: PONNM2 = BEPONNM2*(1+MXRANNM2)+MGNNM2

35: PONNF2 = BEPONNF2*(1+MXRANNF2)+MGNNF2

36: PONNM3 = BEPONNM3*(1+MXRANNM3)+MGNNM3

37: PONNF3 = BEPONNF3*(1+MXRANNF3)+MGNNF3

38: PONNM4 = BEPONNM4*(1+MXRANNM4) +MGNNM4

39: PONNF4 = BEPONNF4*(1+MXRANNF4)+MGNNF4   "

40: PONNM5 = BEPONNM5*(1+MXRANNM5)+MGNNM5

41: PONNF5 = BEPONNF5*(1+MXRANNF5)+MGNNF5

42: PONNM6 = BEPONNM6*(1+MXRANNM6)+MGNNM6

43: PONNF6 = BEPONNF6*(1+MXRANNF6)+MGNNF6

44: PONN == PONNM6+PONNF6+PONNM5+PONNF5+PONNM4+PONNF4+PONNM3+PONNF3+
PONNM2+PONNF2+PONNM1+PONNF1

45:      BEPONAM2 == SFPAO2*SVRANAM2*PONAM2(-1)+(1-SFPAO1)*PONAM1(-1)*
           SVRANAM1

46:      BEPONAF2 == SFPAO2*SVRANAF2*PONAF2(-1)+(1-SFPAO1)*PONAF1 (-1)*
           SVRANAF1

47:      BEPONAM3 == SFPAO3*SVRANAM3*PONAM3(-1)+(1-SFPAO2)*PONAM2(-1)*
           SVRANAM2

48:      BEPONAF3 == SFPAO3*SVRANAF3*PONAF3(-1)+(1-SFPAO2)*PONAF2(-1)*
           SVRANAF2

49:      BEPONAM4 == SFPAO4*SVRANAM4*PONAM4(-1)+(1-SFPAO3)*PONAM3(-1)*
           SVRANAM3

50 :   BEPONAF4 == SFPAO4*SVRANAF4*PONAF4(-1)+(1-SFPAO3)*PONAF3(-1)*
           SVRANAF3

51:      BEPONAM5 == SFPAO5*SVRANAM5*PONAM5(-1)+(1-SFPAO4)*PONAM4(-1)*
           SVRANAM4

52:      BEPONAF5 == SFPAO5*SVRANAF5*PONAF5(-1)+(1-SFPAO4)*PONAF4(-1)*
           SVRANAF4

53:      BEPONAM6 == SFPAO6*SVRANAM6*PONAM6(-1)+(1-SFPAO5)*PONAM5(-1)*
           SVRANAM5

54:      BEPONAF6 == SFPAO6*SVRANAF6*PONAF6(-1)+(1-SFPAO5)*PONAF5(-1)*
           SVRANAF5

55:      BTNA == BEPONAF3*FRNAO3+BEPONAF4*FRNAO4+BEPONAF5*FRNAO5

56:      BEPONAM1 == SFPAO1*SVRANAM1*PONAM1 (-1)+SXDVNA*BTNA*IFSVNAMA

57:      BEPONAF1 == SFPAO1*SVRANAF1*PONAF1 (-1)+(1-SXDVNA)*BTNA*IFSVNAFE

NATIVE POPULATION AFTER MIGRATION

58: **PONAM1 = BEPONAM1*(1+MXRANAM1)+MGNAM1**

59: PONAF1 = BEPONAF1*(1+MXRANAF1)+MGNAF1

60: PONAM2 = BEPONAM2*(1+MXRANAM2)+MGNAM2

61: PONAF2 = BEPONAF2*(1+MXRANAF2)+MGNAF2

62: **PONAM3** = BEPONAM3*(1+MXRANAM3)+MGNAM3

63: PONAF3 = BEPONAF3*(1+MXRANAF3)+MGNAF3

64: **PONAM4 = BEPONAM4*(1+MXRANAM4)+MGNAM4**

65: PONAF4 =   BEPONAF4*(1+MXRANAF4)+MGNAF4   "   ..

66: **PONAM5 = BEPONAM5*(1+MXRANAM5)+MGNAM5**   –   –

67: PONAF5 = **BEPONAF5*(1+MXRANAF5)+MGNAF5**

68: **PONAM6** = BEPONAM6*(1+MXRANAM6)+MGNAM6   "

69: PONAF6 = **BEPONAF6*(1+MXRANAF6)+MGNAF6**   .   "

70: OTNA == BEPONAM6(-1)*(1-SVRANAM6)+BEPONAF6(-1)*(1-SVRANAF6)+
BEPONAM5(-1)*(1 -SVRANAM5)+BEPONAF5(-1)*(1-SVRANAF5)+BEPONAM4 (-1)*(
1-SVRANAM4)+BEPONAF4(-1)*(1-SVRANAF4)+BEPONAM3(-1   )*(1-SVRANAM3)+
BEPONAF3(-1)*(1 -SVRANAF3)+BEPONAM2(-1)*(1-SVRANAM2)+BEPONAF2(-1)*(
1-SVRANAF2)+BEPONAM1(-1)*(1-SVRANAM1)+BEPONAF1(-1)*(1-SVRANAF1)   "

71: PONA == PONAM6+PONAF6+PONAM5+PONAF5+PONAM4+PONAF4+PONAM3+PONAF3+
PONAM2+PONAF2+PONAM1+PONAF1

72: **NTICNA** == BTNA-DTNA

MALE POPULATION BY AGE COHORT

73:      POM1 == PONNM1+PONAM1

74:      POM2 == PONNM2+PONAM2

75:      POM3 == PONNM3+PONAM3

76:      POM4 == PONNM4+PONAM4

77:      POM5 == PONNM5+PONAM5

78:      POM6 == PONNM6+PONAM6

FEMALE POPULATION BY AGE COHORT

79:      POF1 == PONNF1+PONAF1

80:      POF2 == PONNF2+PONAF2

81:      POF3 == PONNF3+PONAF3

82:      POF4 == PONNF4+PONAF4

83:      POF5 == PONNF5+PONAF5

84:      POF6 == PONNF6+PONAF6

TOTAL POPULATION AND CHANGE IN POPULATION

85:      PO = POM1+POM2+POM3+POM4+POM5+POM6+POF1+POF2+POF3+POF4+POF5+POF6

86:      CHPO == PO-PO(-1)

BIRTH AND DEATH RATE IDENTITIES

87:      BTTO == BTNN+BTNA

88:      DTTO == DTNN+DTNA

89:      NTIC == BTTO-DTTO

90:      BTRANA == BTNA/PONA*1000

91:      DTRANA == DTNA/PONA*1000

92:      BTRANN == BTNN/PONN*1000

93:      DTRANN == DTNN/PONN*1000

94:      BTRACR == BTTO/(PONN+PONA) *1000

95:      DTRACR == DTTO/(PONN+PONA)*1 000

DEFINITION OF AGE GROUPS

96:      POKD == POM1+POF1

97:      POSL == POM2+POF2+0.8*(POM3+POF3)

98:      POAT == 0.2*(POM3+POF3)+POM4+POF4+POM5+POF5

99:      POGE == POM6+POF6

NATIVE POPULATION BY AGE COHORT

100:      PONAA1 == PONAM1+PONAF1

101:      PONAA2 == PONAM2+PONAF2

102:      PONAA3 == PONAM3+PONAF3

103:      PONAA4 == PONAM4+PONAF4

104:      PONAA5 == PONAM5+PONAF5

105:      PONAA6 == PONAM6+PONAF6

NON NATIVE POPULATION BY AGE COHORT

106:      PONNA1 == PONNM1+PONNF1

107:      PONNA2 == PONNM2+PONNF2

108:      PONNA3 == PONNM3+PONNF3

109:      PONNA4 == PONNM4+PONNF4

110:      PONNA5 == PONNM5+PONNF5

111:      PONNA6 == PONNM6+PONNF6

TOTAL POPULATION BY AGE COHORT

112:      POA1 == POM1+POF1

113:      POA2 == POM2+POF2

114:      POA3 == POM3+POF3

115:      POA4 == POM4+POF4

116:      POA5 == POM5+POF5

117:      POA6 == POM6+POF6

POPULATION BY RACE AND SEX COHORTS

118:      PONAMA == PONAM1+PONAM2+PONAM3+PONAM4+PONAM5+PONAM6

119:      PONAFE == PONAF1+PONAF2+PONAF3+PONAF4+PONAF5+PONAF6

120:      PONNMA == PONNM1+PONNM2+PONNM3+PONNM4+PONNM5+PONNM6

121:      PONNFE == PONNF1+PONNF2+PONNF3+PONNF4+PONNF5+PONNF6

122:      POMA == PONAMA+PONNMA

123:      POFE == PONAFE+PONNFE

TOTAL CIVILIAN, ENCLAVE, AND MILITARY POPULATION

124:     POML == EMML+DEML

125:     POTO == PO+EMENNOPJ+EMENPJ+POML

SPECIAL POPULATION CATEGORIES AS A PERCENT OF TOTAL POPULATION

126:     PNPOA1 == 100*POA1/PO

127:     PNPOA2 == 100*POA2/PO

128:     PNPOA3 == 100*POA3/PO

129:     PNPOA4 == 100*POA4/PO

130:     PNPOA5 == 100*POA5/PO

131:     PNPOA6 == 100*POA6/PO

132:     PNPONAA1 == 100*PONAA1/PONA

133:     PNPONAA2 == 100*PONAA2/PONA

134:     PNPONAA3 == 100*PONAA3/PONA

135:     PNPONAA4 == 100*PONAA4/PONA

136:     PNPONAA5 == 100*PONAA5/PONA

137:     PNPONAA6 == 100*PONAA6/PONA

138:     PNPONNA1 == 100*PONNA1/PONN

139:     PNPONNA2 == 100*PONNA2/PONN

140:     PNPONNA3 == 100*PONNA3/PONN

141:     PNPONNA4 == 100*PONNA4/PONN

142:     PNPONNA5 == 100*PONNA5/PONN

143:     PNPONNA6 == 100*PONNA6/PONN

144:     PNPOM1 == 100*POM1/POMA

145:     PNPOM2 == 100*POM2/POMA

146: PNPOM3 == 100*POM3/POMA

147: PNPOM4 == 100*POM4/POMA

148: PNPOM5 == 100*POM5/POMA

149: PNPOM6 == 100*POM6/POMA

150: PNPOF1 == 100*POF1/POFE

151: PNPOF2 == 100*POF2/POFE

152: PNPOF3 == 100*POF3/POFE "

153: PNPOF4 == 100*POF4/POFE

154: PNPOF5 == 100*POF5/POFE

155: PNPOF6 == 100*POF6/POFE

156: PNPONAM1 == 100*PONAM1/PONAMA

157: PNPONAM2 == 100*PONAM2/PONAMA

158: PNPONAM3 == 100*PONAM3/PONAMA

159: PNPONAM4 == 100*PONAM4/PONAMA .

160: PNPONAM5 == Ioo*PoNAM5/PoNAMA

161: PNPONAM6 == 100*PONAM6/PONAMA

162: PNPONAF1 == 100*PONAF1/PONAFE

163: PNPONAF2 == 100*PONAF2/PONAFE

164: PNPONAF3 == 100*PONAF3/PONAFE

165: PNPONAF4 == 100*PONAF4/PONAFE

166: PNPONAF5 == Ioo*PoNAF5/PoNAFE

167: PNPONAF6 == 100*PONAF6/PONAFE

168: PNPONNM1 == 100*PONNM1/PONNMA

169: PNPONNM2 == 100*PONNM2/PONNMA

170: PNPONNM3 == Ioo*PoNNM3/PoNNMA

171: PNPONNM4 == 100*PONNM4/PONNMA

"

172:    PNPONNM5 == 100*PONNM5/PONNMA

173:    PNPONNM6 == 100*PONNM6/PONNMA

174:    PNPONNF1 == 100*PONNF1/PONNFE

175:    PNPONNF2 == 100*PONNF2/PONNFE

176:    PNPONNF3 == 100*PONNF3/PONNFE

177:    PNPONNF4 == 100*PONNF4/PONNFE

178:    PNPONNF5 == 100*PONNF5/PONNFE

179:    PNPONNF6 == 100*PONNF6/PONNFE

LABOR MARKET

Labor Supply

180:    LSNN = LFPRNNM3*BEPONNM3+LFPRNNM4*BEPONNM4+LFPRNNM5*BEPONNM5+
        LFPRNNM6*BEPONNM6+LFPRNNF3*BEPONNF3+LFPRNNF4*BEPONNF4+LFPRNNF5*
        BEPONNF5+LFPRNNF6*BEPONNF6

181:    LSNA = LFPRNAM3*BEPONAM3+LFPRNAM4*BEPONAM4+LFPRNAM5*BEPONAM5+
        LFPRNAM6*BEPONAM6+LFPRNAF3*BEPONAF3+LFPRNAF4*BEPONAF4+LFPRNAF5*
        BEPONAF5+LFPRNAF6*BEPONAF6

Labor Demand

182:    LDPLONSK == EMPLONSK*(1-SNPLONSK)

183:    LDPLONNS == EMPLONNS*(1-SNPLONNS)

184:    LDPSONSK == EMPSONSK*(1-SNPSONSK)

185:    LDPSONNS == EMPSONNS*(1-SNPSONNS)

186:    LDPLOFSK == EMPLOFSK*(1-SNPLOFSK)

187:    LDPLOFNS == EMPLOFNS*(1-SNPLOFNS)

188:    LDPSOFSK == EMPSOFSK*(1-SNPSOFSK)

189:    LDPSOFNS == EMPSOFNS*(1-SNPSOFNS)

190:    LDPJNS == LDPLONNS+LDPLOFNS+LDPSONNS+LDPSOFNS

191:    LDPJSK == LDPLONSK+LDPLOFSK+LDPSONSK+LDPSOFSK

192: LDSK == LDPJSK

193: LOWS == EMBA+EMSU+EMGO+LDPJNS

Skilled Labor Market

194: LSSK = LSSK(-1)+TN+IMMGLASK(-1)+OUMGLASK(-1)

195: LSSKBE == LSSK(-1)+IMMGLASK(-1)+OUMGLASK(-1)

196: LSNSBE == LSNA+LSNN-LSSKBE

197: EDSKBE == LDSK-LSSKBE "

198: TN = IF LDSK LT LSSKBE THEN O ELSE (IF TNPAED*EDSKBE LT TNPANS*
LSNSBE THEN TNPAED*EDSKBE ELSE TNPANS*LSNSBE)

199: EDSK = = LDPJSK-LSSK

Nonskilled Labor Market

200: LSNS == LSNA+LSNN-LSSK+(IF EDSK LT O THEN -EDSK ELSE O)

201: ED == IF LDNS-LSNS*(1-LWUNRA) GT O THEN LDNS-LSNS*(1-LWUNRA) ELSE
(IF LDNS-LSNS*(1-H IUNRA) LT O THEN LDNS-LSNS*(1 -HIUNRA) ELSE O)

Share of Employment of Each Type in Excess Demand

202: SEPLONSK == IF LDPJSK GTO THEN LOPLONSK/LOPJSK ELSE O

203: SEPLOFSK == IF LDPJSK GTO THEN LDPLOFSK/LDPJSK ELSE O

204: SEPSONSK == IF LDPJSK GT O THEN LDPSONSK/LDPJSK ELSE O

205: SEPSOFSK == IF LDPJSK GTO THEN LDPSOFSK/LDPJSK ELSE O

206: SEBA == IF LDNS GT O THEN EMBA/LDNS ELSE O

207: SEGO == IF LDNS GT O THEN EMGO/LDNS ELSE O

208: SESU == IF LDNS GT O THEN EMSU/LDNS ELSE O

209: SEPLONNS == IF LDNS GTO THEN LDPLONNS/LDNS ELSE O

210: SEPLOFNS == IF LDNS GT O THEN LDPLOFNS/LDNS ELSE O

211: SEPSONNS == IF LDNS GT O THEN LDPSONNS/LDNS ELSE O

212: SEPSOFNS == IF LDNS GT O THEN LDPSOFNS/LDNS ELSE O

Skilled Labor Immigration

213: IMMGLASK = IF EDSK GT O THEN (SEPLONSK*SRPLONSK+SEPLOFSK*SRPLOFSK+
SEPSONSK*SRPSONSK+SEPSOFSK*SRPSOFSK)*EDSK ELSE O

Nonskilled Labor Immigration

214: IMMGLANS = IF ED GT O THEN (SEBA+SESU+SEGO+SEPLONNS*SRPLONNS+
SEPLOFNS*SRPLOFNS+SEPSONNS*SRPSONNS+SEPSOFNS*SRPSOFNS9*EO ELSE O

Total Immigration of Labor

215: IMMGLA == IMMGLASK+IMMGLANS

Outmigration of Labor and Dependents

216: OUMGLANN = IF ED GT O THEN O ELSE OULAPANN*ED*(LSNN/LSNS)

217: OUMGLANA = IF ED GTO THEN O ELSE OULAPANA*ED*(LSNA/LSNS)

-218: OENN = BEPONNM1+BEPONNM2+BEPONNM3+BEPONNM4+BEPONNM5+BEPONNM6+
BEPONNF1+BEPONNF2+BEPONNF3+BEPONNF4+BEPONNF5+BEPONNF6-LSNN

219: OENA = BEPONAM1+BEPONAM2+BEPONAM3+BEPONAM4+BEPONAM5+BEPONAM6+
BEPONAF1+BEPONAF2+BEPONAF3+BEPONAF4+BEPONAF5+BEPONAF6-LSNA

220: OUMGDENN = IF ED GT O THEN O ELSE OUMGLANN*(DENN/LSNN)*OUDEPANN

221: OUMGDENA = IF ED GT O THEN O ELSE OUMGLANA*(DENA/LSNA)*OUDEPANA

222: OUMGLA == OUMGLANN+OUMGLANA

223: OUMGLASK = IF EOSK GT O THEN O ELSE EDSK/LSNS*OUMGLA

-22.4: OULANNM3 = IF ED GT O THEN O ELSE LFPRNNM3*BEPONNM3/LSNN*OUMGLANN

225: OULANNM4 = IF ED GT O THEN O ELSE LFPRNNM4*BEPONNM4/LSNN*OUMGLANN

22.6: OULANNM5 = IF ED GT O THEN O ELSE LFPRNNM5*BEPONNM5/LSNN*OUMGLANN

227: OULANNM6 = IF ED GT O THEN O ELSE LFPRNNM6*BEPONNM6/LSNN*OUMGLANN

22B: OULANNF3 = IF ED GT O THEN O ELSE LFPRNNF3*BEPONNF3/LSNN*OUMGLANN

229: OULANNF4 = IF ED GT O THEN O ELSE LFPRNNF4*BEPONNF4/LSNN*OUMGLANN

230: OULANNF5 = IF ED GT O THEN O ELSE LFPRNNF5*BEPONNF5/LSNN*OUMGLANN

231: OULANNF6 = IF ED GT O THEN O ELSE LFPRNNF6*BEPONNF6/LSNN*OUMGLANN

232: OULANAM3 = IF ED GT O THEN O ELSE LFPRNAM3*BEPONAM3/LSNA*OUMGLANA

233: OULANAM4 = IF ED GT O THEN O ELSE LFPRNAM4*BEPONAM4/LSNA*OUMGLANA

234: OULANAM5 = IF ED GT O THEN O ELSE LFPRNAM5*BEPONAM5/LSNA*OUMGLANA

235: OULANAM6 = IF ED GT O THEN O ELSE LFPRNAM6*BEPONAM6/LSNA*OUMGLANA

236: OULANAF3 = IF ED GT O THEN O ELSE LFPRNAF3*BEPONAF3/LSNA*OUMGLANA

237: OULANAF4 = IF ED GT O THEN O ELSE LFPRNAF4*BEPONAF4/LSNA*OUMGLANA

238: OULANAF5 = IF ED GT O THEN O ELSE LFPRNAF5*BEPONAF5/LSNA*OUMGLANA

239: OULANAF6 = IF ED GT O THEN O ELSE LFPRNAF6*BEPONAF6/LSNA*OUMGLANA

240: OUDENNM1 = IF ED GT O THEN CI ELSE BEPONNM1/DENN*OUMGDENN

241: OUDENNM2 = IF ED GT O THEN O ELSE BEPONNM2/DENN*OUMGDENN

242: OUDENNM3 = IF ED GT O THEN O ELSE (1-LFPRNNM3)*BEPONNM3/DENN*
OUMGDENN

243: OUDENNM4 = IF ED GT O THEN O ELSE (1-LFPRNNM4)*BEPONNM4/DENN*
OUMGDENN

244-: OUDENNM5 = IF ED GT O THEN O ELSE (1-LFPRNNM5)*BEPONNM5/DENN*
OUMGDENN

245: OUDENNM6 = IF ED GT O THEN O ELSE (1-LFPRNNM6)*BEPONNM6/DENN*
OUMGDENN

246: OUDENNF1 = IF ED GT O THEN O ELSE BEPONNF1/DENN*OUMGDENN

247: OUDENNF2 = IF ED GT O THEN O ELSE BEPONNF2/DENN*OUMGDENN

248: OUDENNF3 = IF ED GT O THEN O ELSE (1-LFPRNNF3)*BEPONNF3/DENN*
OUMGDENN

249: OUDENNF4 = IF ED GT O THEN O ELSE (1-LFPRNNF4)*BEPONNF4/DENN*
OUMGDENN

250: OUDENNF5 = IF ED GT O THEN O ELSE (1-LFPRNNF5)*BEPONNF5/DENN*
OUMGDENN

251: OUDENNF6 = IF ED GT O THEN O ELSE (1-LFPRNNF6)*BEPONNF6/DENN*
OUMGDENN

252: OUDENAM1 = IF ED GT O THEN O ELSE BEPONAM1/DENA*OUMGDENA

253:     OUDENAM2 = IF ED GT 0 THEN 0 ELSE BEPONAM2/DENA*OUMGDENA

254:     OUDENAM3 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAM3)*BEPONAM3/DENA*
         OUMGDENA

255:     OUDENAM4 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAM4)*BEPONAM4/DENA*
         OUMGDENA

256:     OUDENAM5 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAM5)*BEPONAM5/DENA*
         OUMGDENA

257:     OUDENAM6 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAM6)*BEPONAM6/DENA*
         OUMGDENA

258:     OUDENAF1 = IF ED GT 0 THEN 0 ELSE BEPONAF1/DENA*OUMGDENA

259:     OUDENAF2 = IF ED GT 0 THEN 0 ELSE BEPONAF2/DENA*OUMGDENA

260:     OUDENAF3 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAF3)*BEPONAF3/DENA*
         OUMGDENA

261:     OUDENAF4 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAF4)*BEPONAF4/DENA*
         OUMGDENA

262:     OUDENAF5 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAF5)*BEPONAF5/DENA*
         OUMGDENA

263:     OUDENAF6 = IF ED GT 0 THEN 0 ELSE (1-LFPRNAF6)*BEPONAF6/DENA*
         OUMGDENA

Endogenous Migrationby Age. Sex, and Race ─────────

264:     MGNNM1 = IF ED GT 0 THEN IMMGLA*MGPANNM1 ELSE OUDENNM1

265:     MGNNM2 = IF ED GT 0 THEN IMMGLA*MGPANNM2 ELSE OUDENNM2

266:     MGNNF1 = IF ED GT 0 THEN IMMGLA*MGPANNF1 ELSE OUDENNF1

267:     MGNNF2 = IF ED GT 0 THEN IMMGLA*MGPANNF2 ELSE OUDENNF2

268:     MGNNM3 = IF ED GT 0 THEN IMMGLA*MGPANNM3 ELSE OULANNM3+OUDENNM3

269:     MGNNM4 = IF ED GT 0 THEN IMMGLA*MGPANNM4 ELSE OULANNM4+OUDENNM4

270:     MGNNM5 = IF ED GT 0 THEN IMMGLA*MGPANNM5 ELSE OULANNM5+OUDENNM5

271:     MGNNM6 = IF ED GT 0 THEN IMMGLA*MGPANNM6 ELSE OULANNM6+OUDENNM6

272:     MGNNF3 = IF ED GT 0 THEN IMMGLA*MGPANNF3 ELSE OULANNF3+OUDENNF3

273:     MGNNF4 = IF ED GT 0 THEN IMMGLA*MGPANNF4 ELSE OULANNF4+OUDENNF4

274:     MGNNF5 = IF ED GT O THEN IMMGLA*MGPANNF5 ELSE OULANNF5+OUDENNF5

275:     MGNNF6 = IF ED GT O THEN IMMGLA*MGPANNF6 ELSE OULANNF6+OUDENNF6

276:     MGNAM1 = IF ED GT O THEN IMMGLA*MGPANAM1 ELSE OUDENAM1

277:     MGNAM2 = IF ED GT O THEN IMMGLA*MGPANAM2 ELSE OUDENAM2

278:     MGNAF1 = IF ED GT O THEN IMMGLA*MGPANAF1 ELSE OUDENAF1

279:     MGNAF2 = IF ED GT O THEN IMMGLA*MGPANAF2 ELSE OUDENAF2

280:     MGNAM3 = IF ED GT O THEN IMMGLA*MGPANAM3 ELSE OULANAM3+OUDENAM3

281:     MGNAM4 = IF ED GT O THEN IMMGLA*MGPANAM4 ELSE OULANAM4+OUDENAM4

282:     MGNAM5 = IF ED GT O THEN IMMGLA*MGPANAM5 .ELSE OULANAM5+OUDENAM5

283:     MGNAM6 = IF ED GT O THEN IMMGLA*MGPANAM6 ELSE OULANAM6+OUDENAM6

284:     MGNAF3 = IF ED GTO THEN IMMGLA*MGPANAF3 ELSE OULANAF3+OUDENAF3

285:     MGNAF4 = IF ED GT O THEN IMMGLA*MGPANAF4 ELSE OULANAF4+OUDENAF4

286:     MGNAF5 = IF ED GT O THEN IMMGLA*MGPANAF5 ELSE OULANAF5+OUDENAF5

287:     MGNAF6 = IF ED GT O THEN IMMGLA*MGPANAF6 ELSE OULANAF6+OUDENAF6

288:     MGNN == MGNNM1+MGNNM2+MGNNF3+MGNNF4+MGNNF5+MGNNF6+MGNNF1+MGNNF2+
MGNNF3+MGNNF4+MGNNF5+MGNNF6

289:     MGNA == MGNAM1+MGNAM2+MGNAM3+MGNAM4+MGNAM5+MGNAM6+MGNAF1+MGNAF2+
MGNAF3+MGNAF4+MGNAF5+MGNAF6

290:     IM == MGNN+MGNA

291:     IMLA == IF ED GT O THEN IMMGLA ELSE OUMGLA

292:     IMDE == IM-IMLA

PROJECT EMPLOYMENT IDENTITIES

293:     EMPJSK == EMPLONSK+EMPSONSK+EMPLOFSK+EMPSOFSK

294:     EMPJNS == EMPLONNS+EMPSONNS+EMPLOFNS+EMPSOFNS

295:     EMPJ == EMPJSK+EMPJNS

296:     CPSK == IF EMPJSK GT O THEN (CPPLONSK*EMPLONSK+CPPSONSK*EMPSONSK+
         CPPLOFSK*EMPLOFSK+CPPSOFSK*EMPSOFSK)/EMPJSK ELSE O

297:     CPNS == IF EMPJNS GT O THEN (CPPLONNS*EMPLONNS+CPPSONNS*EMPSONNS+
         CPPLOFNS*EMPLOFNS+CPPSOFNS*EMPSOFNS)/EMPJNS ELSE O

298:     EMREPJSK == IF EOSK LT O THEN LDPJSK-EDSK+IMMGLASK

299:     EMREPJNS == IF Eo LT O THEN LDPJNS-ED+IMMGLANS

300:     EMCOPJSK == (EMPSONSK-LDPSONSK)*CPPSONSK+(EMPSOFSK-LDPSOFSK)*
         CPPSOFSK+(EMPLONSK-LDPLONSK)*CPPLONSK+(EMPLOFSK-LDPLOFSK)*
         CPPLOFSK+(IF LOPJSK GT O THEN (LDPJSK-EMREPJSK)*(LDPSONSK*
         CPPSONSK+LOPSOFSK*CPPSOFSK+LOPLONSK*CPPLONSK+LOPLOFSK*CPPLOFSK)/
         LDPSJK ELSE O)

301:     EMCOPJNS == (EMPSONNS-LDPSONNS)*CPPSONNS+(EMPSOFNS-LDPSOFNS)*
         CPPSOFNS+(EMPLONNS-LDPLONNS)*CPPLONNS+(EMPLOFNS-LDPLOFNS)*
         CPPLOFNS+(IF LDPJNS GT O THEN (LDPJNS-EMREPJNS)*(LDPSONNS*
         CPPSONNS+LOPSOFNS*CPPSOFNS+LOPLONNS*CPPLONNS+LOPLOFNS*CPPLOFNS)/
         LDPJNS ELSE O)

302:     EMENPJSK == EMPJSK-EMREPJSK-EMCOPJSK

303:     EMENPJNS == EMPJNS-EMREPJNS-EMCOPJNS

304:     EMREPJ == EMREPJSK+EMREPJNS

305:     EMENPJ == EMENPJSK+EMENPJNS

306:     EMCOPJ == EMCOPJSK+EMCOPJNS

APPENDIX D

UNALASKA TECHNICAL APPENDIX

In this appendix, we present estimates of 1980 employment, income, and labor force participation in Unalaska, upon which we base the assumptions for our RAM model projections. We also discuss our assumptions for future fishing industry employment.

Employment

There is no single source of data which provides a reliable breakdown of employment in Unalaska into the categories which are required for developing our RAM model assumptions. Tables D-1 and D-4 provide employment data from several different sources, which we use in developing our RAM model assumptions. The differences between these tables illustrate the problems in describing employment in Unalaska.

Table D-1 shows employment data for the Aleutian Islands Census Division collected by the Alaska Department of Labor. These data do not include most fishing employment, nor are they limited to Unalaska. However, they are useful in that they provide an indication of the seasonality associated with fish processing employment (manufacturing). Employment in this sector during the third quarter was more than double employment during the first quarter. This seasonality should be kept in mind when interpreting our employment projections, which are for full-time equivalent employment.

TABLE D-1
NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT
ALEUTIAN ISLANDS CENSUS DIVISION, 1980

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	1980 Average	Seasonality Factor (a)
Total Non-agricultural	2,680	3,266	3,941	3,565	3,363	.75
Mining	0[b]	0	0	0	0	−
Construction	33	124	204	97	115	.16
Manufacturing	1,124	1,596	2,271	1,890	1,720	.49
Transportation, Utilities	80	87	88	104	90	.77
Wholesale Trade[b]	6	29	17	22	19	.21
Retail Trade	99	106	107	110	105	.90
Finance, Insurance, and Real Estate	44	79	105	77	76	.42
Services	192	150	159	108	152	.56
Federal Government	661	672	695	677	676	.95
State & Local Government	433	423	295	480	-577	.61
Miscellaneous	8	*	*	*	‒	‒

*Not shown to avoid disclosure of data for individual firms. "

[a] Lowest quarterly employment/highest quarterly employment.

[b] Data in these categories not disclosed due to confidentiality requirements. Mining employment assumed to be zero for first quarter; wholesale trade figures assumed to equal total undisclosed employment.

SOURCE: Alaska Department of Labor, Statistical Quarterly, 1980, I-IV, p. 9.

Table D-2 shows selected employment-related data from the 1980 Census. Unfortunately, these data do not distinguish between residents and nonresidents; in addition, they are based on only a sample of the Unalaska population, and they represent employment at only one point in time.

Table D-3 shows estimates prepared by Alaska Consultants of average annual full-time employment in Unalaska in 1980. These data do not distinguish between resident and nonresident employment, which makes the figures for commercial fishing and manufacturing less useful in developing RAM model assumptions. However, we believe that the data for employment in other sectors are the best available.

The data on insured employment shown in Table D-4 help to illustrate the seasonality of employment in Unalaska. The annual average employment figures appear to be considerably lower than those in Table D-4, perhaps because insured employment data do not-include self-employed persons or most fishermen.

Table D-5 shows the 1980 employment assumptions which we used as a basis for our RAM model projections. Below, we describe how we arrived at these assumptions.

We assume the levels of support employment and government employment given by Alaska" Consultants in Table D-3, and we base our breakdown of this employment into exogenous and non-exogenous categories on

Civilian Employed Workers by Industry

Agriculture, Forestry, Fishing, and Mining	70
Construction	25
Manufacturing: Nondurables	610
Manufacturing: Durables	20
Transportation	47
Communication and Public Utilities	3
Wholesale Trade	2
Retail Trade	78
Finance, Insurance, and Real Estate	2
Business and Repair Services	18
Personal, Entertainment and Recreation Services	19
Professional Health Services	12
Professional Education Services	35
Other Professional Services	10
Public Administration	52
TOTAL	**1,003**

Civilian Employed Workers by Kind of Employer

Government	115
Federal	26
State	38
Local	51
Private other than self	859
Self	29
Unpaid (usually work for family)	0
TOTAL	**1,003**

Employed Workers Claiming Farming, Forestry, or Fishing as Occupation

	71

Military Employment

	2

Population Living in Group Quarters

	508

SOURCE: Special Tabulations for 1980 Census, from U.S. Bureau of the Census, Tape ST≤3A, Tabulations 55, 65, 66, and 67. Figure for population living in group quarters from special ISER census tabulations.

TABLE D-3
AVERAGE ANNUAL FULL-TIME EMPLOYMENT
CITY OF UNALASKA, 1980[a]

Classification	Number	Exogenous[b]	Endogenous
Commercial Fishing	150	150	0
Mining	2	2	0
Contract Construction	12	5	7
Manufacturing	1,166	1,166	0
Transportation, Communication & Public Utilities	57	34	23
Trade	60	32	-28
Finance, Insurance & Real Estate	27	20	7
Services	44	27	17
Government	82	6	76
Federal	(9)	(4)	(5)
State	(10)	(2)	(8)
Local	(64)	(0)	(64)
TOTAL	1,600	1,442	158

[a]Includes self-employed persons and military personnel.

[b]We use the terms "exogenous" and "endogenous" in place of the terms "basic" and "secondary" which were used by Alaska Consultants.

SOURCE: Alaska Consultants, Inc., St. George Basin Petroleum Development Scenarios: Local Socioeconomic Systems Analysis, Social and Economic Studies Program Technical Report No. 59 (Anchorage, Minerals Management Service, Alaska OCS Office, 1981), p. 16.

TABLE D-4
INSURED EMPLOYMENT BY MONTH[a]
CITY OF UNALASKA, 1979

Employment Sector	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual Average
Agriculture. Forestry and Fisheries	*	*	*	0	0	0	0	0	0	0	0	0	*
Mining	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Construction	*	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	393	547	801	881	1,169	1,161	767	664	1,153	1,197	1,003	482	852
Transportation, Communication & Public Utilities	8	8	9	12	14	13	19	26	21	29	29	30	18
Trade	39	35	38	36	38	37	33	38	43	60	49	50	41
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*	*
Service	25	24	29	32	37	34	30	27	24	24	24	26	28
Government	91	87	88	79	81	52	51	60	88	90	91	94	79
Federal	(24)	(23)	(23)	(20)	(21)	(20)	(20)	(21)	(21)	(19)	(19)	(20)	(21)
State	(1)	(1)	(1)	(1)	(1)	(1)	(0)	(0)	(1)	(1)	(2)	(2)	(1)
Local	(66)	(63)	(64)	(58)	(59)	(31)	(31)	(39)	(66)	(70)	(70)	(72)	(57)
TOTAL	570	719	986	1,066	1,368	1,328	922	841	1,357	1,429	1,224	710	1,043

* Employment figures withheld to comply with disclosure regulations.

[a] Insured employment excludes all self-employed persons and most fishermen.

SOURCE: Alaska Department of Labor, Employment Security Division, Research and Analysis Section. Reprinted from Alaska Consultants, Inc., Social and Economic Studies Program Technical Report No. 59 [Anchorage, Minerals Management Service, Alaska OCS Office, 1981), p. 19.

<u>Resident Basic Employment</u>	**<u>110</u>**
Resident Fishing Employment	**50**
Resident Fish Processing Employment	58
Nonfishing-related Basic Employment	**2**
<u>Resident Support Employment</u>	200
Exogenous Support Employment	**59**
Endogenous Support Employment	**82**
Government-sponsored Support Employment	**0**
Enclave-sponsored Support Employment	**59**
<u>Resident Government **Employment**</u>	**82**
Exogenous Government Employment	**6**
Endogenous Government Employment	**76**
Total Resident Employment	**392**
<u>Non-OCS **(Fish** Processing) Enclave Employment</u>	1,108
<u>Military Enclave Employment</u>	0
<u>Total Resident and Nonresident Employment</u>	1,500

Alaska Consultants' breakdown.   Thus, we assume government employ-
ment of 82, of which 76 jobs are endogenous and 6 are exogenous.

We assume total support employment of 200, which includes employment
in contract construction; transportation, communication, and public
utilities; trade; finance, insurance, and real estate; and services.
We arbitrarily assume government-sponsored support employment (a
special RAM model category used for government-supported
construction projects) to be zero. We assume endogenous support
employment of 82, the sum of endogenous employment in the five
"support" categories from Table D-3. The support employment which
Alaska Consultants counted as "exogenous" includes that which we
usually categorize as "enclave-generated", that is, support
employment generated by the fish processing industry. We
arbitrarily assume that half of the 118 remaining support jobs are
"exogenous support" and half are "enclave-generated support" jobs.

We assume nonfishing-related basic employment of 2, based on this
figure for mining employment in Table D-3.

We assume resident fishing employment of 50. This is lower than "-"
Alaska Consultants' fishing employment figure of 150 shown in
Table D-3.   However, Alaska Consultants arrived at their fishing
employment figure using information as to the number of crab
fishermen registered out of Unalaska (Alaska Consultants, p. 15).

This probably includes a significant number of persons who are not residents of Unalaska. According to Alaska Consultants, "almost all the employees in these two categories (fishing and fish processing) are transient" (p. 17). According to Petterson et al., "As a group, locals . . . are very underrepresented in the harvesting of marine products. Altogether, probably less than a dozen boats are owned by local fishermen. Crews on these boats consist either of family members or' close friends." We base our assumption of resident fishing employment of 50 upon th's description.. The 1980 U.S. Census counted 71 employed workers claiming "farming, forestry, or fishing" as an occupation, which is a reasonably similar figure (Table D-2).

Based on Alaska Consultants' estimate in Table D-3, we assume total fish processing employment of 1,166, which must be divided between resident employment and enclave or nonresident employment. We assume that 95 percent of this employment is nonresident. This is based on Alaska Consultants' characterization of most employment in fish processing as transient, and the description of the processing sector in Petterson et al. (pp. 102-108). Thus, we assume resident fish processing employment of 58 and nonresident fish processing employment of 1,108. The nonresident employment figure "compares -- Reasonably well with the nonresident population figures for 1977 and 1981 of 1,256 and 890, given in Table II-1. Note, in addition, that if we subtract 'the census figure of 598 for population living -in group quarters (a rough measure of nonresident fish processing

employment) from total manufacturing employment of 630, this leaves a rough measure of resident fish processing employment of only 32. This compares favorably with our figure for resident fish processing employment.

Future Fishing Employment Assumptions

Our assumptions about future fishing employment are a key factor in our projections of future employment and population in Unalaska. The RAM model requires three different kinds of fishing employment assumptions--resident fishing, resident fish processing, and nonresident or enclave fish processing. In order to develop our assumptions about future fishing employment, we distinguish between employment associated with potential future bottomfish-related development and all other fishing employment, which we refer to as "traditional" fishing employment.

Our figures in Table D-5 show our estimates of "traditional" fishing employment in 1980. Most of this employment was associated with the harvesting and processing of King crab and Tanner crab. We do not have data for fishing employment after 1980. However, as shown in Table D-6, crab harvests have declined dramatically-since 1980 in the Dutch Harbor and Bering Sea registration areas. In 1982, the crab harvest in these two areas was only about 20 percent of the 1980 level, and it is likely that the 1983 harvest is even lower since parts of these areas are totally closed to king crab fishing. Therefore, we expect that fish processing employment in Unalaska has also declined significantly.

TABLE O-6
CRAB CATCH IN SELECTED WESTERN ALASKA REGIONS
1978-1982 (thousands of pounds]

| | Dutch Harbor | | Bering Sea | | | Index |
	King Crab	Tanner Crab	King Crab	Tanner Crab	Total	(1980 = 1)
1978	6,824	2,430	94,014	67,944	171,212	.72
1979	14,980	1,280	13,823	73,975	204,058	.86
1980	18,903	886	140,918	76,131	2.36,838	1.00
1981	5,115	655	42,672	82,482	130,914	.55
1982	43	740	7,406	40,360	48,819	.21

NOTES: In the Bering Sea, king crab are Red King Crab for Bristol Bay and Blue King
Crab for the rest of the Bering Sea; Tanner Crab include both C. bairdi and
C. opilio; In Dutch Harbor area, king crab are Red King Crab and Tanner Crab are
C. bairdi; 1980 refers to 1980-81 season for King Crab and 1979-80 season for
Tanner Crab, etc.

SOURCE: Alaska Department of Fish and Game, Westward Region Shellfish Report to the
Alaska Board of Fisheries (Kodiak, March 1983).

For our RAM model projections, we assumed that the decline in crab harvests has primarily affected nonresident or enclave employment in Unalaska rather than resident fishing or fish processing employment. In order to project current and future enclave employment in traditional fish processing, we developed the index shown in Table D-7. This shows the assumed harvest level for our low, medium, and high base cases as a share of the 1980 harvest level. In the low case, we assumed that harvests rise from their current low levels only gradually and stabilize at only 30 percent of their peak 1980 levels. In the medium case, we assumed that harvests rise somewhat more rapidly and stabilize at 70 percent of their 1980 levels. In our high case, we assumed that harvests recover fairly rapidly to their 1980 levels. We used the index in Table D-7 to develop the traditional fishing enclave employment assumptions shown in Table D-8.

Table D-9 shows our bottomfishing employment assumptions. For all three cases, we assume gradual growth of bottomfishing employment during the 1980s and somewhat more rapid growth during the 1990s, with stable employment after 2000. However, our medium case assumptions show employment nearly four times as high as in the low case by 2000, and our high case assumptions show employment nearly three times as high as the medium case.

This great disparity between the three cases reflects the great uncertainty associated with bottomfish development in Unalaska.

TABLE D-7
TRADITIONAL FISHING INDUSTRY-RELATED EMPLOYMENT
ASSUMPTIONS INDEX (1980 = 1)

Date	Low Case	Medium Case	High Case
1980	1.00	1.00	1.00
1981	.55	.55	.55
1982	.21	.21	.21
1983	.15	.15	.15
1984	.15	.15	.20
1985	.15	.20	.30
1986	.15	.25	.40
1987	.15	.30	.50
1988	.15	.35	.60
1989	.20	.40	.70
1990	.25	.45	.80
1991	.30	.50	.90
1992	.30	.55	1.00
1993	.30	.60	1.00
1994	.30	.65	1.00
1995	.30	.70	1.00
1996	.30	.70	1.00
1997	.30	.70	1.00
1998	.30	.70	1.00
1999	.30	.70	1.00
2000	.30	.70	1.00
2001	.30	.70	1.00
2002	.30	.70	1.00
2003	.30	.70	1.00
2004	.30	.70	1.00
2005	.30	.70	1.00
2006	.30	.70	1.00
2007	.30	.70	1.00
2008	.30	.70	1.00
2009	.30	.70	1.00
2010	.30	.70	1.00

TABLE D-8
TRADITIONAL FISHING EMPLOYMENT ASSUMPTIONS

Date	Resident Fishing Employment	Resident Fish Processing Employment	Nonresident or Enclave Fish Processing Employment		
			L	M	H
1980	50	58	1,109	1,108	1,108
1981	50	58	609	609	609
1982	50	58	233	233	233
1983	50	58	166	166	166
1984	50	58	166	166	222
1985	50	58	166	222	332
1986	50	58	166	277	443
1987	50	58	166	332	554
1988	50	58	166	388	665
1989	50	58	222	443	776
1990	50	58	277	499	886
1991	50	58	332	554	997
1992	50	58	332	609	1,108
1993	50	58	332	665	1,108
1994	50	58	3 3 2	720	1,108
1995	50	58	332	776	1,108
1996	50	58	332	776	1,108
1997	50	58	332	776	1,108
1998	50	58	332	776	1,108
1999	50	58	332	776	1,108
2000	50	58	332	776	1,108
2001	50	58	332	776	1,108
2002	50	58	332	776	1,108
2003	50	58	332	776	1,108
2004	50	58	332	776	1,108
2005	50	58	332	776	1,108
2006	50	58	332	776	1,108
2007	50	58	332	776	1,108
2008	50	58	332	776	1,108
2009	50	58	332	776	1,108
2010	50	58	332	776	1,108

TABLE D-9
BOTTOMFISHING EMPLOYMENT ASSUMPTIONS

Date	Resident Fishing Employment			Resident Fish Processing Employment			Nonresident or Enclave Fish Processing Employment		
	L	M	H	L	M	H	L	M	H
1980	0	0	0	0	0	0	0	0	0
1981	0	0	0	0	0	0	0	0	0
1982	0	0	0	0	0	0	0	0	0
1983	0	0	0	0 ·	0	0	0	o	0
1984	2	2	2	4	4	4	20	20	20
1985	4	4	4	8	8	8	40	40	90
1986	6	6	10	12	12	20	60	60	60
1987	8	8	20	16	16	40	80	80	100
1988	10	10	30	20 .	20	60	·100	100	150
1989	12	15	40	24	30	80	120	150	200
1990	14	20	50	28	40	100	140	200	250
1991	16	30	75	32	60	150	160	300	375
1992	18	40	100	36	80	200	180	400	500
1993	20	50	125	40	100	250	200	500	625
1994	22?	60	150	44	120	300 "	220	600	750
1995	24	70	175	48	170	350	240	700	875 -
1996	25	80	200	50	160	4 0 0	250	800	1,000
1997	25	90	250	50	180	500	250	900	1,250
1998	25	100	300	50	200	600	250	1,000	1,500
1999	25	100	330	50	200	700	250	1,000	1,750
2000	25	100	400	50	200	800	250	1,000	2,000
2001	25	100	400	50	200	800	250	1,000	2,000
2002	25	100	400	50	200	800	250	1,000	2,000
2003	25	100	400	50	200	800	250	1,000	2,000
2004	25	100	400	50	200	800	250	1,000	2,000
2005	25	100	400	50	200	800	250	1,000	2 , 0 0 0
2006	25	100	400	50	200	800	250	1,000	2,000 -
2007	25	100	400	50	200	800	250	1,000	2,000
2008	25	100	400	50	200	800	250-	1,000	2,000 --
2009	25	100	400	50	200	800	250	1,000	2,000 -
2010	25	100	400	50	200	800	250	1,000	2,000 -

Areas of uncertainty include the size of future American harvests, the share of those harvests which will be processed onshore, the share of onshore processing which will take place in Unalaska as opposed to other Aleutian communities, and the share of processing employees in Unalaska who will become residents of the community. We did not attempt to thoroughly evaluate each of these factors in deriving our employment assumptions; we simply chose what appeared to be reasonable levels of employment associated with low, medium, or high future bottomfish processing activity in Unalaska. The figures for our three different cases are within the range of figures which have been suggested for possible bottomfishing employment in Unalaska. For example, Petterson et al. assumed bottomfish manufacturing employment of 1,725 in 2000, based on catch and employment assumptions provided by the Minerals Management Service (page 205]. In contrast, for our medium case, we assumed total bottomfish processing employment of 1,200.

Table D-10 shows our RAM model fishing and fish processing employment "assumptions, which we obtained by adding our traditional fishing employment assumptions in Table D-8 to our bottomfish employment assumptions in Table D-9.

Labor Force Participation

Table D-11 provides data on employment by race and sex from the 1980 U.S. Census. We estimated employment rates for Native and non-Native males and females by comparing the employment figures with the census population data.

TABLE D-10
RAM MODEL FISHING EMPLOYMENT ASSUMPTIONS

Year	Resident Fishing Employment (EMFI)			Resident Fish-processing Employment (EMFP)			Nonresident or Enclave Fish Processing Employment (EMEN)		
	L	M	H	L	M	H	L	M	H
1980	50	50	50	58	58	58	1108	1108	1108
1981	50	50	50	58	58	58	609	609	609
1982	50	50	50	58	58	58	233	233	233
1983	50	50	50	58	58	58	166	166	166
1984	52	52	52	62	62	62	186	186	186
1985	54	54	54	66	66	66	206	262	412
1986	56	56	60	70	70	78	226	337	503
1987	58	58	70	74	74	98	246	412	654
1988	60	60	80	78	78	118	266	488	815
1989	62	65	90	82	88	138	342	593	976
1990	64	70	100	86	98	158	417	699	1136
1991	66	80	125	90	118	208	492	854	1372
1992	68	90	150	94	138	258	512	1009	1608
1993	70	100	175	98	158	308	532	1165	1733
1994	72	110	200	102	178	358	552	1320	1858.
1995	74	120	225	106	198	408	572	1476	1983
1996	75	130	250	108	218	458	582	1576	2108
1997	75	140	300	108	238	558	582	1676	2358
1998	75	150	350	108	258	658	582	1776	2608
1999	75	150	400	108	258	758	582	1776	2858
2000	75	150	450	108	258	858	582	1776	3108
2001	75	150	450	108	258	858	582	1776	3108
2002	75	150	450	108	258	858	582	1776	3108
2003	75	150	450	108	258	858	582	1776	3108
2004	75	150	450	108	258	858	582	1776	3108
2005	75	150	450	108	258	858	582	1776	3108
2006	75	150	450	108	258	858	582	1776	3108
2007	75	150	450	108	258	858	582	1776	3108
2008	75	150	450	108	258	858	582	1776	3108
2009	75	150	450	108	258	858	582	1776	3108
2010	75	150	450	108	258	858	582	1776	3108

TABLE D-11
EMPLOYMENT STATUS OF PERSONS
AGED 16 AND OVER
UNALASKA, 1980

	Total Male	Total Female	Non-Native[a] Male	Non-Native[a] Female	Native	Native
Civilian Employed	718	285	657	259	61	26
Armed Forces	0	3	0	3	0	0
Unemployed	25	5	4	5	21	0
Not in Labor Force	26	81	9	57	17	24
TOTAL	769	374	670	324	99	50
Employment Rate[b]	.93	.77	.98	.81	.62	.52

[a]Calculated by subtracting Native figures from total figures.

[b](Civilian employment and armed forces)/Total.

SOURCE.: Bureau of the Census, 1980 Census Special Tabulation STF3A, Table 55.

For our RAM model projections, we assumed the labor force participation rates shown in Table D-12, based on our RAM model population assumptions (Table 11-4) and the figures in Table D-11.

Income

One measure of personal income for Unalaska may be obtained by multiplying the resident. population (assumed to be 724) by the average per capita income for the Aleutian Islands Census Division. The Alaska Department of Labor measured per capita income for the division as $9,511 in 1980 (Alaska Department of Labor, Alaska Planning Information, page 92). This method provides an estimate of . . total personal income of $6.9 million.

An alternative method is to multiply the full-time equivalent employment in each sector by an average wage for that sector. Table D-13 shows the average monthly wage for the basic, support, and government sectors for the Aleutian Islands Census Division. Using these figures, an estimated total annual wage income for" Unalaska in 1980 is $7.6 million.

We use the wage income estimates as the basis for our RAM model -- projections and assume per capita nonwage income of zero. -'

*

TABLE D-12
1980 LABOR FORCE PARTICIPATION ASSUMPTIONS
USED FOR RAM MODEL PROJECTIONS

Group	Population[a]	Employment	Employment Rate
Non-Native Males	237	237	1.0
Non-Native Females	111	89	.8
Native Males	74	44	.6
Native Females	43	22	.5
TOTAL	465	392	.84

[a]Includes persons aged 20-64.

TABLE D-13
CALCULATION OF AVERAGE MONTHLY EARNINGS
IN BASIC, SUPPORT, AND GOVERNMENT SECTORS,
ALEUTIAN ISLANDS CENSUS DIVISION, 1980 "

	Average Annual Employment	Average Monthly Wage	Average Tots 1 Monthly Earnings
Mining	0	0	
Manufacturing	1,720	1,469	2,526.680
Total Basic Sector	1,720	1,469a	2,526,680
Construction	115	3,845	442,175
Transportation, Communication, and Utilities	90	1,612	·145,080
Wholesale Trade	b	b	
Retail Trade	106	1,223	129,638
Finance, Insurance, and Real Estate	76	1,134	86,184
Services	152	1,051	159,752
Total Support Sector	539	1,786a	962,829
Federal Government	676	1,306	882,856
State and Local Government	408	1,662	678.096
Government Sector	1,084	1,440a	1,560,952

aSectoral wage rates calculated by dividing average total earnings by average employment.

bNot disclosed.

SOURCE: Alaska Department of Labor, Statistical Quarterly, 1980
I-IV.

APPENDIX E

COLD BAY TECHNICAL APPENDIX

In this appendix, we present estimates of employment, income, and
labor force participation in Cold Bay.   These estimates are the
basis for our RAM model assumptions.

Employment

There "are three different., recent sources of information on
employment in Cold Bay: the 1980 Census, estimates of employment in
1980 made by Alaska Consultants, and estimates of employment in 1982
made by Impact Assessment, Inc. These employment estimates are
presented in Tables E-I--E-3.

These three sources report total employment in Cold Bay of 162, 199,
and 154, respectively.   Both of the 1980 employment estimates
include significantly higher estimates of fishing and manufacturing
employment than do the 1982 estimates.   The higher 1980 estimates
-are probably due, in large part, to the fish processing venture of
the 13th Regional Corporation which has since been discontinued. -.

We feel that the census figures in Table E-1 are probably the least
reliable.   One reason is that they are based on only a sample of the
population which is not necessarily representative of the total
Cold 8ay work force.   (See John Kruse and Robert Travis, "A Tech-
nical Review of the 1980 U.S. Census in Alaska: Interviews with

TABLE E-1
SELECTED EMPLOYMENT-RELATED DATA
FROM 1980 CENSUS: COLD BAY

Civilian Employed Workers by Industry

Agriculture, Forestry, Fishing, and Mining	30
Construction	21
Manufacturing: Nondurable	0
Manufacturing: Durables	0
Transportation	20
Communication and Public Utilities	17
Wholesale Trade	0
Retail Trade	0
Finance, Insurance, and Real Estate	0
Business and Repair Services	0
Personal, Entertainment, and Recreation Services	18
Professional Health Services	7
Professional Education Services	0
Other Professional Services	0
Public Administration	32
TOTAL	**145**

Employed Workers Claiming Farming, Forestry, or Fishing as Occupation

7

Civilian Employed Workers by Kind of Employer

Government	60	
Federal		32
State		28
Local		0
Private other than self	81	
Self	4	
Unpaid (usually work for family)	0	
TOTAL	**145**	

Military Employment

17

Total Civilian and Military Employment

162

Note: Data were collected as of a given week during the spring of 1980. However, the particular week was not necessarily consistent for all households.

SOURCE: Special Tabulations for 1980 census, from U.S. Bureau of the Census, Tape STF3A, Tabulations 55, 65, 66, and 67 on file at the Institute of Social and Economic Research.

TABLE E-2
AVERAGE ANNUAL FULL-TIME EMPLOYMENT[a]
COLD BAY, ALASKA
1980

Classification	Number	Percent	Basic Percent	Basic Number	Secondary Number
Agriculture, Forestry, and Fishing	25.0	5.0	100	25.0	0.0
Mining	0.0	0.0	--	0.0	0.0
Contract Construction	0.0	0.0	--	0.0	0.O
Manufacturing	30.0	15.0	100	30.0"	0.0
Transportation, Communication, & Public Utilities	56.5	28.3	88	50.0	6.5
Trade	6.0	0.3	50	-3.0	3.0
Finance, Insurance, and Real Estate	0.0	0.0	--	0.0	0.0
Service	9.0	0.5	100	9.0	0.0
Government	73.0	36.6	88	64.5	8.5
Federal	(49.5)	(24.8)	(98)	(48.5-)	(1.0)
State	(19.0)	(9.5)	(84)	(16.0)	(3.0)
Local	(4.5)	(2.3)	(--)	(0.0)	(4.5)
TOTAL	199.5	100.0	91	181.5	18.0

[a]Includes 17 military personnel and 30 civilians resident at the Cold Bay Air Force Station.

SOURCE: Alaska Consultants, Inc., St. George Basin Petroleum Development Scenarios: Local Socioeconomic Systems Analysis, Social and Economic Studies Program Technical Report Number 59 (Anchorage, Bureau of Land Management OCS Office, May 1981), p. 108.

TABLE E-3
COLD BAY LABOR FORCE BY SECTOR: 1982

Industry	Total Employees			% of Total Labor Force		
Government	63			40.9		
Federal		43			27.9	
Federal Aviation Admin.			16			10.4
National Weather Service			5			3.2
Fish and Wildlife Service			4			2.6
U.S. Post Office			2			1.3
Federal Military (U.S. Air Force)		16			10.4	
State		19			12.3	
Department of Transportation			6			3.9
Department of Fish and Game			7			4.5
R.E.A.A.			5			3.2
Magistrate			1			0.7
Municipal	1			0.7		
Clerk			1			0.7
Private Employers	91			59.1		
Transportation		34			22.1	
Reeve Aleutian Airways			22			14.3
Peninsula Airlines			10			6.5
Cold Bay Truck Rental			2			1.3
Communications		31			20.1	
R.C.A.			28			18.2
Alascom			2			1.3
Interior Telephone Company			1			0.7
Service		18			11.7	
Flying Tigers Lines			16			10.4
Northern Power Company			2			1.3
Manufacturing/Processing		6			3.9	
Northern Peninsula Fisheries			5			3.2
Seawest			1			0.7
Construction		2			1.3	
Well Digger			1			0.7
Laborer			1			0.7
TOTAL	154			100.0		

SOURCE: John S. Petterson et al., Cold Bay: Ethnographic Study and Impact Analysis, Social and Economic Studies Program Technical Report Number 93 (Anchorage, Minerals Management Service Alaska OCS Office, August 1983), p. 88.

Census Workers," Anchorage, Institute of Social and Economic
Research, October 1981, for a discussion of other potential problems
with 1980 census data.)

The data in Table E-3 were collected most recently and probably
represent the best picture of current employment in Cold Bay. We
used this table in preparing our employment estimates for the base
projection year (1982) of the RAM model. These estimates are shown -- "
in Table E-4.

Income

There are no income data available specifically for Cold Bay. One
measure of personal income for Cold Bay may be obtained by
multiplying the population (228 persons) by the average per capita
income for the Aleutian Islands Census Division. The Alaska
Department of Labor measured average per capita income for the
census division as $9,511 in 1980 (Alaska Department of Labor,
Alaska Planning Information, p. 92). This method provides an
estimate of total personal income of $2.17 million.

An alternate method is to multiply FTE employment in each sector by
---an average wage for that sector. In Table E-5, the average monthly -'
wage for the basic, support, and government sectors are shown for
the Aleutian Islands Census Division.

TABLE E-4
1982 EMPLOYMENT ESTIMATES USED IN
DEVELOPING RAM MODEL ASSUMPTIONS
/   COLD BAY

Resident Basic Employment	6		
Fishing	0		
Fish Processing	6		
Other	0		
Resident Support Employment	85[a]		
Exogenous	71		
Endogenous	14		
Government sponsored	0		
Enclave Sponsored	0		
Resident Civilian Government Employment	63[b]		
Exogenous	54		
Nonmilitary		38	
Military		16	
Endogenous	9		
Total Resident Employment	154		

---

[a]We assume the following 14 support employees to be endogenous: 2 Cold Bay truck rental employees, 1 Interior Telephone employee, 1 Northern Power Company employee, 8 Flying Tiger Lines employees, 1 well digger, and 1 laborer.

[b]We assume the following government. employees to be endogenous: the municipal clerk, the 5 R.E.A.A. employees, 2 Department of Transportation employees, and 1 Post Office employee.

SOURCE: John S. Petterson et al., Cold Bay: Ethnographic Study and Impact Analysis, Social and Economic Studies Program Technical Report Number 93 (Anchorage, Minerals Management Service Alaska OCS Office, August 1983), p. 88.

TABLE E-5
CALCULATION OF AVERAGE MONTHLY EARNINGS
INBASIC, SUPPORT, AND GOVERNMENT SECTORS.
ALEUTIAN ISLANDS CENSUS DIVISION, 1980 "

	Average Annual Employment	Average Monthly Wage	Average Total Monthly Earnings
Mining	0	o	
Manufacturing	1,720	1,469	2.526.680
Total Basic Sector	1,720	1,469[a]	2,526,680
Construction	115	3,845	442,175
Transportation, Communication, and Utilities	90	1,612	145,080
Wholesale Trade	*		
Retail Trade	106	1,223	12%?,638
Finance, Insurance, and Real Estate	76	1,134	86,184
Services	152	1.051	159,752
Total Support Sector	539	1,786[a]	962,829
Federal Government	676	1,306	882,856
State and Local Government	408	1,662	678,096
Government Sector	1,084	1,440[a]	1,560,952

[a]Sectoral wage rates calculated by dividing average total earnings by average employment.

*Not disclosed.

SOURCE: Alaska Department of Labor, Statistical Quarterly, 1980 I-IV.

By multiplying the wage rates in these sectors by our employment estimates in Table E.4, we obtain an estimate of total personal income (excluding income of military and enclave workers) of $3.01 million, which is about 40 percent higher than our other estimate.

We chose the latter estimate as a basis for our RAM model assumptions because personal income is likely to be higher in Cold Bay than in other communities in the region due to full employment.

Labor Force Participation

According to Petterson et al. (1983), Cold Bay is a full employment community. Partly because of lack of housing other than that provided by employers, it is almost impossible to live in Cold Bay without being employed.

This is supported by the census data in Table E-6 which show 86 percent of males over age 16 and 70 percent of females over age 16 as employed.

For our RAM model projections, we assume 100 percent labor force participation among men aged 20 or older. We assume that these men account for 120 jobs. We assume that the remaining 34 resident jobs are held by women, which implies a labor force participation rate of 63 percent for women.

While these assumptions probably overestimate **male labor force** participation and underestimate female labor force participation, **we** feel that they are sufficiently accurate to provide a **basis** for our **RAM** model projections.

TABLE E-6
EMPLOYMENT STATUS OF PERSONS AGED 16 AND OVER
COLD BAY, 1980

	Male	**Female**
Civilian Employed	**91**	54
Armed Forces	**35**	0
Unemployed	**7**	o
Not in Labor Force	13	"23
Employment Ratea	**.86**	**.70**

ᵃ**(civilian** employment and armed **forces)/total.**

'--SOURCE: **Bureau** of the Census, <u>1980 Census Special Tabulation STF3A,</u> Table 55.

E-9

Appendix F

Technical Appendix: Sand Point

In this appendix we develop estimates of employment, income, and labor force participation in Sand Point for 1980.

Employment Data

There is no single data source which provides a complete description, of 1980 employment in Sand Point. Tables F-1 and F-2 provide employment information from different sources.

There are a variety of alternative definitions of employment. The measure we have chosen is resident full-time equivalent (FTE) employment. FTE employment is a measure of total person-years of work. We believe it is the single most useful measure of employment in a community although, in a community such as Sand Point, seasonal variation is also an essential measure. Care is needed in interpreting FTE employment since it may vary greatly from actual employment at any particular time of the year.

Table F-1 provides selected data on employment collected in the 1980 census. These data were collected during a given week in the spring of 1980; therefore, they do not serve as a measure of full-time equivalent employment since persons unemployed at the time of the census may have been employed for substantial periods of time during other seasons. It is likely that the persons counted during the census were all permanent residents of Sand Point.

The figures in Table F-1 indicate a total of 276 civilian employed workers for Sand Point. Private employment other than self accounts for 70 percent of total employment; government accounts for 16 percent of total employment. Fishing and nondurable manufacturing

TABLE F-1.
SELECTED EMPLOYMENT-RELATED DATA
FROM 1980 CENSUS: SAND POINT

Civilian Employed Workers by Industry	Number	Percentage
Agriculture, Forestry, Fishing and Mining	74	27
Construction	6	2
Manufacturing: Nondurable	41	15
Manufacturing: Durables	0	0
Transportation	25	9
Communication and Public Utilities"	10	4
Wholesale Trade	0	0
Retail Trade	53	19
Finance, Insurance, and Real Estate	0	0
Business and Repair Services	0	0
Personal, Entertainment and Recreation Services	16	6
Professional Health Services	9	3
Professional Education Services	31	11
Other Professional Services	0	0
Public Administration	11	4
TOTAL	276	

Employed Workers Claiming Farming, Forestry, or Fishing as Occupation	Number	
	63	

Civilian Employed Workers by Kind of Employer	Number	Percentage
Government	44	
Federal	2	1
State	7	3
Local	35	13
Private other than self	193	70
Self	39	14
Unpaid (usually work for family)	0	0
TOTAL	276	

NOTE: Data were collected as of a given week during the spring of 1980. However, the particular week was not necessarily consistent for all households.

Source: Special Tabulations for 1980 census, from U.S. Bureau of the Census, Tape STF3A, Tabulations 55, 65, 66, and 67.

(fish processing) combined account for 38 percent of total employment. Retail trade and professional educational services are the industry sectors which employ the next largest number of employees.

In 1981, the city of Sand Point published a community comprehensive plan for the city. Table F-2, from that report, suggests a much higher number of employed persons than the 1980 census data. The 538 workers represent 67 percent of the 794 residents of Sand Point counted in the city's June 1980 survey. In contrast, the 1980 census suggests that 44 percent of their 625 population count is employed. The discrepancy between the two figures is explained by the later month of the city survey when the fishing season has begun. Table F-2 shows that 87 percent of the employees in Sand Point are in fishing-related activities.

The Alaska Department of Labor statistics for the Aleutian Islands Census Division nonagricultural wage and salary employment (Table F-3) show that over 50 percent of the 1980 average employment is in the manufacturing industry. In the Aleutian Islands, the only manufacturing industry is fish-processing. Table F-3 data does not distinguish between resident and nonresident employment, nor do they include most fishing employment.

A comparison of Tables F-1 and F-3 illustrates the role of Sand Point as the third largest community in the 15-community Aleutian

TABLE F-2.
COMPOSITION OF EMPLOYMENT

Activity	Employed
Commercial Fishing	279
Seafood Processing	189
Commercial Services	17
Construction	4
Transportation	7
Education	18
Technical/Professional Services	2
Federal Government	3
State Government	5
Local Government	8
Corporations/Nonprofit Organizations	6
TOTAL	538

Source: City of Sand Point 1981 Comprehensive Plan.

TABLE F-3.
NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT.
ALEUTIAN ISLANDS DIVISION, 1980

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	1980 Average	Seasonality Factor (a)
Total Non-agricultural	2,680	3,266	3,941	3,565	3,363	.68
Mining	*	0	0	0	0	--
construction	33	124	204	97	115	.16
Manufacturing	1,124	1,596	2,271	1,890	1,720	.49
Transportation, Utilities	80	87	88	104	90	.77
Wholesale Trade	*	*	*	*	*	*
Retail Trade	99	106	107	110	106	.90
Finance, Insurance and Real Estate	44	79	105	77	76	.42
Services	192	150	159	108	152	.56
Federal Gov't	661	672	695	677	676	.95
State & Local Government	433	423	295	480	408	.61
Miscellaneous	8	*	*	*		--
Total Undisclosed Employment	6	29	17	22	20	.21

*Not shown to avoid disclosure of data for individual firms.

aLowest quarterly employment/highest quarterly employment.

Source: Alaska Department of Labor, _Statistical Quarterly_, 1980 I-IV, p. 9.

Islands census district. For this comparison, a total of
213 civilian employed workers by industry is used from Table F-1,
derived by subtracting 63 employees claiming fishing from the 276
total employees to obtain nonagricultural workers. A comparison
indicates that only 19 percent of Sand Point employees are involved
in manufacturing (fish processing) as compared to 51 percent for the
census division (1,720/3,363). There is a larger percentage of
transportation, communication, and public utilities workers in Sand
Point (17 percent] than in the division (3 percent).. Similarly, -'
there is a greater percentage of retail workers in Sand Point than"
the division (25 percent versus 3 percent).

Table F-4 presents our estimates of resident full-time equivalent
employment in Sand Point and the distribution of this employment
among several different categories of employment. The footnotes to
the table describe how each figure was developed.

We estimate a total 1980 FTE resident employment of 249. 'Of this
figure, 165 (66 percent] are in basic sector jobs, 68 (27 percent)
are in support sector jobs, and 16 (6 percent) are in government
sector jobs. Exogenous employment, employment which provides goods
and services for markets other than the local community, 'was 178
(71 percent) of all resident employment. For every 'exogenous job
there were .40 endogenous jobs. There were .21 endogenous support
jobs for every other resident job in the community.

TABLE F-4.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN SAND POINT, 1980

<u>Resident **Basic Employment**</u>	<u>165</u>
Harvesting	107[a]
Fish Processing	47[b]
Mining	11[c]
<u>**Resident Support** Employment</u>	<u>68[d]</u>
Exogenous	11
Endogenous	35
Government-sponsored	21
Enclave-sponsored	1
<u>**Resident** Government **Employment**</u>	<u>16[e]</u>
Exogenous	2
Endogenous	14
<u>**Total** Resident</u>	<u>249</u>
Total Exogenous	178
Total Endogenous	71
<u>Nonresident (Enclave) Employment</u>	<u>54[f]</u>
<u>**Total** Resident **and** Nonresident</u>	<u>303</u>

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[a]The 1980 census counted 63 employed persons claiming forestry, fishing, or farming as an occupation (Table F-1). This is substantially below the city of Sand Point's 1980 estimate of 279 commercial fishermen (Table F-2). It is possible that a significant portion of Sand Point's resident, licensed fishermen were omitted from the census tabulations because they were not actually working in the designated time period of the survey. For this reason, we reject the census figure and use the city's figure of 279 fishermen. Assuming a fishing season of 20 weeks per year, we obtain 107 FTE jobs for fish harvesting in Sand Point.

(Continued on Following Page)

[b]The 1980 census counted 41 nondurable manufacturing employees (Table F-1) compared to the city's count' of 189 seafood processing employees (Table F-2). There are three processors located in Sand Point, but only one processor, Aleutian Cold Storage Company, actually processed during the 1980-1981 seasons (ISER 1983). Ocean Beauty and Peter Pan act as seasonal "fish camps." Processing employment varies significantly depending on time of year, species, and level of catch. We assume the census figures reflect the spring seasonal employment trough rather than the average annual level of employment and assume 20 of these 41 employees are year-round administrative and maintenance workers for the industry. The other 21 employees counted by the census are assumed to work-an extended-season of 26 weeks. The remaining 148 employees counted by the city are assumed to work an average of six weeks each.

[c]This figure is derived by subtracting employed persons claiming agriculture, forestry, and fishing occupations (63) from census industry employment classified as agriculture, forestry, fishing and mining (74).

[d]One method of calculating total support employment is to use census figures adjusted by a seasonality factor. Addition of support sector employment in Table F-1 yields a total of 144 workers. Subtracting from this the total civilian government employment of 44 results in 100 support-sector civilian employment: Dividing the total lowest quarterly employment by the highest quarterly employment for support employment in Table F-3 gives a seasonality factor of .68 which, when multiplied by 100 workers, equals 68 FTE support employees. This figure is supported by tabulations made by the city for 1980 and Earl Combs, Inc. (Table F-5). We distribute 'resident support employment as 11 exogenous (transportation), 35 endogenous (local services), 21 government-sponsored (clinic and school), and 1 enclave-sponsored employee (fuel delivery).

'According to the census, there were 44 government employees in 1980 (Table F-1). There is no military employment in Sand Point. The city indicates only 16 government employees in 1980" "-" (-Table F-2), the largest discrepancy in the two sets of data in the local government category. Based on our knowledge of Sand Point, we reject the census figure. We assume that 25 percent-of-the federal and state government employees were exogenous and that all local government employees were endogenous. This resulted in exogenous government employment of 2 with the remaining 14 as endogenous.

[f]We assume 140 nonresident processing employees work an average of 20 weeks per year, giving a figure of 54 FTE employment for nonresident enclave employment.

TABLE F-5.
SAND POINT NONFISHERY EMPLOYMENT, 1981

Public Sector

Federal, State, Municipal	16
Education	18

Commercial Sector

Merchandise	23
Electricity, Fuel, Propane	5
Accomodation, Dining, Tavern	7
Transportation	7
construction	4
Total	**81**

Source: Earl R. Combs, Inc., 1982.

Income

One measure of personal income for Sand Point may be obtained by multiplying the population (625 persons) by the average per capita income for the Aleutian Islands Census Division. The Alaska Department of Labor measured per capita income for the division as $9,511 in 1980 (Alaska Department of Labor, Alaska Planning Information, p. 92). This method provides an estimate of total personal income of $5.94 million.

An alternate method is to multiply the number of FTE employment in each sector by an average wage for that sector. In Table F-6, the average monthly wage for the basic, support, and government sectors are shown for the Aleutian Islands Census Division. Using these figures, an estimated total annual wage income for Sand Point in 1980 is $4.64 million.

An estimate of nonwage income was derived from the Bureau of Economic Analysis (BEA) estimates of personal income by source for Alaska census divisions (April, 1982). A total of $7.389 million in transfer payments was distributed to residents of the 'Aleutian Islands Census Division in 1980. Based on the proportion (8.05 percent) of total census division population, Sand Point would account for $594,815 in nonwage transfer payments. This implies a per capita nonwage income of $952. Combining nonwage income of $594,815 with $5.29 million in wage income, the average of our two estimates, produces $5.87 million in total personal income, or a per capita level of $9,400.

TABLE F-6.
CALCULATION OF AVERAGE
MONTHLY WAGE IN BASIC, SUPPORT, AND
GOVERNMENT SECTORS, ALEUTIAN ISLANDS CENSUS DIVISION, 1980

	Average Annual Employment	Average Monthly -!&2O?-	Average Monthly Total Earnings
Mining	0	0	
Manufacturing	1,720	1,469	2,526,680
Total Basic Sector	1,720	1,469[a]	2,526,680
Construction	115	3,845	442,175
Transportation, Communication, and Utilities	90	1,612	145,080
Wholesale Trade	*	*	*
Retail Trade	106	1,223	1 29,538
Finance, Insurance and Real Estate	76	1,134	86,184
Services	152	1,051	159,752
Total Support Sector	539	1,786[a]	962,829
Federal Government	676	1,306	882,856
State and Local Government	408	1,662	678,096
Government Sector	1,084	1,440[a]	1,560,952

[a]Sectoral monthly wage rates calculated by dividing average monthly total earnings by average employment.

*Not disclosed.

Source: Alaska Department of Labor, Statistical Quarterly, 1980, I-IV.

Labor Force Participation

Sixty percent (60%) of Sand Point residents aged 16 and *over* are employed (Table F-7).   Only two percent of this population considered itself unemployed in 1980; the remaining 28 percent are categorized as not in the labor force (NILF). Our figures show that 61 percent of Natives are NILF.

The labor force participation rate (Table F-8) for non-Natives in Sand Point is .96 for males and .88 for females.   Comparable   rates " ' ' - for Natives are .55 for males and .21 for females. These rates are consistent with patterns seen in other Aleutian Island and Alaska Peninsula communities.

TABLE F-7.
EMPLOYMENT STATUS OF
PERSONS AGED 16 AND OVER
SAND POINT

	Total		Non-Native[a]		Native	
	Male	Female	Male	Female		
Civilian Employed	195	81	133	62	62	19
Armed Forces	0	0	0	0	0	0
Unemployed	8	4	0	0	3	4
Not in Labor Force	73	102	9	22	64	80
TOTAL	276	187	142	84	134	m
Employment Rate[b]	.71	.43	.94	.74	.46	.18

[a]Calculated by subtracting Native figures from total figures.

[b](Civilian employed + armed forces)/total.

TABLE F-8.
CALCULATION OF LABOR FORCE
PARTICIPATION RATE
FOR SAND POINT

Group	Number Civilian Employed (a)	Civilian Population (b)	Labor Force Participation Rate (c)	Population (d)	Calculated Number Employed (e)	Adjusted Number Employed (f)	Adjusted Labor Force "Participation Rate (g)
Non-Native Hales Ages 20-64	1 16^e	142	.817	107	87	103	. %
Non-Native Females Ages 20-64	62	84	.73$	78	58	69	.88
Native Males Ages 20-64	62	134	.463	110	51	60	.55
Native Females Ages 20-64	_19	103	.184	_80	_14	_17	.21
Total	276	463		375	210	249	

(a) 1980 Census data from Table F-7.

(b) 1980 Census data from Table F-7.

(c) Number civilian employed/civilian population.

(d) 1980 Census data from Table VI-1 for ages 20-64.

(e) Labor Force Participation Rate (c) x population (d).

(f) We have. assumed resident FTE employment of 249 (Table F-4. In order to obtain rates consistent with total estimated FTE employment, the calculated number employed (e) was multiplied by an adjustment factor of 249/210 = 1.19.

(g) Adjusted number employed (f)/population (d).

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Appendix **G**

Technical Appendix: **St. George**

In this appendix we develop estimates **of** employment, income **and**
labor force participation in **St.** George for **1980.**

Employment

There are a variety of alternative definitions of employment. The measure we have chosen is resident full-time equivalent (FTE) employment. FTE employment is a measure of total person-years of work. We believe it is the single most useful measure of employment in a community although, in a community such as St. George, seasonal variation is also an essential measure. Care is "needed in -interpreting FTE employment since it may vary greatly from actual employment at any particular time of the year.

Several sources of information on 1980 employment in St. George are available. In Table G-1, 1980 census data indicates 44 employed workers by industry, the largest proportions of which work in public administration (45 percent], professional education services (18 percent), professional health services (14 percent), and the retail trade (11 percent). Only 7 of the workers are private employees, the remaining 37 (84 percent) employed by either federal, state, or local government. There is no military employment in St. George. These data were collected for a given week in the spring of 1980; *therefore*, they are not an accurate measure of full-time equivalent (FTE) employment since persons unemployed at the time of the count may be employed during substantial periods of time during other seasons.

TABLE G-1.
SELECTED EMPLOYMENT-RELATED DATA
FROM 1980 CENSUS: ST'. GEORGE

Civilian Employed Workers by Industry	Number	Percentage
Agriculture, Forestry, Fishing and Mining	0	0
Construction	2	5
Manufacturing: Nondurable	0	0
Manufacturing: Durables	0	0
Transportation	0	0
Communication and Public Utilities	0	0
Wholesale Trade	0	0
Retail Trade	5	11
Finance, Insurance, and Real Estate	0	0
Business and Repair Services	2	5
Personal, Entertainment and Recreation Services	0	0
Professional Health Services	6	14
Professional Education Services	8	18
Other Professional Services	1	2
Public Administration	20	45
TOTAL	44	100

Employed Workers Claiming Farming, Forestry, or Fishing as Occupation   0

Civilian Employed Workers by Kind of Employer	Number	Percentage
Government	37	
Federal	26	59
State	8	18
Local	3	7
Private other than self	7	16
Self	0	0
Unpaid (usually work for family)	0	0
TOTAL	44	100

Military Employment   0

NOTE : Data were collected as of a given week during the spring of 1980. However, the particular week was not necessarily consistent for all households.

Source: Special Tabulations for 1980 census, from U.S. Bureau of the Census, Tape STF3A, Tabulations 55, 65, 66, and 67.

Table G-2 presents data collected by ISER for Employment of Natives in St. George in 1980. To obtain employment for the entire population, the reader should add one . full-time position to the clinic and two full-time positions to the school. With these additions, a total of 57 persons are identified as employed in St. George including full-time, near full-time, and part-time workers.

Table G-3 presents nonagricultural wage and salary employment data for the Aleutian Islands Census Division. These data do not provide an accurate picture of resident employment in St. George because they do not include many part-time jobs, and St. George represents . only 2 percent of the population of the large area covered. The data, however, do provide an indication of the seasonally of work . in many industries in the Aleutian Islands district.

In order to calculate FTE resident employment in St. George, we used -" -- the employment data in Table G-2 with the above noted additions of -non-Native workers. Table G-4 presents our estimates of resident FTE employment and the distribution of this employment among several different categories of employment. The footnotes to the table describe how each figure was developed.

TABLE G-2.
EMPLOYMENT CONDITIONS IN
ST. GEORGE: NATIVES, 1980

EMPLOYER	NUMBER EMPLOYED FULL-TIM?	EMPLOYED PART-TIME	AVG. NO. WEEKS PER PART-TIME WKR	TOTAL EMPLOYED	% OF TOTAL EMPLOYMENT
NMFS	12	11[b]	28	41	75.9
		18[c]	8		
Clinic	1			1	1.9
School	3			3	5.5
Store	2			2	3.7
Canteen	1			1	1.9
corporation	1			1	1.9
Company House		1	8	1	1.9
Community Council	2			2	3.7
Phone Operator	2	—	—	2	3.7
TOTAL	24	30	NA	54	100.1

[a]Includes near full-time workers such as school personnel hired for nine or ten months of the year.

[b]"Part-time Indefinites" who worked more than six months of the year.

[c]Includes "Temporaries" and "Part-time Indefinites" who worked less than six months of the year.

Source: ISER, undated.

TABLE G-3.
NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT,
ALEUTIAN ISLANDS CENSUS DIVISION, 1980

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	1980 Average	Season-ality Factor (a)
Total Non-agricultural	2,680	3,266	3,941	3,565	3,363	.68
Mining	*	0	0	0	0	*
Construction	33	124	204	97	115	.16
Manufacturing	1,124	1,596	2,271	1,890	1,720	.49
Transportation, Utilities	80	87	88	104	90	.77
Wholesale Trade	*	*	*	*	*	*
Retail Trade	99	106	107	110	106	.90
Finance, Insurance and Real Estate	44	79	105	77	76	.42
Services	192	150	159	108	152	.56
Federal Gov't	661	672	695	677	676	.95
State & Local Government	433	423	295	480	408	.61
Miscellaneous	8	*	*	*		*
Total Undisclosed Employment	6	29	17	22	20	.21

*Not shown to avoid disclosure of data for Individual firms.

(a) Lowest quarterly employment/highest quarterly employment.

Source: Alaska Department of Labor, <u>Statistical Quarterly</u>, 1980 I-IV, p. 9.

We estimate a **total 1980 FTE** employment **of 36.** The **largest** share (58 percent) **is found in** resident government employment. Fifteen **FTE** positions, **or** 42 percent of the **total,** are held by National **Marine** Fisheries Service **(NMFS)** employees. Support employment **constitutes 12** FTE positions of **33** percent of the **total.** The remaining three **basic** employment positions are **held** by employees working **in the seal** processing **plant** in St. **Paul.** Exogenous employment, or employment which provides goods **and services** for **markets outside the local** community, was **3 (8 percent of all** resident employment). For **every** exogenous **job** there were **11 endogenous jobs.** There were **.14 endogenous** support jobs for every **other job in** the community.

TABLE G-4.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN ST. GEORGE, 1980

Resident Basic **Employment**	3
Fishing	0
Seal Processing	3[a]
Other (Primarily Mining)	0
Resident **Support** Employment	12
Exogenous	0
Endogenous	5[b]
Government-sponsored	7[c]
Enclave-sponsored	0
Resident Government Employment .	21[d]
Exogenous	0
Endogenous	21
Total Resident	36
Total Exogenous	3
Total Endogenous	33
Nonresident (Enclave) **Employment**	0
Total Resident **and** Nonresident	36

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[a]Five of the part-time NMFS employees, working an average of 28 weeks per year, worked in 1980 in the seal processing plant located in St. Paul. These workers represent FTE employment of 3.

[b]All other employment in St. George is considered endogenous support employment.

[c]Government-sponsored employment included full-time employees in the school and the clinic.

[d]Resident government employment includes NMFS employees and local government workers. We assumed that, except for those noted in (a) above, all NMFS employees were involved in activities directly benefiting the village and therefore endogenous.

Income

One measure of personal income for St. George may be obtained by multiplying the population (158 persons) by the average per capita income for the Aleutian Islands census division. The Alaska Department of Labor measured per capita income for the division as $9,511 in 1980 (Alaska Department of Labor, Alaska Planning Information, page 92). This method provides an estimate of total personal income of $1,502,738.

An alternate method is to multiply the number of FTE employment in each sector by an average wage for that sector. In Table G-5, the average monthly wage for the basic, support, and government sectors are shown for the Aleutian Islands Census Division. Using these figures, an estimated total annual wage income for St. George in 1980 is $672,948.

Previous estimates of annual wage income fall between the figures derived by these two methods. The U.S. Bureau of the Census estimated 1979 median family income at $25,000. With a total of 36 families, total personal income would equal $900,000. "Management" and Planning Services (1980) estimated total salaries and wages in 1979 to be $899,500. ISER (undated) estimated 1979 total income for the Natives of St. George to be $926,652.

TABLE G-5.
CALCULATION OF AVERAGE MONTHLY EARNINGS
IN BASIC, SUPPORT, AND GOVERNMENT SECTORS,
ALEUTIAN ISLANDS CENSUS DIVISION, 1980

	Average Annual Employment	Average Monthly Wage	Average Total Monthly Earnings
Mining	0	0	
Manufacturing	1,720	1,469	2,526,680
Total Basic Sector	1,720	1,469[a]	2,526,680
Construction	115	3,845	442,175
Transportation, Communication, and Utilities	90	1,612	145,080
Wholesale Trade	*	*	*
Retail Trade	106	1,223	129,638
Finance, Insurance and Real Estate	76	1,134	86,184
Services	152	1,051	159,752
Total Support Sector	539	1,786[a]	962,829
Federal Government	676	1,306	882,856
State and Local Government	408	1,662	678,096
Government Sector	1,084	1,440[a]	1,560,952

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[a]Sectoral wage rates calculated by dividing average total earnings by average employment.

*Not disclosed.

Source: Alaska Department of Labor, Statistical Quarterly, 1980 I-IV, page 9.

The range of these estimates suggests that per capita income for St. George may be low relative to other communities in the census division, that our estimate of FTE employment may be low, or that the wage rates in St. George may be higher by sector than other Aleutian Island communities.

An estimate of nonwage income was "derived from the 'Bureau of '-- Economic Analysis (BEA) estimates of personal income by source for Alaska Census Divisions (April, 1982). A total of $7.389 million in - transfer payments were distributed to residents of the Aleutian : : Islands Census Division in 1980. Based on the proportion (2.03 percent) of total census division population, St. George would account for $149,997 in nonwage transfer payments. This estimate is low compared to previous estimates of $155,600 (ISER, undated) and $186,200 (Management and Planning Services, 1980, data for 1979). The discrepancy may be explained by omission" of a type of nonwage income such as the longevity bonus in the BEA data. The middle estimate of $155,600 implies a per capita nonwage income of $985. .

Combining nonwage income of $155,600 with $900,000 in total wage income produces $1,055,600 in total personal income or a per capita level of $6,681.

Labor Force Participation

The employment status of Native and non-Native males-and females in St. George is indicated in Table G-6. In developing this-table, we

estimated the age/sex distribution of non-Natives and assumed that all non-Natives are in the labor force as civilian employees. The rate of employment for Native males was almost twice that for Native females.

The labor force participation rates (Table G-7) were calculated using an adjustment factor to be Consistent with our estimates of FTE employment. The calculated rate for Native males is .58 and .32 for females.

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Appendix H

Technical Appendix: St. Paul

In this appendix we develop estimates of employment, "income and labor force participation in St. Paul for 1980.

Employment

There are a variety of alternative definitions of employment. The
measure we have chosen is resident full-time equivalent (FTE)
employment. FTE employment is a measure of total person-years of
work. We believe it is the single most useful measure of employment
in a community, although in a community such as St. Paul, seasonal
variation is also an essential measure. Care is needed in
interpreting FTE employment since it may vary greatly from actual
employment at any particular time of the year.   ---

The U.S. Bureau of the Census reports a total of 113 employed
workers in St. Paul for 1980 (Table H-1). The Public Administration
industry accounted for 65 percent of these jobs. Ninety-two percent
of the employed worked for the government sector.

Other available data indicate higher employment figures. Census
data were collected for a given week in the spring of 1980 and,
therefore, may not reflect the large number of seasonal or part-time
jobs available in St. Paul. Alaska Consultants, Inc. (1981), notes
that there were about 220 employed persons in St. Paul in July 1980,
representing close to 195 percent of the employment reported in the
census. ISER (undated) reports that of the 1980 St. Paul Native
population, 64 were employed full-time and 180 .~art-time
(Table H-2). Using the reported number of weeks worked per year by
each part-time worker, the part-time employment is-reduced to 38
full-time equivalent positions making a total of 102 FTE employment

TABLE H-1.
SELECTED EMPLOYMENT-RELATED DATA
FROM 1980 CENSUS: ST. PAUL[a]

Civilian Employed Workers by Industry	Number	Percentage
Agriculture, Forestry, Fishing and Mining	2	2
Construction	3	3
Manufacturing: Nondurable	0	cl
Manufacturing: Durables	0	0
Transportation	0	0
Communication and Public Utilities"	0	0
Wholesale Trade	0	0
Retail Trade	1	1
Finance, Insurance, and Real Estate	3	3
Business and Repair Services	3	3
Personal, Entertainment and Recreation Services	0	0
Professional Health Services	2	2
Professional Education Services	25	22
Other Professional Services	0	0
Public Administration	74	65
TOTAL	113	101

Employed Workers Claiming Farming, Forestry, or Fishing as Occupation	2	

Civilian Employed Workers by Kind of Employer		Number	Percentage
Government	104		
Federal		66	58
State		20	18
Local		18	16
Private other than self		7	--6"
Self		0	0
Unpaid (usually work for family)		2	2
TOTAL		113	100

Military Employment

aData were collected as of a given week during the' spring of 1980. However, the particular week was not necessarily consistent for all households.

Source: Special Tabulations for 1980 census, from U.S. Bureau of the Census, Tape STF3A, Tabulations 55, 65, 66, and 67.

TABLE H-2.
EMPLOYMENT CONDITIONS IN ST. PAUL
NATIVES 1980

Employer	Number Employed Full-Time[a]	Number Employed Part-Time	Average Number of Weeks Per Part-Time Worker	Total Weeks Per Year Part Time Workers	Total Number Employed	Percent of Total Employment
NMFS	17	22[b] / 96[c]	28 / 8	616 / 768	135	55.3
Clinic	2	2	40	80	4	1.6
School	13				13	5.3
City	7	3	25	75	10	4.1
TDX Corporation	6				6	2.5
Seal by-products		6	4	24	6	2.5
Seal meat processing		14	6	84	14	5.7
Reindeer antler process		15	3	45	15	6.1
Hotel		4	12	48	4	1.6
Restaurant		15	12	180	15	6.1
Store	10				10	4.1
Tavern	3				3	1.2
Gas station	1				1	0.4
Reeve/PO	1	1	12	12	2	0.8
AK Tours and Marketing		2	12	24	2	0.8
Coast Guard	2				2	0.8
Weather Service	2				2	0.8
Total	64	180	NA	1,956	244	99.7

SOURCE: SER undated.

a Includes near full-time workers such as school personnel hired for 9 or 0 months of the year.
b "Part-time Indefinites" who worked more than 6 months of the year.
c Includes "Temporaries" and "part-time Indefinites" who worked less than 6 months of the year.

for Natives in 1980. The National Marine Fisheries Service (NMFS)
represented 42 percent of the FTE positions with the school the next
largest employer with *13* FTE positions.

In 1980, Alaska Consultants, Inc., contacted individual employers in
St. Paul in a survey of employment on the island. In Table H-3,
they summarize their data as FTE positions by Standard Industrial
Classification Code categories. Their numbers include self-employed
persons, 25 military personnel and non-Natives as well as Natives.
Seventy-five percent of the 122.5 FTE employment jobs- in 1980 were
in the government sector with *66* percent of these jobs with the
federal government through the National "Marine Fisheries Service,
the Coast Guard, the Post Office, and the Public Health Service.
Only one state government job, the State Trooper, was reported. .
Local government employment is made up of 21.5 jobs at the school
and 9 in city and IRA offices.

The trade sector commands most of the remaining jobs in Table H-3
" with 18.5 FTE employment or 15 percent of the total number. These
jobs include restaurant, gift shop, cafe, bar, store, and gas
station employment. The five jobs reported in Finance, Insurance,
and Real Estate are associated with the Tanadgusix Corporation, the
St. Paul Village Corporation. Other jobs include reindeer herding
(Agriculture, Forestry, and Fishing), seal by-products processing
(Manufacturing), and service jobs.

TABLE H-3.
AVERAGE ANNUAL FULL-TIME EMPLOYMENT[a]
ST. PAUL, ALASKA
1980

Classification	Number	Percent	Basic Percent	Basic Number	Secondary Number
Agriculture, Forestry, and Fishing	1.0	0.8	50	0.5	0.5
Mining	0.0	0.0	*	0.0	0.0
Contract Construction	0.0	0.0	*	0.0	0.0
Manufacturing	1.0	0.8	100	1.0	0.0
Transportation, Comunication, and Public Utilities	1.5	1.2	0	0.0	1.5
Trade	18.5	15.1	22	4.0	14.5
Finance, Insurance, and Real Estate	5.0	4.1	100	5.0	0.0
Service	3.5	2.9	43	1.5	2.0
Government	92.0	75.1	61	56.0	36.0
Federal	(60.5)	(49.4)	(93)	(56.0)	(4.5)
State	(1.0)	(0.8)	(0)	(0.0)	(1.0)
Local	(30.5)	(24.9)	(0)	(0.0)	(30.5)
TOTAL	122.5	100.0	56	68.0	54.5

aIncludes self-employed persons and 25 military personnel.

*Not isclosed.

Source: Alaska Consultants, Inc., August 1980.

Table H-4 gives two different estimates of FTE resident employment
for St. Paul for the basic, support, and government sectors. The
left column was derived from Table H-2, the right column from
Table H-3. The footnotes to the table describe how each figure was
developed.

We estimate a total FTE employment of 123 for St. Paul in 1980.
-Twenty-five of these jobs are considered military. The largest
share, 68 percent, of resident employment is government and
-government-sponsored employment. Resident basic employment
represents only 3 percent of total resident employment in each
estimate. Exogenous employment, employment which provides goods and
services for markets outside the local community, was- 28 to
33 percent of all resident employment. For every exogenous job
- there were 2 to 2.5 endogenous jobs. There were .20 endogenous
support jobs for every other job in the community.

TABLE H-4.
TWO ESTIMATES OF FULL-TIME EQUIVALENT
EMPLOYMENT IN ST. PAUL, 1980

	Estimates Based on 1980 Census	Estimates Based on AK Consultants Data
Resident Basic Employment	3a	2a
Seal Processing	2	1
Other (Reindeer Antler)	1	1
Resident Support Employment	42	52
Exogenous	8b	9.5f
Endogenous	19c	19.5g
Government-sponsored	15d	23d
Enclave-sponsored	0	0
Resident Government Employment	52e	44h
Exogenous	21	17
Endogenous	31	27
Total Resident	97	98
Exogenous		
Endogenous		
Nonresident (Enclave) Employment	0	0
Total Exogenous	32	27.5
Total Endogenous	65	69.5
Total Resident and Nonresident	97	98
Total Military Employment	25	25

See notes on following page.

<u>Table</u> H-4 Notes

[a]Seasonal employment in seal by-products processing, seal meat processing and reindeer antler processing (on Umnak Island) constitutes three full-time equivalent positions. Alaska Consultants, Inc., (1981) reports that a 35-man meat plant crew is hired for eight weeks, that the by-products plant hires nine people between the end of June and the beginning of August, and another three people for a six-week period beginning in mid-June, and that the reindeer operation hires five people for four weeks a year.

[b]Alaska Tours and Marketing hires two summer workers to lead tours of the island and seal operations. Other Support sector positions in this category include hotel, restaurant, and giftshop workers.

[c]Employers in this category include Tanadgusix Corporation (TDX) as well as the bar, gas station, and airline office. -

[d]Government-sponsored support employment includes school and clinic employees. The discrepancy between these two estimates is found in data reported for school employees, partly due to the presence of some non-Native teachers being counted by Alaska Consultants, Inc.

[e]NMFS employees involved in seal harvesting and processing are considered exogenous government employees. These positions are seasonal. All year-round and six part-time NMFS employees were categorized as endogenous. City employees are" considered endogenous. Other exogenous government employees include weather service personnel.

[f]Six trade sector jobs in the restaurant, cafe, and gift shops and 3.5 from the service sector make up the exogenous reside-nt support employment.

[g]The remaining 13 trade sector jobs are primarily in the IRA-owned bar, store and gas station, in public utilities (1.5), and 5 positions in the TDX Corporation. These jobs are included in endogenous resident support employment.

'Seventeen, or 50 percent, of NMFS jobs are assumed exogenous. All other government sector jobs are considered endogenous. These include all local government, the one state employee-and the remainder of NMFS positions.

Income

One *measure* of personal income for St. Paul may be obtained by multiplying the population (551 persons) by the average per capita income for the Aleutian Islands Census Division. The Alaska Department of Labor measured per capita income for the division as $9,511 in 1980 (Alaska Department of Labor, _Alaska Planning Information_, page 92). This method provides an estimate of total personal income of $5,240,561.

An alternate method is to multiply the number of FTE employment in each sector by an average wage for that Sector. In Table H-5, the average monthly wage for the basic, support, and government sectors is shown for the Aleutian Islands Census Division. Using these figures, an estimated total annual wage income for St. Paul in 1980 ranges from $1,851,588 to $1,910,040, using ISER and Alaska Consultants, Inc., Table H-4 estimates, respectively.

Two estimates of annual wage income for St. Paul in 1979 are available. Management and Planning Services (1980) estimates total local earned income of $2,124,616. ISER (undated) estimates $2,620,144 for the same year. More recently, a 1982 estimate (Smythe, 1982, in Dames and Moore, 1983) of total earned income is $2,836,000. All of these estimates are built from the addition of wages for different employers and job categories and are, therefore, probably more accurate than the estimates derived from regional

CALCULATION OF AVERAGE
MONTHLY EARNINGS IN BASIC, SUPPORT, AND
GOVERNMENT SECTORS, ALEUTIAN ISLANDS CENSUS DIVISION,1980

	Average Annual Employment	Average Monthly Wage	Average Total Monthly Earnings
Mining	0	0	
Manufacturing	1,720	1,469	2,526,680
Total Basic Sector	1,720	1,469[a]	2,526,680
Construction	115	3,845	442,175
Transportation, Communication, and Utilities	90	1,612	145,080
Wholesale Trade	*	*	*
Retail Trade	106	1,223	129,638
Finance, Insurance and Real Estate	76	1,134	86,184
Services	152	1,05	159,752
Total Support Sector	539	1,78	962,829
Federal Government	676	1,306	882,856
State and Local Government	4 0 8	1,662	678,096
Government Sector	1,084	1,440[a]	1,560,952

[a]Sectoral wage rates calculated by dividing average total earnings by average employment.

·*Not disclosed.

Source: Alaska Department of Labor, Statistical Quarterly, 1980
I-IV.

data. For our purposes, we will average the two 1979 estimates for an annual wage income of $2,372.380. The difference between this figure and the incomes derived from the census division data suggests that the per capita level for St. Paul is lower than other communities in the census division, that our estimates of FTE employment may be slightly low, or that the wage rates in St. Paul may be higher by sector than in other Aleutian Island communties.

An estimate of nonwage income was derived from the Bureau of Economic Analysis (BEA) estimates of personal income by source for Alaska census divisions (April, 1982). A total of $7.389 million in transfer payments were distributed to residents of the Aleutian Islands Census Division in 1980. Based on the proportion (7.09 percent) of total census division population, St. Paul would account for $523,880 in nonwage transfer payments. This estimate is slightly lower than 1979 estimates of $566,750 by ISER (undated) and $535,600 by Management and Planning Services (1980). The middle estimate of $535,600 implies a per capita nonwage income of $972.

Combining nonwage income of $535,600 with $2,372,380 in total wage income produces $2,907,980 in total personal income, or a per capita level of $5,27%.

TABLE H-6.
EMPLOYMENT STATUS OF
PERSONS AGED 16 AND OVER
ST. PAUL, 1980

	Total		Non-Native[a]		Native	
	Male	Female	Male	Female	Male	Female
Civilian Employed	78	35	a	8	70	27
Armed Forces	54	0	54	0	0	0
Unemployed	3	3	0	0	3	3
Not in Labor Force	143	114	0	5	143	109
Total	278	152	62	13	216	139
Employment Rate[b]	.47	.23	1.00	.62	.32	.19

[a]Calculated by subtracting Native figures from total figures.

[b](Civilian employment + armed forces/total.

'-Source: Bureau of the Census, 1980 Census Special Tabulation STF3A,
            Table 55.

Labor Force Participation

The employment status of Native and non-Native males and females in St. Paul is indicated in Table H-6. Among the non-Natives, 87 percent of the males are employed in the Armed Forces and 38 percent of the females are considered not in the labor force. According to the census figures, the employment 6-ate for Native males and females is 32 percent and 19 percent, respectively.

The civilian labor force participation rate for St. Paul (Table H-7) is highest for non-Natives and higher for males than for females. This reflects the high Armed Forces employment for non-Native males and the typically lower participation rate of Native females. We adjusted labor force participation rates to be consistent with our estimates of FTE employment. In general, the calculated participation rates are probably low due to the omission of many seasonal workers in the figures.

Group	Number Civilian Employed (a)	Civilian Population (b)	Labor Force Participation Rate (c)	Population (d)	Calculated Number Employed (e)	Adjusted Number Employed (f)	Adjusted Labor Force Participation Rate (g)
Non-Native Males Ages 20-64	8	8	1.0	32	32	30	.94
Non-Native Females Ages 20-64 "	8	?3	.615	16	10	9	.56
Native Males Ages 20-64	m	216	.324	136	44	41	.30
Native Females Ages 20-64	27	139	.194	103	20	18	.17
Total	113	376		287	106	98	

(a) -1930 Census data from Table H-6. Employed persons ages 16 and over were assumed to be between ages 20 and 64.

(b) 1930 Census data from Table H-6.

(c) Number civilian employed/civilian population.

(d) 1980 Census data from Table VI-1 forages 20-64.

(e) Labor force participation rate (c) x population (d).

(f) We have assumed resident FTE employment of 93 (Table H-4). In order to obtain rates consistent with total estimated FTE employment, the calculated number employed (e) was multiplied by an adjustment factor of 93/106 = .92.

(g) Adjusted number employed (f) /population (d).

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Appendix I

Technical Appendix: Nelson Lagoon

In this appendix we develop estimates of employment, income and labor force participation in Nelson Lagoon for 1980.

Employment

There is no single source which provides a complete description of 1980 employment in Nelson Lagoon. According to the U.S. Bureau of the Census, there were no employed persons aged 16 and over in Nelson Lagoon at the time of the 1980 census. This information was collected for a given week during the spring of 1980; therefore, it does not include fishing employment. " Salmon fisheries, especially the sockeye salmon run, occupies nearly every resident during the June to mid-September fishing season.

Other employment in Nelson Lagoon includes two teachers and a school maintenance person who work nine months, and four other contract employees who are employed year-round. These jobs are not reflected in the 1980 census.

There are a variety of alternative definitions of employment. The measure we have chosen is resident full-time equivalent (FTE) employment. FTE employment is a measure of total person-years of work. We believe it is the single most useful measure of employment in a community, although in a community such as Nelson Lagoon, seasonal variation is an essential measure also. Care is needed- in interpreting FTE employment since it may vary greatly from actual employment at any particular time of the year.

In Nelson Lagoon we assumed all employment was resident employment. There is no industry in the village which causes seasonal workers to migrate to the village.

Table I.1 presents our estimates of resident full-time equivalent employment in Nelson Lagoon and the distribution of this employment among several different categories of" employment. The footnotes to the table describe how each figure was developed.

We estimate a total 1980 FTE resident employment of 14. *Over* half (55 percent) of this is represented by seasonal commercial fishing activities. The remainder is composed of support employment and one local government year-round employee. Exogenous employment, employment which provides goods and services for markets outside the local community, was 8 (57 percent of all resident employment). For every exogenous job there were .75 endogenous jobs. There were .36 endogenous support jobs for every other job in the community.

TABLE I.1.
ESTIMATED FULL-TIME EQUIVALENT
EMPLOYMENT IN NELSON LAGOON, 1980

<u>Resident **Basic** Employment</u>   <u>8</u>

    Fishing 8^a
    Fish Processing   0
    Petroleum Processing   0
    Other (Primarily **Mining)**   0

<u>**Resident Support** Employment</u>   <u>5</u>

    Exogenous   0
    Endogenous 5^b
    Government-sponsored   0
    Enclave-sponsored   0

<u>Resident Government. Employment</u>   <u>1</u>

    Exogenous   0
    Endogenous   1

<u>**Total** Resident</u>   B

    Total Exogenous   8
    Total Endogenous   6

<u>Nonresident (Enclave) Employment</u>   0

<u>**Total** Resident and Nonresident</u>   14

---

[a]The 1980 census counted 33 residents aged 20-64. We assumed
29, or 87 percent, of these residents are salmon fishermen. To
calculate FTE employment, we multiply 29 by the fraction of the year
spent fishing (14 weeks or .27 year) to equal 8 FTE employment.

[b]Endogenous employment in Nelson Lagoon includes two teachers
and a school maintenance person who work a nine-month year, and
three full-time employees providing support services for -the
community.

Income

There is no specific income information available for Nelson Lagoon. One measure of personal income for the village may be obtained by multiplying the population (59 persons) by the average per capita income for the Aleutian Islands Census Division. The Alaska Department of Labor measured per capita income for the division as $9,511 in 1980 (Alaska" Department of Labor, Alaska Planning Information, page 92). This method provides-an estimate of total personal income of $561,149.

An alternate method is to assume a commercial fish harvest . employment wage rate of $45,000 and an estimate of $21,432 (Table I.2) for the support sector wage rate. Multiplying these wage rates by the employment estimates in Table I.1 provides an . estimate of total resident wage income of $464,590 in 1980. " --

An estimate of nonwage income was derived from the Bureau of Economic Analysis (BEA) estimates of personal income by source for Alaska Census Division (April 1982). A total of $7.389 million in transfer payments were distributed to residents of the Aleutian-- - 'Islands Census Division in 1980. Based on the proportion (.76 percent) of total census division population, Nelson--Lagoon ---: "would account for $56,156 in nonwage transfer payments. This implies a per capita nonwage income of $952. Combining nonwage income of $56,156 with $464,590 in wage income produces $520,746 in total personal income, or total per capita income of $8,826.

	Average Annual Employment	Average Monthly Wage	Average Total Monthly Earnings
Minis-lg	0	0	
Manufacturing	1,720	1,469	2,526,680
Total Basic Sector	1,720	1,469[a]	2,526,680
Construction	115	'3,845"	442,175
Transportation, Communication, and Utilities	90	1,612	145,080
Wholesale Trade	*	*	*
Retail Trade	106	1,223	129,638
Finance, Insurance and Real Estate	76	1,134	86,184
Services	152	1,051	159,752
Total Support Sector	539	1,786[a]	962,829
Federal Government	676	1,306	882,856
State and Local Government	408	1,662	678,096
Government Sector	1,084	1,440[a]	1,560,952

[a]Sectoral wage rates calculated by dividing average total earnings by average employment.

*Not disclosed.

Source: Alaska Department of Labor, Statistical Quarterly, 1980 I.IV.

<u>Labor Force Participation</u>

There were 33 people aged 20-64 in Nelson Lagoon in 1980 (Table 1.3). Four of these were non-Native, two each male and female. It is assumed that all 33 persons are actively employed in either' the fisheries or support-sector employment.

TABLE I.3.
CALCULATION OF LABOR FORCE
PARTICIPATION RATE ASSUMPTIONS
FOR NELSON LAGOON

Group	Number Civilian Employed (a)	Population (b)	Labor Force Participation Rate (c)
Non-Native Males Ages 20-64	2	2	1.00
Non-Native Females Ages 20-64	2	2	1.00
Native Males Ages 20-64	16	16	1.00
Native Females Ages 20-64	13	13	1.00
Total	32	33	

(a)ISER estimates.

(b)1980 Census data.

(c)Number employed/population.

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Appendix J

RAM **Model** Assumptions Common to **All** Communities

This appendix presents worksheets of RAM Model assumptions which were the same **for** each **of** the communities included in this report.

WORKSHEET 2. SURVIVAL RATE ASSUMPTIONS
FOR POPULATION MODEL

(Share of population which
does not die each year)

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	.99654	.99757	.99171	.99413
5-14	.99964	1.0000 "	.99894	.99952
15-19	.99848	1.0000	.99260	.99634
20-34	.99742	.99926	.99164	.99674
35-64	.99310	.99671	.98817	.99403
65+	.94008	.96612	.93506	.97311

NOTE: Variable names for each column are SVRANNM1, ...,
SVRANNM6; SVRANNF1, . . ., SVRANNF6; SVRANAM1, . . ., SVRANAM6;
SVRANAF1, . . ., SVRANAF6.

SOURCE: We assume the same cohort survival rates for all commu-
nities due to the absence of reliable community-specific
data. We calculated the survival rates from 1980 census
total population and mortality figures for non-Anchorage
Alaska residents.

WORKSHEET 3. FERTILITY RATE ASSUMPTIONS
FOR POPULATION MODEL

(Share of women giving birth each year)

	Non-Native		Native	
	Variable		Variable	
Age Group	Name	Value	Name	Value
15-19	FRNN03	.04033	FRNA03	.13668
20-34	FRNN04	.11641	FRNA04	.18235
35-64	FRNN05	.02084 "	FRNA05	.03727

SOURCE: We assume the same cohort fertility rates for all communities due to the absence of reliable community-specific data. The rates are based on data for non-Anchorage Alaska. The number of births are from the Alaska Department of Health and Social Services, Office of Information Systems and the Alaska Native Medical Center, Anchorage. Non-Anchorage figures are derived by subtracting Anchorage from statewide data.

WORKSHEET **4. SHIFT FACTOR** ASSUMPTIONS

(Share of population which does not
advance to the next age group each year)

Age Group	Variable Name	
0-4	SFPA01	.80
5-14	SFPA02	.90
15-19	SFPA03	.80
20-34	SFPA04	.9333
35-64	SFPA05 "	.9667
65+	SFPA06	1.0000

SOURCE:

Calculated using the formula $1 - \dfrac{1}{(\text{number of age-years in group})}$

WORKSHEET 5. INFANT SURVIVAL AND SEX
DISTRIBUTION ASSUMPTIONS

Variable	Variable Name	Value
Infant survival rates		
Native		
Males	IFSVNAMA	1.0
Females	IFSVNAFE	1.0
Non-Native		
Males	IFSVNNMA	1.0
Females	IFSVNNFE	1.0
Sex distribution of infants		
Native	SXDVNA	0.513
Non-Native	SXDVNN	0.518

SOURCE :   We assumed these figures in the absence of better data. "

WORKSHEET 8.   STATE GOVERNMENT PER CAPITA
OPERATING AND CAPITAL EXPENDITURES

(Thousands of Real Dollars)

	State Government per capita operating Expenditures (STPCOE)	State Government per capita capital Expenditures (STPCCE)
1980		
1981	4.210	1.831
1982	4.758	2.293
1983	4.602	1.684
1984	5.138	2.014
1985	5.130 "	1.452
1986	5.121	2.710
1987	4.801	2.526
1988	5.294	2.820
1989	5.102	2.710
1990	5.075	2.710
1991	5.068	2.710
1992	4.365	2.298
1993	4.108	2.146
1994	3.944	2.050
1995	3.672	1.890
1996	3.422	1.742
1997	3.351	1.700
1998	3.258	1.645
1999	3.248 "	1.640
2000	3.194	1.609
2001	3.142	1.579
2002	3.084	1.548
2003	3.036	1.517
2004	2.992	1.492
2005	2.949	1.468
2006	2.904	1.442
2007	2.861	1.418
2008	2.819	1.395
2009	2.778	1.372
2010	2.736	1.349

SOURCE: These figures are based on recent ISER MAP model
projections for the statewide economy (DSET A83T2).

APPENDIX K: RAM MODEL ASSUMPTIONS
FOR UNALASKA PROJECTIONS

The following worksheets provide a complete list of the assumptions which we used in our Unalaska RAM Model projections, except, for our OCS employment assumptions which are given in Appendix N.

We have prepared seven "cases," or sets of model projections, for Unalaska. Except where noted, 'the same assumptions are used for all seven projections. Where assumptions differ, we use the following notation to refer to different cases:

    L   Low base case
    M   Medium base case
    H   High base case

WORKSHEET 1. POPULATION ASSUMPTIONS FOR BASE YEAR

Total Population (PO) _____724_____

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	21	14	8	3
5-14	25	37	19	21
15-19	44	29	16	10
20-34	179	85	46	29
35-64	58	26	28	14
65+	4	2	3	3

Note: Variable names for each column are
PONNM1, . . ., PONNM6; PONNF1, ... PONNF6;
PONAM1, . . ., PONAM6; PONAF1, ... PONAF6.

SOURCE: U.S. Bureau of the Census, 1980 Census. Special census tape printouts on file at Institute of Social and Economic Research, Anchorage.

WORKSHEET **2.** **SURVIVAL RATES** AND FERTILITY **RATES** ASSUMPTIONS

Survival Rates (Share of population **which** does not die each year)

Age Group	Non-Native		Native	
	Male	**Female**	M a l e	-Fernale
0-4	.99654	.99757	.99171	.99413
5-14	.99964	100000	.99894	.99952
15-19	.99848	100000	.99260	.99634
20-34	.99742	.99926	.99164	.99674
35-64	.99310	.99671	.98817	.99403
65+	.94008	.96612	.93506	.97311

Note: Variable **names** for each **column** are SVRANNM1, . . ., SVRANNM6;
SVRANNF1, . . ., SVRANNF6; SVRANAM1, . . .,SVRANAM6;
SVRANAF1, . . .,SVRANAF6.

SOURCE: Calculated from **1980** census figures for total population
and mortality for **non-Anchorage Alaska** residents.

Fertility Rates (Share of women **giving birth** each year)

Age Group	Non-Native		Native	
	Variable Name	Value	Variable Name	**Value**
15-19	**FRNN03**	.04033	**FRNA03**	.13668
20-34	**FRNN04**	.11641	**FRNA04**	.18235
35-64	**FRNN05**	.02084	**FRNA05**	.03727

SOURCE: These rates **are** based on data **for** non-Anchorage Alaska.
The **number of** births are from the **Alaska Department of**
Health and Social Services, Office **of** Information Systems
and the **Alaska** Native Medical Center, Anchorage. Non-
Anchorage figures were derived **by** subtracting Anchorage
from statewide data.

WORKSHEET **3:** OTHER **POPULATION MODEL** ASSUMPTIONS

Shift Factors (Share of population which doesnot advance
to the next age group each year)

Age Group	Variable Name	Shift Factor
0-4	SFPA01	.80
5-14	SFPA02	.90
15-19	SFPA03	.80
20-34	SFPA04	.9333
35-64	SFPA05	.9667
65+	SFPA06	1.0000

NOTE : Calculated using the formula

$$1 - \frac{1}{(\text{number of age-years in group})}$$

Infant Survival and Sex Distribution Assumptions

	Variable Name	value
Infant survival rates		
Native		
Males	IFSVNAMA	1.0
Females	IFSVNAFE	1.0
Non-Native		
Males	IFSVNNMA	1.0
Females	IFSVNNFE	1.0

Sex distribution of infants

	Variable Name	value
Native	SXDVNA	.5
Non-Native	SXDVNN	.5

WORKSHEET 4.   POPULATION,   EMPLOYMENT,   **WAGES, INCOME**
AND STATE PER CAPITA SPENDING **IN** BASE YEAR

Variable	Variable Name	Value
Total Population	**PO**	724
Total Basic Employment	EMBA	110
Resident fishing employment	EMFI	50
Resident fish processing employment	EMFP	58
Nonfishing related basic employment	EMBANF	2
Total Support Employment	**EMSU**	200
Exogenous support employment	EMSUEX	59
Endogenous support employment	EMSUEG	82
Government-sponsored support **employment**	EMSUGO	0
Enclave-sponsored support employment	EMSUEN	5 9
Total Government Employment	EMGO	82
Exogenous government employment	EMGOEX	6
Endogenous government employment	EMGOEG	76
Total Resident Employment		392
Nonproject enclave employment	EMENNOPJ	1,108
Military enclave employment	EMML	0
Basic sector **annual** wage rate	WABA	17.6
Support sector annual wage rate	WASU	21.4
Government sector **annual** wage rate	WAGO	17.3
Income
Total wage income (thousands **of $)**	INWA	7,635
Nonwage income **per** capita (thousands of **$)**	INNOWAPC	0
Total income (thousands of **$)**	IN	7,635
State Per **Capita Spending** (Thousands of **Dollars)**		
Per capita operating expenditures	STPCOE	3.577
Per capita capital expenditures	STPCCE	1.186

SOURCES: Population: **worksheet 1.**
Employment and income: Appendix **D**
State per capita spending: worksheet **4.**

WORKSHEET 5: MULTIPLIER CALCULATIONS

Multiplier	Name	Formula	Value
Endogenous support employment multiplier	EMSUEGC1	$\dfrac{EMSUEG}{IN}$	.0107
Erogenous government employment multiplier	EMGOEGC1	$\dfrac{EMGOEG}{PO * STPCOE}$	.0293
Government-sponsored support employment multiplier	EMSUGOC1	$\dfrac{EMSUGO}{PO * STPCCE}$	" 0 "
Nonproject enclave-generated support employment multiplier	EMSUENC1	$\dfrac{EMSUEN}{EMEN}$	.0532
Project enclave-generated support employment multiplier	EMSUENC2	$\dfrac{EMSUEN}{EMEN}$	.05

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WORKSHEET 6. STATE GOVERNMENT PER CAPITA
OPERATING AND CAPITAL EXPENDITURES

(Thousands of Real Dollars)

	State Government per capita operating Expenditures (STPCOE)	State Government per capita capital Expenditures (STPCCE)
1980	3.577	1.186
1981	4.210	1.831
1982	4.758	2.293
1983	4.602	1.684
1984	5.138	2.014
1985	5.130	1.452
1986	5.121	2.710
1987	4.801	2.526
1988	5..294	20820
1989	5.102	2.710
1990	5.075	2.710
1991	5.068	2.710
1992	4.365	2.298
1993	4.108	2.146
1994	3.944	2.050
1995	3.672	1.890
1996	3.422	1.742
1997	3.351	1.700
1998	3.258	1.645
1999	3.248	1.640
2000	3.194	1.609
2001	3.142	1.579
2002	3.084	1.548
2003	3.036	1.517
2004	2.992	1.492
2005	2.949	1.468
2006	2.904	1.442
2007	2.861	1.418
2008	2.819	1.395
2009	2.778	1.372
2010	2.736	1.349

SOURCE: These figures are based on recent ISER MAP model
projections for the statewide economy (DSET A83T2).

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WORKSHEET 7. WAGE AND NONWAGE INCOME
ASSUMPTIONS FOR PROJECTION PERIOD
(Thousands of Real Dollars)

	Per Capita Nonwage Income (INNOWAPC)	Basic Sector Wage Rate (WABA)	Support Sector Wage Rate (WASU)	Government Sector Wage Rate (WAGO)	Project Sector Wage Rate (WAPJ)
1980	0	17.6	21.4	17.3	30
1981	0	17.6	21.4	17.3	30
1982	0	17.6	21.4	17.3	30
1983	0	17.6	21.4	17.3	30
1984	0	17.6	21.4	17.3	30
1985	0	17.6	21.4	17.3	30
1986	0	17.6	21.4	17.3	30
1987	0	17.6	21.4	17.3	30
1988	0	17.6	21.4	17.3	30
1989	0	17.6	21.4	17.3	30
1990	0	17.6	21.4	17.3	30
1991	0	17.6	21.4	17.3	30
1992	0	17.6	21.4	17.3	30
1993	0	17.6	21.4	17.3	30
1994	0	17.6	21.4	17.3	30
1995	0	17.6	21.4	17.3	30
1996	0	17.6	21.4	17.3	30
1997	0	17.6	21.4	17.3	30
1998	0	17.6	21.4	17.3	30
1999	0	17.6	21.4	17.3	30
2000	0	17.6	21.4	17.3	30
2001	0	17.6	21.4	17.3	30
2002	0	17.6	21.4	17.3	30
2003	0	17.6	21.4	17.3	30
2004	0	17.6	21.4	17.3	30
2005	0	17.6	21.4	17.3	30
2006	0	17.6	21.4	17.3	30
2007	0	17.6	21.4	17.3	30
2008	0	17.6	21.4	17.3	30
2009	0	17.6	21.4	17.3	30
2010	0	17.6	21.4	17.3	30

NOTE : We arbitrarily assume an annual wage of $30,000 for project
(OCS-related) employees.

WORKSHEET **8.** **BASIC** SECTOR EXOGENOUS EMPLOYMENT ASSUMPTIONS
(Full-time Equivalent Employment)

Year	Resident Fishing Employment (EMFI)			Resident Fish-processing Employment (EMFP)			Non-Fishing Related Basic Employment (EMBANF)	Nonproject Enclave Employment (EMENNOPJ)		
	L	M	H	L	M	H		L	M	H
1980	50	50	50	58	58	5 8	2	1108	1108	1108
1981	50	50	50	58	58	58	2	609	609	609
1982	50	50	50	58	58	58	2	233"	233	233
1983	50	50	50	58	58	58	2	166	166	166
1984	·52	52	52	62	62	62	2	186	186	186.
1985	54	54	54	66	66	.66	2	206	262	412
1986	56	56	60	70	70	78	2	226	337"	503
1987	58	58	70	74	74	98	2	246	412	654
1988	60	60	80	78	78	118	2	266	488	815
1989	62	65	90	82	88	138	2	342	593	976
1990	64	70	100	86	98	158	2	417	699	1136
1991	66	80	125	90	118	208	2	492	854	1372
1992	68	90	150	94	138	258	2	512	1009	1608
1993	70	100	175	98	158	308	2	532	1165	1733
1994	72	110	200	102	178	358	2	5 5 2	1320	1858
1995	74	120	225	106	198	408	2	572	1476	1983
1996	75	130	250	108	218	458	2	582	1576	2108
1997	75	140	300	108	238	558	2	582	1676	2358
1998	75	150	350	108	258	658	2	582	1776	2608
1999	75	150	400	108	258	758	2	582	1776	2858
2000	75	150	450	108	258	858	2	582	1776	3108
2001	75	150	450	108	258	858	2	582	1776	3108
2002	75	150	450	108	258	858	2	582	1776	3108
2003	75	150	'450	108	258	858	2	582"	1776	3108
"2004.	75	150	450	108	258	858	2	-582	1776	3108
2005	75	150	450	108	258	858	2	582	.1776	.3108..
2006	75	150	450	108	258	858	2	582	'1776.	3108..
2007	75	150	450	108	258	858	2	582	1776	3108
-2008	75	150	450	108	258	858	2	582	1776	3108
2009	75	150	450	108	258	858	2	582"	.1776	3108
2010	75	150	450	108	258	858	2	582	1776	3108

WORKSHEET 9. SUPPORT AND GOVERNMENT SECTOR EXOGENOUS
EMPLOYMENT ASSUMPTIONS

Year	Exogenous Support Employment (EMSUEX)	Exogenous Government Employment (EMGOEX)
1981	59	6
1982	59	6
1982	59	6
1983	59	6
1984	59	6
1985	59	6
1986	59	6
1987	59	6
1988	59	6
1989	59	6
1990	59	6
1991	59	6
1992	59	6
1993	59	6
1994	59	6
1995	59	6
1996	59	6
1997	59	6
1998	59	6
1999	59	6
2000	59	6
2001	59	6
2002	59	6
2003	59	6
2004	59	6
2005	59	6
2006	59	6
2007	59	6
2008	59	6
2009	59	6
2010	59	6

WORKSHEET 10. **LABOR** FORCE PARTICIPATION **RATE** ASSUMPTIONS

Age Group	Non-Native		Native	
	Male	Female	Male	Female

Labor Force Partic-ipation Rates (Note: Variable names are, ., 6; LFPRNNM3, LFPRNNF3, . . ., 6; LFPRNAM3, . . ., 6; LFPRNAF3, . . ., 6)

Age Group	Male	Female	Male	Female
15-19	0	0	0	0
20-34	1	.8	.6	.5
35-64	1	.8	.6	.5
65+	0	0	0	0

Population (from Base Year Worksheet ')

Age Group	Male	Female	Male	Female
15-19	44	29	16	10
20-34	179	85	46	29
35-64	58	26	2$	14
65+	4	2	3	3

Check: Employment in Base Year

Age Group	Male	Female	Male	Female
15-19	0	0	0	o
20-34	179	68	28	14
35-64	58	21	17	7
65+	o	0	0	0

TOTAL   8

Total Resident Employment = ___392___
Total Resident Employment (from Worksheet **3)** = ___392___

SOURCE: Table D-7.

WORKSHEET 11. ENDOGENOUS OUT-MIGRATION
PARAMETERS ASSUMPTIONS

Variable	Variable Name	Value
Threshold maximum increase in unemployment before out-migration begins	HIUNRA	0
Threshold maximum decrease in unemployment before in-migration begins ,	LWUNRA	0
Share of unemployed native workers who leave once unemployment rises above threshold level	OULAPANA	0
Share of unemployed non-native workers who leave once unemployment rises above threshold level	OULAPANN	1
Adjustment. parameter for ratio of native dependents who out-migrate to native workers who out-migrate (a value of one indicates that this ratio is the same as the ratio of native dependents to native workers in the population)	OUDEPANA	1
Adjustment parameter for ratio of non-native dependents who out-migrate to non-native workers who out-migrate	OUDEPANN	1

WORKSHEET 12. **ENDOGENOUS** IMMIGRATION PARAMETERS ASSUMPTIONS:
NUMBER OF PERSONS WHO IMMIGRATE **IN** EACH COHORT
FOR EACH WORKER WHO IMMIGRATES

Age Group	Non-Native		Native	
	Male	Female	Male	**Female**
0-4	.064	.043	0	0
5-14	.077	.113	0	0
15-19	.135	.089	0	0
20-34	.549	.261	0	0
35-64	.178	.080	0	0
65+	.012	.006	0	

Note: Variables are **MGPANNM1, . . ., MGPANNM6; MGPANNF1, . . .,
MGPANNF6; MGPANAM1, . . ., MGPANAM6; MGPANAFI, . . .,
MGPANNF6.**

Note: calculated as **ratio of non-Native** population in each
cohort (see worksheet **1)** to **total** non-Native employment
of 326 (see worksheet **10).**

WORKSHEET 13. EXOGENOUS MIGRATION PARAMETER ASSUMPTIONS:
SHARE OF EACH COHORT WHICH MIGRATES IN OR OUT EACH
YEAR IN RESPONSE TO NON-ECONOMIC (EXOGENOUS) FACTORS

Age Group	Non-Native Male	Non-Native Female	Native Male	Native Female
0-4	-.9	-.9	0	0
5-14	-.9	-.9	0	1
15-19	-.9	-.9	0	0
20-34	-.9	-.9	0	0
35-64	-.9	-.9	0	00
65+	-.9	-.9	0	0

Note: Variables are MXRANNM1, . . ., MXRANNM6; MXRANNF1, . . ., MXRANNF6; MXRANAM1, . . ., MXRANAM6; MXRANAF1, . . ., MXRANAF6.

Exogenous migration parameter for
skilled labor (MXRASK)   -.9

Note: The assumption of high exogenous migration parameters
        implies high turnover among resident non-Natives so that
        the age distribution of non-Natives remains relatively
        constant over time. We realize that this pattern of high
        turnover is not characteristic of all Unalaska
        ncm-Natives, but modeling constraints require that we
        choose between this assumption and an assumption of no
        turnover or transiency in resident non-Native population.

WORKSHEET 14. MISCELLANEOUS EXOGENOUS ASSUMPTIONS

	Enclave Military Employment (EMML)	Enclave Military Dependents (DEML)
1982		
1983		
1984		
1985		
1986		
1987	0	
1988	0	0
1989	0	0
1990	0	0
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0

NOTE: We did not treat Unalaska's small military population as a separate enclave.

WORKSHEET 15. PROJECT EMPLOYMENT PARAMETERS

Residency and Commuter Parameters

	Share of Project Jobs Reserved for Nonresidents by Industry	Share of Nonresident Workers Brought in to Fill Excess Demand Who Become Residents	Share of Nonresident Workers Who Only Commute Thru Community (ie, Do Not Live in Enclaves; Mostly Offshore Workers)
-Onshore Short-term Skilled	SNPSONSK 1	SRPSONSK 0	CPPSONSK 0
Onshore Short-term Unskilled	SNPSONNS 0	SRPSONNS 0	CPPSONNS 0
Onshore Long-term illed	SNPLONSK 0	SRPLONSK 1	CPPLONSK 0
Onshore Long-term Unskilled	SNPLONNS 0	SRPLONNS 1	CPPLONNS 0
Offshore Short-term Skilled	SNPSOFSK 1	SRPSOFSK 0	CPPSOFSK 1
Offshore Short-term Unskilled	SNPSOFNS 1	SRPSOFNS 0	CPPSOFNS 1
Offshore Long-term Skilled	SNPLOFSK 1	SRPLOFSK 0	CPPLOFSK 1
-Offshore Long-term Unskilled	SNPLOFNS 1	SRPLOFNS 0	CPPLOFNS 1

Skill and Training Parameters

Variable	Variable Name	Value
Number of skilled workers in year prior to first projection year	LSSK	0
Maximum share of nonskilled workers who are trained for project jobs in any given year	TNPANS	0
Maximum share of excess demand for skilled labor which is filled by training local labor in any given year	TNPAED	0

WORKSHEET **16.** PROJECT EMPLOYMENT ASSUMPTIONS

O N S H O R E

Year	Short-term		Long-term	
	Skilled	Unskilled	Skilled	**Unskilled**
	EMPSONSK	**EMPSONNS**	**EMPLONSK**	**EMPLONNS**
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005.				
2006				
2007				
2008				
2009				
2010				

NOTE : See Appendix **N for** OCS employment assumptions.

WORKSHEET 16. PROJECT EMPLOYMENT ASSUMPTIONS
(Continued)

O F F S H O R E

Year	Short-term		Long-term	
	Skilled	Unskilled	Skilled	Unskilled
	EMPSOFSK	EMPSOFNS	EMPLOFSK	EMPLOFNS
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				

SOURCE: For OCS impact projections, assumptions are provided by Alaska OCS office. NOTE: The term "skilled" refers to jobs requiring previous special oil-industry-related training or experience.

APPENDIX L: RAM MODEL ASSUMPTIONS
FOR COLD BAY PROJECTIONS

The following worksheets provide a complete list of the assumptions which we used in our Cold Bay RAM Model projections, except for OCS employment assumptions which are given in Appendix N.

We have prepared seven "cases," or sets of model projections, for Cold Bay. Except where noted, the same assumptions are used for all seven cases. Where assumptions differ, we use the following notation to refer to different cases:

L   Sale 89 low base case.

M   Sale 89 medium base case and all other cases except the
        Sale 89 low base case and the Sale 89 high base case.

H   Sale 89 high base case.

WORKSHEET 1.   POPULATION ASSUMPTIONS FOR BASE YEAR

Total Population (PO) _____228_____

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	7	10	0	1
5-14	9	9	0	1
15-19	10	6	1	0
20-34	61	29	3	1
.35-64	53		2	1
65+	1	0	0	0

Note: Variable names for each column are
PONNM1, . . ., PONNM6; PONNF1, . . ., PONNF6;
PONAM1, . * ., PONAM6; PONAF1, . . ., PONAF6.

WORKSHEET 2.   SURVIVAL RATES AND FERTILITY RATES ASSUMPTIONS

Survival Rates (Share of population which does not die each year)

Age Group	Non-Native Male	Non-Native Female	Native Male	Native Female
0-4	.99654	.99757	.99171	.99413
5-14	.99964	1.0000	.99894	.99952
-15-19	.99848	1.0000	.99260	.99634
20-34	.99742	.99926	.99164	.99674
35-64	.99310	.99671	.98817	.99403
65+	.94008	.96612"	.93506	.97311

Note: Variable names for each column are SVRANNM1, . . ., SVRANNM6;
SVRANNF1, . . ., SVRANNF6 ;   SVRANAM1, . . .,SVRANAM6;
SVRANAF1, . . .,SVRANAF6.

SOURCE : Calculated from 1980 census figures for total population
and mortality for non-Anchorage Alaska residents.

Fertility Rates (Share of women giving birth each year)

Age Group	Non-Native Variable Name	Non-Native Value	Native Variable Name	Native Value
15-19	FRNNO3	.04033	FRNAO3	.13668
20-34	FRNNO4	.11641	FRNAO4	.18235
35-64	FRNNO5	.02084	FRNAO5	.03727

SOURCE : These rates are based on data for non-Anchorage Alaska.
The number of births are from the Alaska Department of.-
Health and Social Services, Office of Information Systems
and the Alaska Native Medical Center, Anchorage. Non-
Anchorage figures were derived by subtracting Anchorage
from statewide data.

WORKSHEET 3: OTHER POPULATION MODEL ASSUMPTIONS

Shift Factors (Share of population which does not advance
            to the next age group each year)

Age Group	Variable Name	Shift Factor
0-4	SFPA01	.80
5-14	SFPA02	.90
15-19	SFPA03	.80
20-34	SFPA04	.9333
35-64	SFPA05	.9667
65+	SFPA06	1.0000

NOTE: Calculated using the formula $1 - \dfrac{1}{(\text{number of age-years in group})}$

Infant Survival and Sex Distribution Assumptions

Variable	Variable Name	Value
Infant survival rates		
Native		
Males	IFSVNAMA	1.0
Females	IFSVNAFE	1.0
Non-Native		
Males	IFSVNNMA	1.0
Females	IFSVNNFE	1.0
Sex distribution of infants		
Native	SXDVNA	.5
Non-Native	SXDVNN	.5

WORKSHEET 4. POPULATION, EMPLOYMENT, WAGES, INCOME
AND STATE PER CAPITA SPENDING IN BASE YEAR

<u>Variable</u>	<u>Variable Name</u>	<u>Value</u>
<u>Total Population</u>	<u>PO</u>	228
<u>Total Basic Employment</u>	EMBA	6
Resident fishing employment	EMFI	0
Resident fish processing employment	EMFP	6
Nonfishing related basic employment	EMBANF	
Total Support Employment	EMSU	85
Exogenous support employment	EMSUEX	71
Endogenous support employment	EMSUEG	14
Government-sponsored support employment	EMSUGO	0
Enclave-sponsored support employment	EMSUEN	0
Total. Government Employment	EMGO	63
Exogenous government employment	EMGOEX	54
Endogenous government employment	EMG EG	0
Total Resident Employment		154
Nonproject enclave employment	EMENNOPJ	0
Military enclave employment	EMML	0
Basic sector annual wage rate	WABA	17.6
Support sector annual wage rate	WASU	21.4
Government sector annual wage rate	WAGO	17.3
Income		
Total *wage* income	INWA	3,015
Nonwage income per capita	INNOWAPC	0.
tal income	IN	3,015
State Per Capita Spending (Thousands of Dollars)		
Per capita operating expenditures	STPCOE	4.758
Per capita capital expenditures	STPCCE	2.293

SOURCES: Population worksheet 1.
           Employment and income: Appendix E
           State per capita spending: worksheet 4.

WORKSHEET 5: MULTIPLIER CALCULATIONS

Multiplier	Name	Formula	Value
Endogenous support employment multiplier	EMSUEGC1	$\dfrac{\text{EMSUEG}}{\text{IN}}$	.0046
Endogenous government employment multiplier	EMGOEGC1	$\dfrac{\text{EMGOEG}}{\text{PO} * \text{STPCOE}}$	.0083
Government-sponsored support employment multiplier	EMSUGOC1	$\dfrac{\text{EMSUGO}}{\text{PO} * \text{STPCCE}}$	0
Nonproject enclave-generated support employment *multiplier*	EMSUENC1	$\dfrac{\text{EMSUEN}}{\text{EMENNOPJ}}$	-.O. "
Project enclave-generated support employment multiplier	EMSUENC2	$\dfrac{\text{EMSUEN}}{\text{EMEN}}$	.05

WORKSHEET 6. STATE GOVERNMENT PER CAPITA
OPERATING AND CAPITAL EXPENDITURES

(Thousands of Real Dollars)

Year	State Government per capita operating Expenditures (STPCOE)	State Government per capita capital Expenditures (STPCCE)
1981	4.210	1.831
1982	4.758	2.293
1983	4.602	1.684
1984	5.138	2.014
1985	5.130	1.452
1986	5.121	2.710
1987	4.801	2.526
1988	5.294	2.820
1989	5.102	2.710
1990	5.075	2.710
1991	5.068	2.710
1992	4.365	2.298
1993	4.108	2.146
1994	3.944	2.050
1995	3.672	1.890
1996	3.422	1.742
1997	3.351	1.700
1998	3.258	1.645
1999	3.248	1.640
2000	3.194	1.609
2001	3.142	1.579
2002	3.084	1.548
2003	3.036	1.517
2004	2.992	1.492
2005	2.949	1.468
2006	2.904	1.442
2007	2.861	1.418
2008	2.819	1.395
2009	2.778	1.372
2010	2.736	1.349

SOURCE: These figures are based on recent ISER MAP model
projections for the statewide economy (DSET A83T2).

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WORKSHEET 7. WAGE AND NONWAGE INCOME
ASSUMPTIONS FOR PROJECTION PERIOD
(Thousands of Real Dollars)

	Per Capita Nonwage Income (INNOWAPC)	Basic Sector Wage Rate (WABA)	Support Sector Wage Rate (WASU)	Government Sector Wage Rate (WAGO)	Project Sector Wage Rate (WAPJ)
1982	0	17.6	21.4	17.3	30
1983	0	17.6	21.4	17.3	30
1984	0	17.6	21.4	17.3	30
1985	0	17.6	21.4	17.3	30
1986	0	17.6	21.4	17.3	30
1987	0	17.6	21.4	17.3	30
1988	0	17.6	21.4	17.3	30
1989	0	17.6	21.4	17.3	30
1990	0	17.6	21.4	17.3	30
1991	0	17.6	21.4	17.3	30
1992	0	17.6	21.4	17.3	30
1993	0	17.6	21.4	17.3	30
1994	0	17.6	21.4	17.3	30
1995	0	17.6	21.4	17.3	30
1996	0	17.6	21.4	17.3	30
1997	0	17.6	21.4	17.3	30
1998	0	17.6	21.4	17.3	30
1999	0	17.6	21.4	17.3	30
2000	0	17.6	21.4	17.3	30
2001	0	17.6	21.4	17.3	30
2002	0	17.6	21.4	17.3	30
2003	0	17.6	21.4	17.3	30
2004	0	17.6	21.4	17.3	30
2005	0	17.6	21.4	17.3	30
2006	0	17.6	21.4	17.3	30
2007	0	17.6	21.4	17.3	30
2008	0	17.6	21.4	17.3	30
2009	0	17.6	21.4	17.3	30
2010	0	17.6	21.4	17.3	30

NOTE: We arbitrarily assume an annual wage of $30,000 for project (OCS-related) employees.

WORKSHEET 8.   BASIC SECTOR EXOGENOUS EMPLOYMENT ASSUMPTIONS
(Full-time Equivalent Employment)

Year	Resident Fishing Employment (EMFI)	Resident Fish-processing Employment (EMFP)		Non-Fishing Related Basic Employment (EMBANF)	Nonproject Enclave Employment (EMEN)
		L/M	H		
1982	0	6	6	0	0
1983	0	6	8	0	0
1984	0	6	10	0	0
1985	0	6	12	0	0
1986	0	6	14	0	0
1987	0	6	16	0	0
1988	0	6	18	0	0
1989	0	6	20	0	0
1990	0	6	22	0	0
1991	0	6	24	0	0
1992	0	6	26	0	0
1993	0	6	28	0	0
1994	0	6	30	0	0
1995	0	6	32	0	0
1996	0	6	34	0	0
1997	0	6	36	0	0
1998	0	6	38	0	0
1999	0	6	40	0	0
2000	0	6	42	0	0
2001	0	6	44	0	0
2002	0	6	46	0	0
2003	0	6	48	0	0
2004	0	6	50	0	0
2005	0	6	52	0	0
2006	0	6	'54	0	0
2007	0	6	56	0	0
2008	0	6	58	0	0
2009	0	6	60	0	0
2010	0	6	62	0	0

WORKSHEET 9. SUPPORT AND GOVERNMENT SECTOR EXOGENOUS
EMPLOYMENT ASSUMPTIONS

Year	Exogenous Support Employment (EMSUEX)			Exogenous Government Employment (EMGOEX)		
	L	M	H	L	M	H
1982	71	71	71	54	54	54
1983	62	62	71	46	46	54
1984	60	60	71	43	43	54
1985	58	58	71	39	39	54
1986	56	56	71	38	-38	54
1987	54	54	71	37	37	54
1988	52	52	71	36	36	54
1989	51	51	71	35	35	54
1990	50	50	71	34	35	54
1991	49	50	71	33	35	54
1992	48	50	71	32	35	54
1993	47	50	71	31	35	54
1994	46	50	71	31	35	54
1995	45	50	71	31	35	54
1996	44	50	71	31	35	54
1997	43	50	71	31	35	54
1998	42	50	71	31	35	54
1999	41	50	71	31	35	54
2000	40	50	71	31	35	54
2001	40	50	71	31	35	5 4
2002	40	50	71	31	35	5 4
2003	40	50	71	31	35	54
2004	40	50	71	31	35	54
2005	40	50	71	31	35	54
2006	40	50	71	31	35	54
2007	40	50	71	31	35	54
2008	40	50	71	31	35	54
2009	40	50	71	31	35	54
2010	40	50	71	31	35	54

WORKSHEET 8. LABOR FORCE PARTICIPATION RATE ASSUMPTIONS

	Age Group	Non-Native		Native	
		Male	Female	Male	Female
Labor Force Partic-ipation Rates (Note: Variable names are LFPRNNM3, . . ., 6; LFPRNNF3, . . ., 6; LFPRNAM3, . . ., 6; LFPRNAF3, . . ., 6)	15-19	0	0	0	0
	20-34	1	.63	1	.63
	35-64	1	.63	1	.63
	65+	1	.63	1	.63
Population in Base Year (from Worksheet 1)	15-19	10	6	1	0
	20-34	61	29	3	1
	35-64	53	23	2	1
	65+	1	0	0	0
Check: Employment in Base Year	15-19	0	0	0	0
	20-34	61	18.3	3	.6
	35-64	53	14.5	2	.6
	65+	1	0	0	0
TOTAL		114	32.8	5	1.2

Total Resident Employment = ___154___
Total Resident Employment (from Worksheet 4) = ___154___

WORKSHEET 9. ENDOGENOUS OUT-MIGRATION
PARAMETERS ASSUMPTIONS

Variable	Variable Name	Value
Threshold maximum increase in unemployment before out-migration begins	HIUNRA	0
Threshold maximum decrease in unemployment before in-migration begins	LWUNRA	0
Share of unemployed native workers who leave once unemployment rises above threshold level	OULAPANA	·1
Share of unemployed non-native workers who leave once unemployment rises above threshold level	OULAPANN	·1
Adjustment parameter for ratio of native dependents who out-migrate to native workers who out-migrate (a value of one indicates that this ratio is the same as the ratio of native dependents to native workers in the population)	OUDEPANA	·1
Adjustment parameter' for ratio of non-native dependents who out-migrate to non-native workers who out-migrate	OUDEPANN	·1

WORKSHEET 10. ENDOGENOUS IMMIGRATION PARAMETERS ASSUMPTIONS:
NUMBER OF PERSONS WHO IMMIGRATE IN EACH COHORT
FOR EACH WORKER WHO IMMIGRATES

	Non-Native		Native	
Age Group	Male	Female	Male	Female
0-4	.045	.065	o	.006
5-14	.058	.058	0	.006
15-19	.065	.039	.006	0
20-34	.396	.188	.019	.006
35-64	.344		.013	. 0 0
65+	.006	0	o	0

Note: Variables are MGPANNM1, . . ., MGPANNM6; MGPANNF1, . . .,
MGPANNF6; MGPANAM1, . . ., MGPANAM6; MGPANAFI, . . .,
MGPANNF6; values are calculated as ratio of population in
each cohort (see worksheet 1) to total employment (154).

WORKSHEET 11.   EXOGENOUS MIGRATION FARMETER ASSUMPTIONS:
SHARE OF EACH COHORT WHICH MIGRATES IN OR OUT EACH
YEAR IN RESPONSE TO NON-ECONOMIC (EXOGENOUS) FACTORS

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	-.9	-.9	-.9	-.9
	-.9	-.9	-.9	-.9
15-19	-.9	-.9	-.9	-.9
20-34	-.9	-.9	-.9	-.9
35-64	-.9	-.9	-.9	-.9
65+	-.9	-.9	-.9	-.9

Note: Variables are MXRANNM1, . . ., MXRANNM6; MXRANNF1, . . .,
MXRANNF6; MXRANAM1, . . ., MXRANAM6; MXRANAFI, . . .,
MXRANAF6.

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12. MISCELLANEOUS EXOGENOUS ASSUMPTIONS

	Enclave Military Em EML	Enclave Military Dependents (DEML)
1982	0	0
1983	0	0
1984	0	0
1985	0	0
1986	0	0
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0

NOTE: Due to the enclave character of the entire Cold Bay community, we did not treat the military as a separate enclave.

WORKSHEET 13. PROJECT EMPLOYMENT PARAMETERS

Residency and Commuter Parameters

	Share of Project Jobs Reserved for Nonresidents by Industry	Share of Nonresident Workers Brought in to Fill Excess Demand Who Become Residents	Share of Nonresident Workers Who Only Commute Thru Community (ie Do Not Live in Enclaves; Mostly Off-shore Workers)
Onshore Short-term Skilled	SNPSONSK 1	SRPSONSK 0	CPPSONSK 0
Onshore Short-term Unskilled	SNPSONNS 1	SRPSONNS 0	CPPSONNS 0
Onshore Long-term Skilled	SNPLONSK 0	SRPLONSK 1	CPPLONSK 0
Onshore Long-term Unskilled	SNPLONNS 0	SRPLONNS 1	CPPLONNS 0
Offshore Short-term Skilled	SNPSOFSK 1	SRPSOFSK 0	CPPSOFSK 1
Offshore Short-term Unskilled	SNPSOFNS 1	SRPSOFNS 0	CPPSOFNS 1
Offshore Long-term Skilled	SNPLOFSK 1	SRPLOFSK 0	CPPLOFSK 1
"offshore Long-term Unskilled	SNPLOFNS 1	SRPLOFNS 0	CPPLOFNS 1

Skill and Training Parameters

Variable	Variable-Name	Value
Number of skilled workers in year prior to first projection year	LSSK	0
Maximum share of nonskilled workers who are trained for project jobs in any given year	TNPANS	0
Maximum share of excess demand for skilled labor which is filled by training local labor in any given year	TNPAED	0

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WORKSHEET 16. PROJECT EMPLOYMENT ASSUMPTIONS

O N S H O R E

Year	Short-term		Long-term	
	Skilled EMPSONSK	Unskilled EMPSONNS	Skilled EMPLONSK	Unskilled EMPLONNS
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				

NOTE : See Appendix N for OCS employment assumptions.

WORKSHEET 16.   PROJECT EMPLOYMENT ASSUMPTIONS /
(Continued)

O F F S H O R E

	short-term		Long-term	
Year	Skilled	Unskilled	Skilled	Unskilled
	EMPSOFSK	EMPSOFNS	EMPLOFSK	EMPLOFNS
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				

SOURCE :   For OCS impact projections, assumptions are provided by
Alaska OCS office.   NOTE : The term "skilled" refers to
jobs requiring previous special oil-industry-related
training or experience.

APPENDIX M:

SANDPOINT RAM MODEL ASSUMPTIONS

The following worksheets provide most of the assumptions which we used to run the RAM model for Sand Point. The worksheets do not correspond exactly to those in Appendixes K and L. Those assumptions not included in this appendix may be found" in Appendix J (i. e., assumptions for birth rates, survival rates, etc.).

WORKSHEET 1. RESIDENT POPULATION ASSUMPTIONS
FOR YEAR PRIOR TO FIRST PROJECTION YEAR

Total Population (PO) _____625_____

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	10	13	15	199
5-14	16	12	39	83
15-19	17	14	20	28
20-34	74	55	60	38
23-64	33		50	42
65+	1	0	5	8

Note: Variable names for each column are
PONNM1, . . ., PONNM6; PONNF1 , . . ., PONNF6;
PONAM1, . . ., PONAM6 ; PONAF1 , . . ., PONAF6 .

SOURCE: U.S. Bureau of the Census.

WORKSHEET **6.** EMPLOYMENT **IN** YEAR **PRIOR** **TO** FIRST PROJECTION YEAR

(Full-time Equivalent Employment)

<u>Variable</u>	<u>Variable Name</u>	<u>Value</u>
Resident fishing employment	**EMFI**	107
Resident fish processing employment	**EMFP**	47
Other basic employment	**EMBANF**	11
Exogenous support employment	**EMSUEX**	11
Endogenous support employment	**EMSUEG**	35
Government-sponsored support employment	**EMSUGO**	21
Enclave-sponsored support employment	**EMSUEN**	1
Exogenous government employment	**EMGOEX**	2
Endogenous government employment	**EMGOEG**	14
Nonproject enclave employment	**EMEN**	54"

NOTE: **These** figures **are** not used directly as model **assumptions.** Instead, they **are** used as the **basis** for calculation **of** **model** assumptions in subsequent worksheets.

SOURCES: **U.S. Bureau** of the Census, **Alaska** Department of Labor and city **of** Sand Point. See discussion **in** footnotes to **Table F-4.**

WORKSHEET **7.** WAGE RATES AND INCOME IN YEAR
PRIOR TO FIRST PROJECTION YEAR

(Thousands of Real Dollars)

Variable	Variable Name	Value
Basic sector annual wage rate	WABA	17.6
Support sector annual wage rate	WASU	21.4
Government sector annual wage rate	WAGO	17.3
Total wage income	INWA	4,642
Nonwage income per capita	INNOWAPC	1.0
Total income	IN	4,643

- NOTE: These figures are not used directly as model assumptions.
Instead, they are used as the basis for calculation of
model assumptions in subsequent worksheets.

SOURCES: Wage rates are calculated on the basis of available data
from the Department of Labor, which is usually available
only at the census division level. Total wage income is
calculated by multiplying employment in each category (see
Worksheet 6) by the assumed wage rates. Nonwage income is
calculated as a proportion of total nonwage income for the
census district. Per capita nonwage income is obtained by
dividing nonwage income by population.

Community ___Sand **Point**___

WORKSHEET **9.** EMPLOYMENT MULTIPLIER ASSUMPTIONS

Employment multipliers are calculated from the data from
the year **prior to** the **first** projection **year, using** data
from **Worksheets 6, 7, and** 8.

Multiplier	Variable Name	Formula	Value
Endogenous support employment multiplier	EMSUEGC1	$\dfrac{EMSUEG}{IN}$	.0075
Endogenous government **employment** multiplier	EMGOEGC1	$\dfrac{EMGOEG}{PO * STPCOE}$	.0053
Government-sponsored support employment multiplier	EMSUGOC1	$\dfrac{EMSUGO}{PO * STPCCE}$	.0184
Nonproject enclave- generated support employment. multiplier	EMSUENC1	$\dfrac{EMSUEN}{EMEN}$	.05[a]
Project enclave-generated support employment multiplier	EMSUENC2		.05[a]

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[a]**Assumed** arbitrarily for Sand **Point,** this multiplier **is**
comparable **to** the nonresident petroleum-related multiplier **used in**
previous **SCIMP model** projections **(.0549). See** discussion in --
Goldsmith, et al. (1982, Appendix **C, p. C-15).**

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WORKSHEET 10. WAGE AND NONWAGE INCOME
ASSUMPTIONS FOR PROJECTION PERIOD
(Real Dollars)

	Per Capita Nonwage Income (INNOWAPC)	Basic Sector Wage Rate (WABA)	Support Sector Wage Rate (WASU)	Government Sector Wage Rate (WAGO)	Project Sector Wage Rate (WAPJ)
1980	1.0	17.628	21.432	17.280	0
1981	1.0	17.914	21.586	17.496	0
1982	1.0	18.206	21.742	17.714	0
1983	1.0	18.501	21.898	17.935	0
1984	1.0	18.802	22.056	18.159	$ 3
1985	1.0	19.108	22.215	18.386	0
1986	1.0	19.418	22.375	18.615	0
1987	1.0	19.734	22.536	18.847	0
1988	1.0	200054	22.698	19.083	0
1989	1.0	20.380	22.861	19.321	0
1990	1.0	20.711	23.026	19.562	0
1991	1.0	21.048	23.192	19.806	0
1992	1.0	21.390	23.359	20.053	0
1993	1.0	21.738	23.527	20.303	0
1994	1.0	22.091	23.696	20.557	0
1995	1.0	22.450	23.867	20.813	0
1996	1.0	22.815	24.039	21.073	0
1997	1.0	23.185	24.212	210'336	0
1998	1.0	23.562	24.386	21.602	0
1999	1.0	23.945	24.562	21.872	0
2000	1.0	24.334	24.739	22.145	c1
2001	1.0	24.729	24.917	22.421	0
2002	1.0	25.131	25.096	22.701	0
2003	1.0	25.540	25.277	22.984	0
2004	1.0	25.955	25.459	23.271	0
2005	1.0	26.376	25.642	23.562	0
2006	1.0	26.805	25.827	23.856	0
2007	1.0	27.241	26.013	24.153	0
2008	1.0	27.683	26.200	24.455	0
2009	1.0	28.133	26.389	24.760	0
2010	1.0	28.590	26.579	25.069	0

SOURCES: Wage rate assumptions are assumed, starting from 1980 wage rates (see Worksheet 7), and changing to reflect any assumed changes in the structure of employment within sectors, or in statewide Alaskan wage levels. Per capita nonwage income is assumed in a similar manner. Basic, support, and Government sector real wages assumed to increase at 1.625 percent, .72 percent, and 1.248 percent per year, respectively, based on ISER MAP Model projections done in February 1983 (DSET A83T2). Nonwage income was assumed to remain constant in real per capita terms.

WORKSHEET 11.   **BASIC** SECTOR EXOGENOUS EMPLOYMENT ASSUMPTIONS
(Full-time Equivalent Employment)

Year	Resident. **Fishing** Employment (EMFI)	Resident Fish-processing Employment (EMFP)	Other **Res-ident** Basic Employment (EMBANF)	**Nonproject** Enclave Employment (EMENNOPJ)
1980	107	47	11	54
1981	107	48	11	55
1982	107	48	11	55
1983	107	49	11	56
1984	107	50	11	56
1985	107	51	11	57
1986	107	51	11	57
1987	107	52	11	58
1988	107	53	11	58
1989	107	54	11	59
1990	107	55	11	60
1991	107	55	11	60
1992	107	56	11	61
1993	107	57	11	61
19!34	107	58	11	62
1995	107	59	11	63
1996	107	60	11	63
1997	107	61	11	64
1998	107	61	11	65
1999	107	62	11	65
2000	107	63	11	66
2001	107	64	11	67
2002	107	65	11	67
2003	107	66	11	68
2004	107	67	11	69
2005	107	68	11	69
2006	107	69	11	70
2007	107	70	11	71
2008	107	71	11	71
2009	107	72	11	72
2010	107	73	11	73

SOURCES: Exogenous employment in basic industries must be projected
on the basis of assumptions about factors **such** as **resource**
availability, resource prices, development of special
projects, state subsidies, transportation development, and
so forth.   We assumed resident fishing employment and
other resident basic employment remain constant.   Resident
fish processing employment was assumed to grow **1.5%** per
annum; **nonproject** enclave employment was assumed to grow
at **1.0%** per annum.

WORKSHEET 12. SUPPORT AND GOVERNMENT SECTOR EXOGENOUS EMPLOYMENT ASSUMPTIONS

Year	Exogenous Support Employment (EMSUEX)	Exogenous Government Employment
1980	11	2
1981	11	2
1982	11	2
1983	11	2
1984	11	2
1985	11	2
1986	11	2
1987	11	2
1988	11	2
1989	11	2
1990	11	2
1991	11	2
1992	11	2
1993	11	2
1994	11	2
1995	11	2
1996	11	2
1997	11	2
1998	11	2
1999	11	2
2000	11	2
2001	11	2
2002	11	2
2003	11	2
2004	11	2
2005	11	2
2006	11	2
2007	11	2
2008	11	2
2009	11	2
2010	11	2

SOURCES: We assumed exogenous support and government employment will remain constant. These assumptions are based on an analysis of support and government employment likely-to take place in activities which are not geared towards serving the local community, such as export terminals, or National Park Service operations.

WORKSHEET 13.   LABOR FORCE **PARTICIPATION** RATE ASSUMPTIONS

Age Group	Non-Native		Native	
	Male	Female	Male	Female
15-19	0	0	0	0
20-34	.96	.88	.55	.21
35-64	.96	.88	.55	.21
65+	0	0	0	0

Note: Variable names are **LFPRNNM3**, . . ., 6; **LFPRNNF3**, . . 6;
LFPRNAM3, . . ., 6; **LFPRNAF3**, . . ., 6.

SOURCE: Labor force participation rates were assumed to be zero for
age groups 15-19 and 65+. This greatly simplified the
calculation of these rates. See Table F-8 and discussion
in text for calculations.

WORKSHEET 14. ENDOGENOUS OUT-MIGRATION
PARAMETERS ASSUMPTIONS

Variable	Variable Name	Value
Threshold maximum level of unemployment before out-migration begins	HIUNRA	.05
Threshold minimum level of unemployment before in-migration begins	LWUNRA	-.05
Share of Native workers who leave once unemployment rises above threshold level	OULAPANA	.1
Share of non-Native workers who leave once unemployment rises above threshold level	OULAPANN	.7
Adjustment parameter for ratio of Native dependents who out-migrate to Native workers who out-migrate (a value of one indicates that this ratio is the same as the ratio of Native dependents to Native workers in the population)	OUDEPANA	1
Adjustment parameter for ratio of non-Native dependents who out-migrate to non-Native workers who out-migrate	OUDEPANN	1

SOURCE: Assumed values based on our best judgment.

WORKSHEET 15. **ENDOGENOUS** IMMIGRATION PARAMETERS ASSUMPTIONS:
/ **NUMBER OF** PERSONS **WHO** IMMIGRATE **IN** EACH COHORT
FOR EACH WORKER WHO IMMIGRATES

Age Group	Non-Native		Native	
	Male	Female	Male	Female
0-4	.05	**.05**	0	AL
5-14	.05	**.05**	0	0
15-19	**.05**	.05	0	0
20-34	**.41**	.29	**0**	0
35-64	.29	.21	0	0
65+	**0**	0	0	0

NOTE : **Variables are MGPANNM1,** . . ., **MGPANNM6; MGPANNF1,** . .,
MGPANNF6; MGPANAM1, . . ., **MGPANAM6; MGPANAFI,** . . .,
MGPANNF6.

SOURCE: **Values are** assumed **on** the **basis of** assumptions about **the**
age-sex-race breakdown of workers, the **number** of
dependents **per** worker, and the age-sex-race breakdown of
dependents. Specific assumptions **are:**

1. All immigrants are **non-Natives.**

2. **Sixty** percent of immigrant workers are **male.**

3. Each immigrant worker brings .5 dependents.

4. Dependents are **evenly** distributed among males and **females in**
the **first** three **age** groups.

WORKSHEET 16. EXOGENOUS MIGRATION PARAMETER ASSUMPTIONS:
SHARE OF EACH COHORT WHICH MIGRATES IN OR OUT EACH
YEAR IN RESPONSE TO NON-ECONOMIC (EXOGENOUS) FACTORS

Age Group	Non-Native Male	Non-Native Female	Native Male	Native Female
0-4	0	0	0	0
5-14	0	0	0	0
15-19	0	0	0	0
20-34	0	0	0	0
35-64	0	0	0	0
65+	-.1	-.1	-.1	-.1

Note : Variables are MXRANNM1, . . ., MXRANNM6; MXRANNF1, . . .,
MXRANNF6; MXRANAM1, . . ., MXRANAM6; MXRANAF1, . . .,
MXRANAF6.

SOURCE: Very little data is available on which to base these
assumptions. They are based on our best judgment.

WORKSHEET 17.   MILITARY ENCLAVE ASSUMPTIONS

	Enclave Military Employment EMML	Enclave Military Dependents DEML
1980	0	0
1981	0	0
1982	0	0
1983	0	0
1984	0	0
1985	0	0
1986	0	0
1987	0	0
1988	0	0
1989	0	0
1990	0	0
1991	0	0
1992	0	0
1993	0	0
1994	0	0
1995	0	0
1996	0	0
1997	0	0
1998	0	0
1999	0	0
2000	0	0
2001	0	0
2002	0	0
2003	0	0
2004	0	0
2005	0	0
2006	0	0
2007	0	0
2008	0	0
2009	0	0
2010	0	0

-SOURCE: Military population is assumed to remain zero over the
projection period.

WORKSHEET 18.   PROJECT EMPLOYMENT ASSUMPTIONS

O N S H O R E

Year	short-term		Long-term	
	Skilled	Unskilled	Skilled	Unskilled
	EMPSONSK	EMPSONNS	EMPLONSK	EMPLONNS
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005,				
2006				
2007				
2008				
2009				
2010				

NOTE : No OCS-related employment was assumed for Sand Point. '-

WORKSHEET 18.   PROJECT **EMPLOYMENT** ASSUMPTIONS
(Continued)

O F F S H O R E

-Year	Short-term		Long-term	
	Skilled EMPSOFSK	Unskilled EMPSOFNS	Skilled EMPLOFSK	Unskilled EMPLOFNS
1980				
1981				
1982				
1983				
1984				
1985				
1986				
1987				
1988				
1989				
1990				
1991				
1992				
1993				
1994				
1995				
1996				
1997				
1998				
1999				
2000				
2001				
2002				
2003				
2004				
2005				
2006				
2007				
2008				
2009				
2010				

SOURCE: For **OCS** impact projections, assumptions are provided by **Alaska OCS** office.   **NOTE:** The term **"skilled"** refers **to jobs** requiring previous special oil-industry-related training or experience.

WORKSHEET 19. PROJECT EMPLOYMENT PARAMETERS

	Share of Project Jobs Reserved for Non-residents by Industry	Share of Nonresident Workers Brought in to Fill ex- cess Demand who Became Residents	Share of Nonresident Workers Who Only Commute Thru Community (ie Do Not Live in Enclaves; Mostly Off- shore Workers)
Onshore Short-term Skilled	SNPSONSK	SRPSONSK	CPPSONSK
Onshore Short-term Unskilled	SNPSONNS	SRPSONNS	CPPSONNS
Onshore Long-term Skilled	SNPLONSK	SRPLONSK	CPPLONSK
Onshore Long-term Unskilled	SNPLONNS	SRPLONNS	CPPLONNS
Offshore Short-term Skilled	SNPSOFSK	SRPSOFSK	CPPSOFSK
Offshore short-term Unskilled	SNPSOFNS	SRPSOFNS	CPPSOFNS
Offshore Long-term Skilled	SNPLOFSK	SRPLOFSK	CPPLOFSK
Offshore Long-term Unskilled	SNPLOFNS	SRPLOFNS	CPPLOFNS

SOURCE: Assumed.

WORKSHEET 20. SKILLED WORKERS AND TRAINING PARAMETERS

Variable	Variable Name	Value
Number of skilled workers in year prior to first projection year	LSSK	_____
Maximum share of nonskilled workers who are trained for project jobs in any given year	" TNPANS	_____
Maximum share of excess demand for skilled labor which is filled by training local labor in any given year	TNPAED	_____

Our RAM model OCS impact projections are based on **annual OCS** employment figures provided **to us** by **the** Minerals Management Service **Alaska OCS** office. This employment is **broken** down into eight categories:

Employment Category	RAM Model Variable Name
Onshore short-term skilled **employment** "	**EMPSONSK**
Onshore short-term nonskilled employment	**EMPSONNS**
(Inshore long-term skilled employment	**EMPLONSK**
Onshore long-term nonskilled employment	**EMPLONNS**
Offshore short-term skilled employment	**EMPSOFSK**
Offshore short-term nonskilled employment	**EMPSOFNS**
Offshore long-term **skilled** employment	**EMPLOFSK**
Offshore long-term nonskilled employment	**EMPLOFNS**

Onshore employment is employment located onshore **in the vicinity** of **the** community for **which** the projections are being prepared. Offshore employment is employment which **is** located either offshore **or** onshore at some distance away from the community for which the projections are being prepared, **but** which passes through **the** -- community (usually by helicopter **or plane) enroute** to **or** returning from the **worksite.** Generally, offshore employment **of nonresidents** **would** have only a minimal impact **upon** a community.

Short-term employment **is** work which lasts for **only a** few years at **most,** generally associated with the exploration or construction **phase** of an OCS **project.** Long-term **employment** is work which **lasts**

for a number of years, generally associated with the production phase of an OCS project.

Skilled employment is employment which requires previous experience in similar-type jobs or special training. Nonskilled employment is work which requires relatively little previous training or experience.

The Minerals Management Service Alaska OCS office calculates these employment assumptions based on a large number of assumptions about the kind of OCS development which will take place. The most important of these assumptions is the level of resources which will be discovered and developed. Next, assumptions are made about what activities will be associated with this development, such as the number of platforms which will be constructed, the number of oil wells drilled, the kinds of onshore bases which will be established, and the number of helicopters, planes, and ships which will be used in-transporting personnel and supplies. Next, assumptions are made about the level of employment associated with each of these activities. Finally, assumptions are made about the breakdown of employment into onshore and offshore, short-term and-long-term, and - skilled and nonskilled categories. Obviously, many -of these assumptions are subject to considerable uncertainty, and, 'therefore, the resulting employment assumptions and the impact projections which we base on them are also uncertain. Readers should keep these various sources of uncertainty in mind in interpreting our impact projections.

In the past, we have been questioned as to the basis for our breakdown of employment into skilled and nonskilled categories. This breakdown is, to a large extent, arbitrary since there are many jobs which require some skills but not extensive training, and it is not clear how they should be classified. However, some kind of' breakdown of employment by skill requirement is essential in order to project how many jobs might be filled locally.

Our OCS employment assumptions *are shown* in Tables N-1--N-12, as - follows:

Tables   Cases

N-1, N-2   Unalaska Sale 89 Base Case and Sale 89 Impact Case
N-3, N-4   Unalaska Sale 92 Base Case and Sale 92 Impact Case
N-5, N-6   Unalaska Sale 89 Base Case and Sales 89 and 92
              Combined Impact Case
N-7, N-8   Cold Bay Sale 89 Base Case-and Sale 89 Impact Case
N-9, N-10   Cold Bay Sale 92 Base Case and Sale 92 Impact Case
N-11, N-12   Cold Bay Sale 89 Base Case and Sales 89 and 92
              Combined Impact Case

In past studies, our base cases have usually not included any OCS employment. However, for this study, the Alaska OCS office has - instructed us to assume that oil resources 'in the Navarin Basin will . - be- developed irrespective of whether development occurs in -the 'Sale 89 or Sale 92 lease areas. In addition, we are to assume a , small amount of exploration-related employment for Sale 70 in-the- - . St. George Basin. We have included this OCS employment, as provided - - to us by the Alaska OCS office, in our base case employment assumptions. In addition, for the Sale 92 base case, we have

included a small amount of exploration-related employment for Sale 89. (Thus, the Sale 92 base case assumes exploration of the Sale 89 lease area, but no development).

The Alaska OCS office also provided us with OCS employment assumptions associated with development of the Sale 89 and Sale 92 lease areas. In order to calculate our total OCS employment assumptions for our impact cases, we added this employment to the OCS employment included in the base cases. For the Sale 89 impact case, we added the Sale 89 specific employment to the Sale 89 base case employment. For the Sale 92 impact case, we added the Sale 92 specific employment to the Sale 92 base case employment. Finally, for the Sale 89 and Sale 92 combined impact case, we added the specific employment associated with each of the sales to the Sale 89 base case employment.

OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALE 89 IMPACT CASE
ONSHORE EMPLOYMENT
UNALASKA

	SHORT - TERN						LONG - TERN					
	SKILLED			UNSKILLED			SKILLED			UNSKILLED		
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	33		33	107		107						
1985	55		55	7		7						
1986	47	1	48	7	22	29						
1987	35	1	36	157	6	163						
1988	12	3	15	32	8	40						
1989	3	2	5		7	7						
1990	6	9	15		18	18						
1991	10	6	16		14	14						
1992	10	22	32		34	34						
1993	8	20	28		64	64						
1994	6	7	13		10	10		1	1		15	15
1995	33	7	40	55	9	64		1	1		15	15
1996	66		66	110		110	18	2	20		16	16
1997	83		83	198		198	54	2	56		16	16
1998	39		39	145		145	99	2	101		16	16
1999	6		6	70		70	117	2	119	100	16	116
2000							117	2	119	100	16	116
2001							117	2	119	100	16	116
2002							117	2	119	100	16	116
2003							117	2	119	100	16	116
2004							117	2	119	100	16	116
2005							117	2	119	100	16	116
2006							117	2	119	100	16	116
2007							117	2	119	100	16	116
2008							117	2	119	100	16	116
2009							117	2	119	100	16	116
2010							117	2	119	100	16	116

SOURCE: Minerals Management, Service, Alaska OCS Office.

TABLE N.2.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALE 89 IMPACT CASE
OFFSHORE EMPLOYMENT
UNALASKA

	SHORT-TERM						LONG-TERM					
	SKILLED			UNSKILLED			SKILLED			UNSKILLED		
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	96		96									
1985	156		156									
1986	132	6	138									
1987	96	6	112									
1988	48	18	66									
1989	24	12	36									
1990	60	62	122									
1991	108	43	151									
1992	108	126	234									
1993	84	110	194									
1994	60	43	103									
1995	253	40	293					12	12			
1996	506		506				72	12	86			
1997	632		632				216	24	240			
1998	286		286				396	24	420			
1999	33		33				468	24	492			
2000							468	24	492			
2001							468	24	492			
2002							468	24	492			
2003							468	24	492			
2004							468	24	492			
2005							468	24	492			
2006							468	24	492			
2007							468	24	492			
2008							468	24	492			
2009							468	24	492			
2010							468	24	492			

SOURCE: Minerals Management Service, Alaska OCS Office.

TABLE N.3.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 92 BASE CASE AND OCS SALE 92 IMPACT CASE
ONSHORE EMPLOYMENT
UNALASKA

	SHORT-TERM						LONG-TERM					
	SKILLED			UNSKILLED			SKILLED			UNSKILLED		
	Base Case	Sale 92	Total	Base Case	Sale 92	Total	Base Case	Sale 92	Total	Base Case	Sale 92	Total
1980												
1981												
1982												
1983												
1984	33		33	107		107						
1985	55		55	7		7						
1986	53	3	56	57	51	108						
1987	41	3	44	157	7	164						
1988	18	7	25	32	7	39						
1989	9	5	14		7	7						
1990	12	28	40		23	23						
1991	10	20	30		18	18						
1992	10	45	55		29	29		5	5		25	25
1993	8	33	41		75	75		5	5		25	25
1994	6	11	17					12	12		25	25
1995	33	5	38	55		55		12	12		25	25
1996	66		66	110		110	18	13	31		25	25
1997	83		83	198		198	54	13	67		25	25
1998	39		39	145		145	99	13	112		25	25
1999	6		6	70		70	117	13	130	100	25	125
2000							117	13	130	100	25	125
2001							117	13	130	100	25	125
2002							117	13	130	100	25	125
2003							117	13	130	100	25	125
2004							117	13	130	100	25	125
2005							117	13	130	100	25	125
2006							117	13	130	100	25	125
2007							117	13	130	100	25	125
2008							117	13	130	100	25	125
2009							117	13	130	100	25	125
2010							117	13	130	100	25	125

SOURCE : Minerals Management Service, Alaska OCS Office.

TABLE N.4.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 92 BASE CASE AND OCS SALE 92 IMPACT CASE
OFFSHORE EMPLOYMENT
UNALASKA

| | S H O R T - T E R M | | | | | | L O N G - T E R M | | | | | |
| | SKILLED | | | UNSKILLED | | | SKILLED | | | UNSKILLED | | |
	Base Case	Sale 92	Total	Base Case	Sale 92	Total	Base Case	Sale 92	Total	Base Case	Sale 92	Total
1980												
1981												
1982												
1983												
1984	96		96									
1985	156		156									
1986	148	9	157									
1987	112	9	121									
1988	64	27	91									
1989	40	18	58									
1990	76	101	177									
1991	108	71	179									
1992	108	104	212						10	10		
1993	84	83	167						10	10		
1994	60		60						21	21		
1995	253		253						21	21		
1996	506		506				72	21	93			
1997	632		632				216	21	237			
1998	286		286				396	21	417			
1999	33		33				468	21	489			
2000							468	21	489			
2001							468	21	489			
2002							468	21	489			
2003							468	21	489			
2004							468	21	489			
2005							468	21	489			
2006							468	2a	489			
2007							468	21	489			
2008							468	21	489			
2009							468	21	489			
2010							468	21	489			

SOURCE: Minerals Management Service, Alaska OCS Office.

TABLE N.S.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALES 89 AND 92
COMBINED IMPACT CASE, ONSHORE EMPLOYMENT
UNALASKA

| | SHORT-TERM | | | | | | | | LONG-TERM | | | | | | | |
| | SKILLED | | | | UNSKILLED | | | | SKILLED | | | | UNSKILLED | | | |
	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total
1980																
1981																
1982																
1983																
1984	33			33	107			107								
1985	55			55	7			7								
1986	47	1	3	51	7	22	51	80								
1987	35	1	3	39	157	6	7	170								
1988	12	3	7	22	32	8	7	47								
1989	3	2	5	10		7	7	14								
1990	6	9	28	43		18	23	41								
1991	10	6	20	36		14	18	32								
1992	10	22	45	77		34	29	63			5	5			25	25
1993	8	20	33	61		64	75	139			5	5			25	25
1994	6	7	11	24		10		10		1	12	13		15	25	40
1995	33	7	5	45	55	9		64		1	12	13		15	25	40
1996	66			66	110			110	18	2	13	33		16	25	41
1997	83			83	198			198	54	2	13	69		16	25	41
1998	39			39	145			145	99	2	13	114		16	25	41
1999	6			6	70			70	117	2	13	132	100	16	25	141
2000									117	2	13	132	100	16	25	141
2001									117	2	13	132	100	16	25	141
2002									117	2	13	132	100	16	25	141
2003									117	2	13	132	100	16	25	141
2004									117	2	13	132	100	16	25	141
2005									117	2	13	132	100	16	25	141
2006									117	2	13	132	100	16	25	141
2007									117	2	13	132	100	16	25	141
2008									117	2	13	132	100	16	25	141
2009									117	2	13	132	100	16	25	141
2010									117	2	13	132	100	16	25	141

SOURCE: Minerals Management Service, Alaska OCS Office.

TABLE N.6.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALES 89 AND 92
COMBINED IMPACT CASE, OFFSHORE EMPLOYMENT
UNALASKA

| | SHORT-TERM | | | | | | | LONG-TERM | | | | | | | |
| | SKILLED | | | | UNSKILLED | | | SKILLED | | | | UNSKILLED | | | |
	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 8992	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Tota
1980															
1981															
1982															
1983															
1984	96	"		96											
1985	156			156											
1986	132	6	9	147											
1987	96	6	9	111											
1988	48	18	27	93											
1989	24	12	18	54											
1990	60	62	101	223											
1991	108	43	71	222											
1992	108	126	104	338						10	10				
1993	84	110	83	277						10	10				
1994	60	43		103						21	21				
1995	253	40		293					12	21	33				
1996	506			506				72	12	21	105				
1997	632			632				216	29	21	261				
1998	286			286				396	24	21	441				
1999	33			33				468	24	21	513				
2000								46$3	24	21	513				
2001								468	24	21	513				
2002								46%	24	21	513				
2003								468	-24	21	513				
2004								468	24	21	513				
2005								468	.24	21	513				
2006								468	24	21	513				
2007								468	24	21	513				
2008								468	24	21	513				
2009								46%	"24	21	513				
2010								468	"24	21	513				

SOURCE : Minerals Management Service, Alaska OCS_Office.

TABLE N.7.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALE 89 IMPACT CASE
ONSHORE EMPLOYMENT
COLD BAY

| | SHORT-TERM | | | | | | LONG-TERM | | | | | |
| | SKILLED | | | UNSKILLED | | | SKILLED | | | UNSKILLED | | |
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	47		47	50		50						
1985	76		76									
1986	64	4	68	50	21	71						
1987	93	4	97	25	4	29						
1988	50	11	61		4	4						
1989	10	7	17		4	4						
1990	10	23	33		4	4						
1991	10	16	26		4	4						
1992	10	52	62		4	4						
1993	10	46	56		38	38						
1994	10	25	35					6	6		12	12
1995	10	23	33					6	6		12	12
1996	10		10				5	12	17		12	12
1997	10		10	30		30	15	12	27		12	12
1998	10		10	40		40	27	12	44		12	12
1999	10		10	30		30	32	12	44		12	12
2000				30		30'	32	12	44		12	12
2001				30		30	32	12	44		12	12
2002				30		30	32	12	44		12	12
2003				30		30	32	12	44		12	12
2004				30		30	32	12	44		12	12
2005				30		30	32	12	44		12	12
2006				30		30	32	12	44		12	12
2007				30		30	32	12	44		12	12
2008				30		30	32	12	44		12	12
2009				30		30	32	12	44		12	12
2010				30		30	32	12	44		12	12

SOURCE: Minerals Management Service, Alaska OCS Office.

OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALE 89 IMPACT CASE
OFFSHORE EMPLOYMENT
COLD BAY

	SHORT - TERM						LONG - TERM					
	SKILLED			UNSKILLED			SKILLED			UNSKILLED		
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	418		418									
1985	684		684									
1986	582	32	614									
1987	4'30	32	462									
1988	110	78	188									
1989		55	55									
1990		260	260									
1991		185	185									
1992		487	487									
1993		525	525		400	400						
1994		135	135					134	134		9	9
1995		124	124					134	134		9	9
1996								215	215		18	18
1997	90		90	360		360		220	220		18	18
1998	180		180	720		720		220	220		18	18
1999	90		90	360		360	111	225	336		18	18
2000							116	230	346		18	18
2001							123	230	353		18	18
2002							126	235	361		18	18
2003							126	235	361		18	18
2004							126	235	361		18	18
2005							126	235	361		18	18
2006							126	235	361		18	18
2007							126	235	361		18	18
2008							126	235	361		18	18
2009							126	235	361		18	18
2010							126	235	361		18	18

SOURCE: Minerals Management Service, Alaska OCS Office.

TABLE N.9.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 92 BASE CASE AND OCS 'SALE 92 IMPACT CASE
ONSHORE EMPLOYMENT
COLD BAY

| | SHORT-TERM | | | | | | LONG-TERM | | | | | |
| | SKILLED | | | UNSKILLED | | | SKILLED | | | UNSKILLED | | |
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	47		47	50		50						
1985	76		76									
1986	70	3	73	67	48	115						
1987	99	3	102	25	3	28						
1988	56	10	66		3	3						
1989	16	6	22		3	3						
1990	16	23	39		3	3						
1991	10	16	26		3	3						
1992	10	27	37		3	3						
1993	10	20	30		53	53		3	3			
1994	10	6	16					6	6		12	12
1995	10	3	13					6	6		12	12
1996	10		10				5	7	12		12	12
1997	10		10	30		30	15	7	22		12	12
1998	10		10	40		40	27	7	34		12	12
1999	10		10	30		30	32	7	39		12	12
2000							32	7	39		12	12
2001							32	7	39		12	12
2002							32	7	39		12	12
2003							32	7	39		12	12
2004							32	7	39		12	12
2005							32	7	39		12	12
2006							32	7	39		12	12
2007							32	7	39		12	12
2008							32	7	39		12	12
2009							32	7	39		12	12
2010							32	7	39		12	12

SOURCE: Minerals Management Service, Alaska OCS Office.

TABLE N.10.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 92 BASE CASE AND OCS SALE 92 IMPACT CASE
OFFSHORE EMPLOYMENT
COLD BAY

	SHORT-TERM						LONG-TERM					
	SKILLED			UNSKILLED			SKILLED			UNSKILLED		
	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total	Base Case	Sale 89	Total
1980												
1981												
1982												
1983												
1984	418		418									
1985	684		684									
1986	613	32	645									
1987	461	32	493									
1988	141	79	220									
1989	31	55	86									
1990	31	365	396									
1991		260	260									
1992		534	534									
1993		450	450		203	203						
1994		125	125					145	145		9	9
1995		52	52					145	145		9	9
1996								226	226		18	18
1997	90		90	360		360		231	231		18	18
1998	180		180	720		720		231	231		18	18
1999	90		90	360		360	111	235	346		18	18
2000							116	240	356		18	18
2001							123	240	363		18	18
2002							126	245	371		18	18
2003							126	245	371		18	18
2004							126	245	371		18	18
2005							126	245	371		18	18
2006							126	245	371		18	18
2007							126	245	371		18	18
2008							126	245	371		18	18
2009							126	245	371		18	18
2010							126	245	371		18	18

SOURCE : Minerals Management Service, Alaska OCS Office.

TABLE N.11.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALES 89 AND 92
COMBINED IMPACT CASE, ONSNORE EMPLOYMENT
COLD BAY

| | SHORT-TERM | | | | | | | | LONG-TERM | | | | | | | |
| | SKILLED | | | | UNSKILLED | | | | SKILLED | | | | UNSKILLED | | | |
	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total
1980																
1981																
1982																
1983																
1984	47			47	50			50								
1985	76			76												
1986	64	4	3	71	50	21	48	119								
1987	93	4	3	100	25	4	3	32								
1988	50	11	10	71		4	3	7								
1989	10	7	6	23		4	3	7								
1990	10	23	23	56		4	3	7								
1991	10	16	16	42		4	3	7								
1992	10	52	27	89		4	3	7			3	3				
1993	10	46	20	76		38	53	91			3	3				
1994	10	25	6	41						6	6	12		12	12	24
1995	10	23	3	36						6	6	12		12	12	24
1996	10			10					5	12	7	24		12	12	24
1997	10			10	30			30	15	12	7	34		12	12	24
1998	10			10	40			40	27	12	7	46		12	12	24
1999	10			10	30			30	32	12	7	51		12	12	24
2000	10			10	30			30	32	12	7	51		12	12	24
2001	10			10	30			30	32	12	7	51		12	12	24
2002	10			10	30			30	32	12	7	51		12	12	24
2003	10			10	30			30	32	12	7	51		12	12	24
2004	10			10	30			30	32	12	7	51		12	12	24
2005	10			10	30			30	32	12	7	51		12	12	24
2006	10			10	30			30	32	12	7	51		12	12	24
2007	10			10	30			30	32	12	7	51		12	12	24
2008	10			10	30			30	32	12	7	51		12	12	24
2009	m			10	30			30	32	12	7	51		12	12	24
2010	10			10	30			30	32	12	7	51		12	12	24

TABLE N.12.
OCS EMPLOYMENT ASSUMPTIONS,
OCS SALE 89 BASE CASE AND OCS SALES 89 AND 92
COMBINED INPACT CASE, OFFSHORE EMPLOYMENT
COLD BAY

| | SHORT-TERM | | | | | | | | LONG-TERM | | | | | | | |
| | SKILLED | | | | UNSKILLED | | | | SKILLED | | | | UNSKILLED | | | |
	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total	Base Case	Sale 89	Sale 92	Total
1980																
1981																
1982																
1983																
1984	418			418												
1985	684			684												
1986	582	32	32	646												
1987	430	32	32	494												
1988	110	78	79	267												
1989		55	55	110												
1990		260	365	625												
1991		185	260	44s												
1992		487	534	1021												
1993		525	450	975	400	203		603								
1994		135	125	260						134	145	279		9	9	18
1995		124	52	176						134	145	279		9	9	18
1996										215	226	441		18	18	36
1997	90			90	360			360		220	231	451		18	18	36
1998	180			180	720			720		220	231	451		18	18	36
1999	90			90	360			360	111	225	235	460		18	18	36
2000									116	230	240	470		18	18	36
2001									123	230	240	470		18	18	36
2002									126	235	245	480		18	18	36
2003									126	235	245	480		18	18	36
2004									126	235	245	480		18	18	36
2005									126	235	245	480		18	18	36
2006									126	23S	245	480		18	18	36
2007									126	235	245	480		18	18	36
2008									126	235	245	480		18	18	36
2009									126	235	245	480		18	18	36
2010									126	235	245	480		18	18	36

TABLE O-1
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESILIENT POFWLATION	NoN-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	−0	0	1296
1982	665	233	0	0	898
1983	652	166	0	0	818
1984	791	186	119	0	1097
1985	756	262	60	0	1079
1986	788	337	52	0	1177
1987	901	412	164	0	1477
1988	888	488	37	0	1413
1989	910	593	3	0	1506
1 990	974	699	6	0	1679
1 991	1089	854	10	0	1953
1992	1139	1009	10	0	2158
1993	1223	1165	8	0	2396
1994	1313	1320	6	0	2639
1995	1427	1476	79	0	2982
1996	1579	1576	159	0	3314
1997	1808	1676	253	0	3737
1998	1985	1776	163	0	3924
1999	2275	1776	66	0	4117
2000	2235	1776	0	0	4011
2001	2233	1776	0	0	4009
2002	2229	1776	0	0	4005
2003	2227	1776	0	0	4003
2004	2226	1776	0	0	4002
2005	2224	1776	0	0	4000
2006	2223	1776	0	0	3999
2007	2222	1776	0	0	3998
2008	2221	1776	0	0	3997
2009	2221	1776	0	0	3997
2010	2220	1776	0	0	3996

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET UN.89MBC--CREATED 11/30/83

TABLE 0-2
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESIDENT POPU- LATION	NATIVE POPU- LATION	NON- NATIVE POPU- LATION	NATIVE MALE POPU- LATION	NATI'VE FEMALE POPU- LATION	NON- NATIVE MALE POPU- LATION	NON- NATIVE FEMALE POPU- LATION			
1981	687	206	481	123	83	304	177			
1982	665	212	454	125	87	286	167	"		
1983	652	217	435	127	90	274	160			
1984	791	223	569	130	93	359	209			
19&i5	756	228	528	132	96	334	195			
1986	788	234	555	134	99	350	204			
1987	901	239	662	136	103	418	244			
1988	888	244	644	138	106	407	237			
1989	910	250	660	141	109	417	243			
1 990	974	255	719	143	112	454	265			
1991	108!3	260	829	145	115	524	306			
1992	1139	265	873	147	119	551	322			
1993	1223	271	952	149	122	601	351			
1994	1313	276	1037	151	125	655	382			
1995	1427	281	1146	153	128	724	4	2	2	
1996	1579	287	1292	155	132	816	476			
1997	1808	292	1516	157	135	957	558			
1998	1985	298	1687	160	139	1065	622			
1999	2275	304	1971	162	142	1245	726			
2000	2235	310	1926	164	146	1216	710			
2001	2233	316	1917	166	149	1211	706			
2002	2229	322	1907	169	153	1205	-?03			
2003	2227	328	1899	171	157	1199	700			
2004	2226	334	1891	174	161	1194	697			
2005	2224	341	1883	176	165	1189	694			
2006	2223	347	1876	179	169	1184	-691			
2007	2222	354	1868	182	173	1179	-688			
2008	2221	361	1 860	184	177	1175	685			
2009	2221	368	1853	187	181	1170	683			
2010	2220	376	1845	190	185	1165	680			

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET UN.89MBC--CREATED 11/30/83

TABLE O-3
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	52	155	431	15
1984	791	63	186	525	17
1985	756	62	177	499	18
1986	788	66	184	518	20
1987	901	74	211	594	22
1988	888	74	208	583	23
1989	910	76	214	595	25
1990	974	81	230	637	27
1991	1089	89	257	714	29
1992	1139	92	269	746	31
1993	1223	98	290	$02	33
1994	1313	104	311	862	36
1995	1427	112	338	939	38
1996	157'3	122	374	1042	41
1997	1808	137	427	1199	45"
1998	1985	149	468 "	1319	48
1 999	2275	169	535	1518	53
2000	2235	166	527	1489	54
2001	2233	166	527	1485	55
2002	2229	166	527	1480	56
2003	2227	167	527	1477	57
2004	2226	167	527	1474	58
2005	2224	167	528	1470	59
2006	2223	168	528	1467	60
2007	2222	168	528	1464	61
2008	2221	169	529	1462	62
2009	2221	169	529	1459	63
2010	2220	170	530	1457	64

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.89MBC--CREATED 11/30/83

TABLE CI-4
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	756	-35	7	-41
1986	788	32	6	25
1987	901	112	6	106
1988	888	-12	7	-19
1989	910	22	7	15
1990	974	64	7	57
1991	1089	115	7	109
1992	1139	49	7	42
1993	1223	85	7	78
1994	1313	90	7	83
1995	1427	114	7	107
1996	1579	152	8	144
1997	1808	229	8	221
1998	1985	177	9	169
1999	2275	290	9	281
2000	2235	-40	10	-49
2001	2233	-3	10	-12
2002	2229	-4	10	-13
2003	2227	-2	10	-12
2004	2226	-1	10	-11
2005	2224	-1	10	-11
2006	2223	-1	10	-11
2007	2222	-1	10	-11
2008	2221	-1	11	-11
2009	2221	-0	11	-11
2010	2220	-0	11	-11

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.89MBC--CREATED 11/30/83

TABLE O-5
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-0	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	426	186	119	0	731
1985	401	262	60	0	724
1986	419	337	52	0	808
1987	486	412	164	0	1062
1988	476	488	37	0	1000
1989	487	593	3	0	1083
1990	524	699	6	0	1229
1991	593	854	10	0	1457
1992	621	1009	10	0	1640
1993	671	1165	8	0	1844
1994	724	1320	6	o	2050
1995	793	1476	79	0	2347
1996	885	1576	159	0	2619
1997	1025	1676	253	0	2954
1998	1133	1776	163	0	3071
1999	1311	1776	66	o	3153
2000	1284	1776	0	0	3060
2001	1279	1776	0	0	3055
2002	1274	1776	0	0	3050
2003	1270	1776	0	0	3046
2004	1266	1776	0	0	3042
2005	1262	1776	0	0	3038
2006	1259	1776	0	0	3035
2007	1255	1776	0	0	3031
2008	1252	1776	0	0	3028
2009	1248	1776	0	0	3024
2010	1245	1776	0	0	3021

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET UN.89MBC--CREATED 11/30/83

TABLE 0-6
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	401	122	158	120	2
1986	419	128	165	124	2
1987	486	134	192	133	28
1988	476	140	184	144	7
1989	487	155	190	142	0
1990	524	170	203	151	0
1991	593	200	225	168	0
1992	621	230	239	152	0
1993	671	260	258	153	0
1994	724	290	277	158	0
1995	793	320	304	160	9
1996	885	350	335	164	35
1997	1025	380	379	183	82
1998	1133	410	407	195	120
1999	1311	410	451	222	227
2000	1284	410	441	215	217
2001	1279	410	440	212	217
2002	1274	410	439	208	217
2003	1270	410	439	204	217
2004	1266	410	438	201	217
2005	1262	410	437	198	217
2006	1259	410	436	195	217
2007	1255	410	436	192	217
2008	1252	410	435	190	217
2009	1248	410	434	187	217
2010	1245	410	434	184	217

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.89MBC--CREATED 11/30/83

TABLE O-7
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58 "	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74"	2
1988	140	60	78	2
1989	155	65	" 88	2
1990	170	70	98	2
1991	200	80	118	2
1992	230	90	138	2
1993	260	100	158	2
1994	290	110	178	2
1995	320	120	198	2
1996	350	130	218	2
1997	380	140	238 "	2
1998	410	150	258	2
19!39	410	150	258	2
2000	410	150	258	2
2001	410	150	258 "	2
2002	410	150	258	2
2003	410	150	258	2
2004	410	150	258	2
2005	410	150	258	2
2006	410	150	258	2
2007	410	150	258	2
2008	410	150	258	2
2009	410	150	258	2
2010	410	150	258	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.89MBC--CREATED 11/30/83

TABLE O-8
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	158	82	0	59	17
1986	165	85	0	59	21
1987	192	103	0	59	30
1988	184	98	0	59	28
1989	190	99	0	59	32
1990	203	106	0	59	37
1991	225	120	0	59	46
1992	239	126	0	59	54
1993	258	136	0	59	62
1994	277	147	0	59	71
1995	304	162	0	59	82
1996	335	184	0	59	92
1997	379	219	0	59	102
1998	407	245	0	59	103
1999	451	295	0	59	98
2000	441	288	0	59	94
2001	440	287	0	59	94
2002	439	286	0	59	94
2003	439	285	0	59	94
2004	438	284	0	59	94
2005	437	284	0	59	94
2006	436	283	0	59	-94
2007	436	282	0	59	-94"
2008	435	282	0	59	94
2009	434	281	0	59	94
2010	434	280	0	59	94

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET UN.89MBC—CREATED 11/30/83

TABLE O-9
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	125	119	6
1985	120	114	6
1986	124	118	6
1987	133	127	6
1988	144	138	6
1989	142	136	6
1990	151	145	6
1991	168	162	6
1992	152	146	6
1993	153	147	6
1994	158	152	6
1995	160	154	6
1996	164	158	6
1997	183	177	6
1998	195	189	6
1999	222	216	6
2000	215	209	6
2001	212	206	6
2002	208	202	6
2003	204	198	6
2004	201	195	6
2005	198	192	6
2006	195	189	6
2007	192	186	6
2008	190	184	6
2009	187	181	6
2010	184	178	6

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET UN.89MBC--CREATED 11/30/83

TABLE O-10
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140
1985	55	7	0	0	62
1986	47	7	0	0	54
1987	35	157	0	0	192
1988	12	32	0	0	44
1989	3	0	0	0	3
1990	6	0	0	0	6
1991	10	0	0	0	10
1992	10	0	0	0	10
1993	8	0	0	0	8.
1994	6	0	0	0	6
1995	33	55	13	0	88
1996	66	110	18	0	194
1997	83	198	54	0	335
1998	39	145	99	0	283
1999	6	70	117	100	293
2000	0	0	117	100	217
2001	0	0	117	100	217
2002	0	0	117	100	217
2003	0	0	117	100	217
2004	0	0	117	100	217
2005	0	0	117	100	217
2006	0	0	117	100	217
2007	0	0	117	100	~11~
2008	0	0	117	100	217
2009	0	0	117	100	217
2010	0	0	117	100	217

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.89MBC--CREATED 11/30/83

TABLE O-11
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	c1
1983	0	0	0	0	0
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	132	0	0	0	132
1987	96	0	0	0	96
1988	48	0	0	0	48
1989	24	0	0	0	24
1990	60	0	0	0	60
1991	108	0	0	0	108
1992	108	0	0	0	108
1993	84	0	0	0	84
1994	60	0	0	"0	60
1995	253	0	0	0	253-
1996	506	0	72	0	5 7 8
1997	632	0	216	0	848
1998	286	0	396	0	682
1999	33	0	468	0	501
2000	0	0	468	0	468
2001	0	0	468	0	468
2002	0	0	468	0	468
2003	0	0	468	0	468
2004	0	0	468	0	468
2005	0	0	468	0	468
2006	0	0	468	0	468
2007	0	0	468	0	468
2008	0	0	468	0	468
2009	0	0	468	0	468
2010	0	0	468	0	468

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF "---"
DSET UN.89MBC--CREATED 11/30/83

TABLE O-12
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-0	0	0
1982	0	0	0.	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	2	52	132	186
1987	28	164	96	288
1988	7	37	48	92
1989	0	3	24	27
1990	0	6	60	66
1991	0	10	108	118
1992	0	10	108	118
1993	0	8	84	92
1994	0	6	60	66
1995	9	79	253	341
1996	35	159	578	772
1997	82	253	848	1183
1998	120	163	682	965
1999	227	66	501	794
2000	217	0	468	685
2001	217	0	468	685
2002	217	0	468	685
2003	217	0	468	685
2004	217	0	468	685
2005	217	0	468	685
2006	217	0	468	685
2007	217	0	468	685
2008	217	0	468	685
2009	217	0	468	685
2010	217	0	468	685

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET UN.89MBC--CREATED 11/30/83

TABLE 0-13
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 MEDIUM BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	236	21	129	107	0	21
1985	218	2	211	7	0	2
1986	186	2	179	7	0	2
1987	288	28	131	157	0	28
1988	92	7	60	32	0	7
1989	27	0	27	0	0	0
1990	66	0	66	0	0	0
1991	118	0	118	0	0	0
1992	118	0	118	0	0	0
1993	92	0	92	0	0	0
1994	66	0	66	0	0	0
1995	341	9	286	55	0	9
1996	772	35	662	110	18	17
1997	1183	82	985	198	54	28
1998	965	120	820	145	99	21
1999	794	227	624	170	117	110
2000	685	217	585	100	117	100
2001	685	217	585	100	117	100
2002	685	217	585	100	117	100
2003	685	217	585	100	117	100
2004	685	217	585	100	117	100
2005	685	217	585	100	117	100
2006	685	217	585	100	117	100
2007	685	217	585	100	117	100
2008	685	217	585	100	117	100
2009	685	217	585	100	117	100
2010	685	217	585	100	117	100

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
OSET UN.89MBC--CREATED 11/30/83

TABLE O-14
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	-0	0	1296
1982	665	233	0	0	898
1983	652	166	0	0	818
1984	707	186	0	0	893
1985	732	206	0	0	938
1986	758	226	0	0	984
1987	764	246	0	0	1010
1988	822	266	0	0	1088
1989	844	342	0	0	1186
1990	878	417	0	0	1295
1991	912	492	0	0	1404
1992	888	512	0	0	1400
1993	894	532	0	0	1426
1994	907	552	0	0	1459
1995	913	572	0	0	1485
1996	911	582?	0	0	1493
1997	912	582	0	0	1494
1998	911	582	0	0	1493
1999	915	582	0	0	1497
2000	918	582	0	0	1500
2001	920	582	0	0	1502
2002	921	582	0	0	1 so3-
2003	924	582	0	0	1 506
2004	926	582	0	0	1508
2005	929	582	0	0	1511
2006	932	582	0	0	1514
2007	935	582	0	0	1517
2008	938	582	0	0	15?0
2009	941	582	0	0	1523
2010	944	582	0	0	1526

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO-
DSET UN.89LBC--CREATED 12/1/83

TABLE O-15
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT POPU- LATION	NATIVE POPU- LATION	NON- NATIVE POPU- LATION	NATIVE MALE POPU- LATION	NATIVE FEMALE POPU- LATION	NON- NATIVE MALE POPU- LATION	NON- NATIVE FEMALE POPU- LATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	707	223	484	130	93	306	178
1985	732	228	504	132	96	318	186
1986	758	234	524	134	99	331	193
1987	764	239	525	136	103	332	193
1988	822	244	578	138	106	365	213
1989	844	250	595	141	109	376	219
1990	878	255	623	143	112	393	229
1991	912	260	652	145	115	412	240
1992	888	265	623	147	119	393	229
1993	894	271	624	149	122	394	230
1994	907	276	631	151	125	399	233
1995	913	281	631	153	128	399	233
1996	911	287	624	155	132	394	230
1997	912	292	619	157	135	391	228
1998	911	298	613	160	139	381	226
1999	915	304	612	162	142	386	225
2000	918	310	608	164	146	384	224
2001	920	316	604	166	149	381	223
2002	921	322	600	169	153	379-	221
2003	924	328	596	171	157	376	220
2004	926	334	592	174	161	374	218
2005	929	341	588	176	165	372	217
2006	932	347	584	179	169	369	215
2007	935	354	581	182	173	367	214
2008	938	361	577	184	177	364	213
2009	941	368	573	187	181	362	211
2010	944	376	569	190	185	359	210

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET UN.89LBC--CREATED 12/1/83

TABLE O-16
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	PRE- SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	52	155	431	15
1984	707	57	166	467	16
1985	732	61	172	482	18
1986	758	64	178	497	19
1987	764	65	179	499	21
1988	822	70	193	537	23
1989	i%44	72	199	550	24
1990	878	74	208	570	26
19'%1	912	77	216	591	27
1992	888	76	212	572	28
1993	894	76	214	574	30
1994	907	77	218	581	31
1995	913	78	220	582	32
1996	911	78	221	578	33
1997	912	78	222	577	35
1998	911	79	223	574	36
1999	915	79	224	575	37
2000	918	80	226	574	38
2001	920	80	227	573	39
2002	921	81	228	572	40
2003	924	82	229	572	41
2004	926	82	230	571	-42
2005	'%29	83	232	571	.44
2006	932	84	233	571	45
2007	935	84	.234	571	-46
2008	938	85	236	571	47
2009	941	86	237	571	48
2010	944	87	238	571	49

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.89LBC--CREATED 12/1/83

TABLE O-17
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	707	55	6	48
1985	732	25	6	19
1986	758	26	6	20
1987	764	6	6	-0
1988	822	58	6	52
1989	844	22	6	16
1990	878	33	6	27
1991	912	35	6	28
1992	888	-24	7	-31
1993	894	6	6	-0
1994	907	13	7	7
1995	913	6	7	-1
1996	911	-2	7	-9
1997	912	1	7	-6
1998	911	-1	7	-7
1999	915	4	7	-3
2000	918	2	7	-5
2001	920	2	7	-5
2002	921	2	7	-6
2003	924	2	7	-5
2004	926	3	7	-5
2005	929	3	8	-5
2006	932	3	8	-5
2007	.935	3	8	-5
2008	938	.3	8	-5
2009	941	3	8	-5
2010	944	3	8	-5

SOURCE: VARIABLE'S PO, CHPO, NTIC, AND IM
DSET UN.89LBC--CREATED 12/1/83

TABLE O-18
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-0	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	373	186	0	0	559
1985	386	206	0·	0	592
1986	400	226	0	0	626
1987	401	246	0	0	647
1988	435	266	0	0	701
1989	446	342	0	0	788
1990	464	417	0	0	881
1991	482	492	0	0	974
1992	464	512	0	0	976
1993	466	532	0	0	998
1994	471	552	0	0	1023
1995	472	572	0	0	1044
1996	468	582	0	0	1050
1997	465	582	0	0	1047
1998	462	582	0	0	1044
1999	462	582	0	0	1044
2000	461	582	0	0	1043
2001	459	582	0	0	1041
2002	458	582	0	0	1040
2003	456	582	0	0	1038
2004	455	582	0	0	1037
2005	454	582	0	0	1036
2006	453	582	0	0	1035
2007	452	582	0	0	1034
2008	450	582	0	0	1032
2009	449	582	0	0	1031
2010	448	582	0	0	1030

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET UN.89LBC--CREATED 12/1/83

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	373	116	145	112	0
1985	386	122	148	116	0
1986	400	128	152	120	0
1987	401	134	153	113	0
1988	435	140	161	134	0
1989	446	146	167	132	0
1990	464	152	175	136	0
1991	482	158	183	141	0
1992	464	164	181	120	0
1993	466	170	182	114	0
1994	471	176	184	111	0
1995	472	182	185	104	0
1996	468	185	185	97	0
1997	465	185	185	96	0
1998	462	185	184	93	0
1999	462	185	184	93	0
2000	461	185	184	92	0
2001	459	185	184	91	0
2002	458	185	183	89	1
2003	456	185	183	88	0
2004	455	185	183	87	0
2005	454	185	183	86	0
2006	453	185	182	85	0
2007	452	185	182	84	0
2008	450	185	182	84	0
2009	449	185	182	83	0
2010	448	185	181	82	0

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.89LBC--CREATED 12/1/83

TABLE O-20
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74	2
1988	140	60	78	2
1989	146	62	82	2
1990	152	64	86	2
1991	158	66	90	2
1992	164	68	94	2
1993	170	70	98	2
1994	176	72	102	2
1995	182	74	106	2
1996	185	75	108	2
1997	185	75	108	2
1998	185	75	108	2
1999	185	75	108	2
2000	185	75	108	2
2001	185	75	108	2
2002	185	75	108	2
2003	185	75	108	2
2004	185	75	108	2
2005	185	75	108	2
2006	185	75	108	2
2007	185	75	108	2
2008	185	75	108	2
2009	185	75	108	2
2010	185	75	108	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.89LBC--CREATED 12/1/83

TABLE O-21
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	145	76	0	59	10
1985	148	78	0	59	11
1986	152	81	0	59	12
1987	153	81	0	59	13
1988	161	88	0	59	14
1989	167	90	0	59	18
1990	175	94	0	59	22
1991	183	98	0	59	26
1992	181	94	0	59	27
1993	182	95	0	59	28
1994	184	96	0	59	29
1995	185	96	0	59	30
1996	185	95	0	59	3?
1997	185	95	0	59	31
1998	184	94	0	59	31
1999	184	94	0	59	31
2000	184	94	0	59	31
2001	184	94	0	59	31
2002	183	93	0	59	31
2003	183	93	0	59	31
2004	183	93	0	59	31
2005	183	93	0	59	31
2006	182	92	0	59	31
2007	182	92	0	59	31
2008	182	92	0	59	31
2009	182	92	0	59	31
2010	181	92	0	59	31

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET UN.89LBC--CREATED 12/1/83

TABLE O-22
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	112	106	6
1985	116	110	6
1986	120	114	6
1987	113	107	6
1988	134	128	6
1989	132	126	6
1990	136	130	6
1991	141	135	6
1992	120	114	6
1993	114	108	6
1994	111	105	6
1995	104	98	6
1996	97	91	6
1997	96	90	6
1998	93	87	6
1999	93	87	6
2000	92	86	6
2001	91	85	6
2002	89	83	6
2003	88	82	6
2004	87	81	6
2005	86	80	6
2006	85	79	6
2007	84	78	6
2008	84	78	6
2009	83	77	6
2010	82	76	6

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET UN.89LBC—CREATED 12/1/83

TABLE O-23
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OILSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.89LBC--CREATED 12/1/83

TABLE O-24
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF DSET UN.89LBC--CREATED 12/1/83

TABLE 0-25
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-0	0	0
1982	0	0	0	0
1983	0	0	0'	0
1984	0	0	0	0
1985	0	0	0	0
1986	0	0	0	0
1987	0	0	0	0
1988	0	0		0
1989	0	0	0	0
1990	0	0	0	0
1991	0	0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	0	0
1996	0	0	0	0
1997	0	0	0	0
1998	0	0	0	0
1999	0	0	0	0
2000	0	0	0	0
2001	0	0	0	0
2002	0	0	0	0
2003	0	0	0	0
2004	0	0	0	0
2005	0	0	0	0
2006	0	0	0	0
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET UN.89LBC--CREATED 12/1/83

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TABLE O-26
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 LOW BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESILIENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0."	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	0	0	0	0	0	0
1987	0	0	0	0	0	0
1988	0	0	0	0	0	0
1989	0	0	0	0	0	0
1990	0	0	0	0	0	0
1991	0	0	0	0	0	0
1992	0	0	0	0	0	0
1993	0	0	0	0	0	0
1994	0	0	0	0	0	0
1995	0	0	0	0	0	0
1996	0	0	0	0	0	0
1997	0	0	0	0	0	0
1998	0	0	0	0	0	0
1999	0	0	0	0	0	0
2000	0	0	0	0	0	0
2001	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET UN.89LBC--CREATED 12/1/83

TABLE O-27
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	NoN- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	-o	0	1296 "
1982	665	233	0	0	898
1983	652	166	0	0	818
1984	791	186	119	0	1097
1985	780	412	60	0	1252
1986	848	503	52	0	1404
1987	1030	654	167	0	1851
1988	1109	815	38	0	1962
1989	1183	976	3	0	2162
1990	1297	1136	6	0	2439
1991	1552	1372	10	0	2934
1992	1709	1608	10	0	3 3 2 7
1993	1895	1733	8	0	3636
1994	2090	1858	6	0	3954
1995	2292	1983	80	0	4355
1996	2541	2108	161	0	4810
1997	3077	2358	2 5 8	0	5693
1998	3564	2608	167	0	6338
1999	4383	2858	68 "	0	7310
2000	4618	3108	0	0	7726
2001	4608	3108	0	0	7716
2002	4595	3108	0	0	7703
2003	4585	3108	0	0	7693
2004	4576	3108	0	0	7684
2005	4568	3108	0	0	7676
2006	4559	3108	0	0	7667
2007	4551	3108	0	0	7659 "
2008	4544	3108	0	0	7652
2009	4537	3108	0	0	7645
2010	4529	3108	0	0	7637

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET UN.89HBC--CREATED 12/1/83

0-27

TABLE O-28
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT POPU- LATION	NATIVE POPU- LATION	NON- NATIVE POPU- LATION	NATIVE MALE POPU- LATION	NATIVE FEMALE POPU- LATION	NON- NATIVE MALE POPU- LATION	NON- NATIVE FEMALE POPU- LATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	791	223	569	130	93	359	209
1985	780	228	552	132	96	348	203
1986	848	234	615	134	99	388	227
1987	1030	239	791	136	103	500	292
1988	1109	244	865	138	106	546	319
1989	1183	250	933	141	109	589	344
1990	1297	255	1042	143	112	658	384
1991	1552	260	1292	145	115	816	476
1992	1709	265	1443	147	119	911	532
1993	1895	271	1625	149	122	1026	599
1994	2090	276	1814	151	125	1145	668
1995	2292	281	2011	153	128	1270	741
1996	2541	287	2254	155	132	1423	831
1997	3077	292	2784	157	135	1758	1026
1998	3564	298	3265	160	139	2062	1203
1999	4383	304	4080	162	142	2576	1503
2000	4618	310	4308	164	146	2721	1587
2001	4608	316	4292	166	149	2711	1582
2002	4595	322	4274	169	153	2699	1575
2003	4585	328	4257	171	157	2688	1569
2004	4576	334	4242	174	161	2679	1563
2005	4568	341	4227	176	165	2669	1558
2006	4559	347	4212	179	169	2660	1552
2007	4551	354	4197	182	173	2650	1546
2008	4544	361	4182	184	177	2641	1541
2009	4537	368	4168	187	181	2632	1536
2010	4529	376	4154	190	185	2623	1531

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET UN.89HBC—CREATED 12/1/83

TABLE 0-29
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	52	155	431	15
1984	791	63	186	525	17
1985	780	64	183	515	18
1986	848	70	198	560	20
1987	1030	83	240	683	24"
1988	1109	88	259	736	26
1989	1183	94	276	784	28
1990	12!37	102	304	861	31
1991	1552	119	363	1036	35
1992	1709	129	400	1142	38
1993	1895	142	443	1269	41
1994	2090	155	489	1401	45
1995	2292	168	536	1540	48
1996	2541	185	594	1710	52
1997	3077	221	717	2079	60
1998	3564	253	829	2415	67
1999	4383	307	1018	2981	77
2000	4618	322	1072	3143	81
2001	4608	322	1070	3134	82
2002	4595	321	1067	3123	83
2003	4585	321	1066	3114	84
2004	4576	321	1064	3106	85-
2005	4568	321	1063	3098	-86
2006	4559	321	1062	3090	87
2007	4551	321	1060	3082	88
2008	4544	321	1059	3074	89
2009	4537	321	1058	3067	90
2010	4529	321	1057	3060	91

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE ... ".
DSET UN.89HBC--CREATED 12/1/83

TABLE O-30
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	780	-12	7	-18
1986	848	69	6	62
1987	1030	182	7	175
1988	1109	79	7	72
1989	1183	74	7	67
1990	1297	114	7	107
1991	1552	256	7	248
1992	1709	156	8	148
1993	1895	187	8	179
1994	2090	194	8	186
1995	2292	202	9	194
1996	2541	249	9	239
1997	3077	536	10	526
1998	3564	487	11	475
1999	4383	820	12	808
2000	4618	234	14	221
2001	4608	-10	14	-24
2002	4595	-13	14	-27
2003	4585	-10	14	-25
2004	4576	-9	14	-23
2005	4568	-8	15	-23
2006	4559	-9	15	-23
2007	4551	-8	15	-23
2008	4544	-8	15	-22
2009	4537	-7	15	-22
2010	4529	-7	15	-22

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.89HBC--CREATED 12/1/83

TABLE O-31
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT EMPLOYMENT	NoN-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-0	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	426	186	119	0	731
1985	416	412	60	0	888
1986	456	503	52	0	1012
1987	567	654	167	0	1388
1988	613	815	38	0	1466
1989	657	976	3	0	1636
1990	725	1136	6	0	1867
1991	882	1372	10	0	2264
1992	977	1608	10	0	2595
1993	1090	1733	8	0	2831
1994	1209	1858	6	0	3073
1995	1333	1983	80	0	3396
1996	1485	2108	161	0	3755
1997	1816	2358	258	0	4433
1998	2118	2608	167	0	4892
1999	2626	2858	68	0	5553
2000	2771	3108	0	0	5879
2001	2762	3108	0	0	5870
2002	2751	3108	0	0	5859
2003	2742	3108	0	0	5850
2004	2733	3108	0	0	5841
2005	2725	3108	0	0	5833
2006	2717	3108	0	0	5825
2007	2709	3108	0	0	5817
2008	2701	3108	0	0	5809,
2009	2694	3108	0	0	5802
2010	2686	3108	0	0	5794

TABLE O-32
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH 8ASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	416	122	169	123	2
1986	456	140	181	133	2"
1987	567	170	221	151	25
1988	613	200	229"	178	6
1989	657	230	244	183	0
1990	725	260	266	199	0
1991	882	335	310	236	0
1992	977	410	342	224	0
1993	1090	485	371	234	0
1994	1209	560	401	247	0
1995	1333	635	437	253	8
1996	1485	710	482	261	33
1997	1816	860	572	308	77
1998	2118	1010	645	346	116
1999	2626	1210	769	423	225
2000	2771	1310	806	438	217
2001	2762	1310	805	430	217
2002	2751	1310	803	421	217
2003	2742	1310	801	414	217
2004	2733	1310	799	407	217
2005	2725	1310	798	401	217
2006	2717	1310	796	394	217
2007	2709	1310	794	388	217
2008	2701	1310	793	381	217
2009	2694	1310	791	375	217
2010	2686	1310	790	369	217

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.89HBC--CREATED 12/1/83

TABLE O-33
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58 "	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	.54	66	2
1986	140	60	78	2
1987	170	70	98	2
1988	200	80	118	2
1989	230	90	138	2
1990	260	100	158	2
1991	335	125	208	2
1992	410	150	258	2
1993	485	175	308	2
1994	560	200	358	2
1995	635	225	408	2
1996	710	250	458	2
1997	860	300	558	2
1998	1010	350	658	2
1999	1210	450	758	2
2000	1310	450	858	2
2001	1310	450	858 "	2
2002	1310	450	858	2
2003	1310	450	858	2
2004	1310	450	858	2
2005	1310	450	858	2
2006	1310	450	858	2
2007	1310	450	858	2
2008	1310	450	858	2
2009	1310	450	858	2
2010	1310	450	858	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.89HBC--CREATED 12/1/83

TABLE O-34
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	169	85	0	59	25
1986	181	93	0	59	29
1987	221	119	0	59	43
1988	229	125	0	59	45
1989	244	133	0	59	52
1990	266	147	0	59	61
1991	310	178	0	59	73
1992	342	197	0	59	86
1993	371	220	0	59	93
1994	401	243	0	59	99
1995	437	269	0	59	110
1996	482	303	0	59	120
1997	572	374	0	59	138
1998	645	439	0	59	147
1999	769	554	0	59	155
2000	806	582	0	59	165
2001	805	580	0	59	165
2002	803	578	0	59	165
2003	801	576	0	59	165
2004	799	575	0	59	165
2005	798	573	0	59	165
2006	796	572	0	59	165
2007	794	570	0	59	165
2008	793	569	0	59	165
2009	791	567	0	59	165
2010	790	566	0	59	165

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET UN.89HBC--CREATED 12/1/83

TABLE o-35
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	TOTAL **CIVILIAN** GOVERNMENT EMPLOYMENT	**ENDOGENOUS** CIVILIAN GOVERNMENT **EMPLOYMENT**	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	125	119	6
1985	123	117	6
1986	133	127	6
1987	151	145	6
1988	178	172	6
1989	183	177	6
1990	199	193	6
1991	236	230	6
1992	224	218	6
1993	234	228	6
1994	247	241	6
1995	253	247	6
1996	261	255	6
1997	308	302	6
1 998	346	340	6
1999	423	417	6
2000	438	432	6
2001	430	424	6
2002	421	415	6
2003	414	408	6
2004	407	401	6
2005	401	395	6
2006	394	388	6
2007	388	382	6
2008	381	375	6
2009	375	369	6
2010	369	363	6

SOURCE: VARIABLES EMGO, **EMGOEG,** AND **EMGOEX**
DSET **UN.89HBC--CREATED** 12/1/83

TABLE 0-36
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140"
1985	55	7	0	0	62
1986	47	7	0	0	54
1987	35	157	0	0	192
1988	12	32	0	0	44
1989	3	0	0	0	3
1990	6	0	0	0	6
1991	10	0	0	0	10
1992	10	0	0	0	10
1993	8	0	0	0	8
1994	6	0	0	0	6
1995	33	55	0	0	88
1996	66	110	18	0	194
1997	83	198	54	0	335
1998	39	145	99	0	283
1999	6	70	117	100	293
2000	0	0	117	100	217
2001	0	0	117	100	217
2002	0	0	117	100	217
2003	0	0	117	100	217
2004	0	0	117	100	217
2005	0	0	117	100	217.
2006	0	0	117	100	217
2007	0	0	117	100	217
2008	0	0	117	100	217
2009	0	0	117	100	217
2010	0	0	117	100	217

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.89HBC--CREATED 12/1/83

TABLE O-37
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 **HIGH** BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	132	0	0	0	132
1987	96	0	0	0	96
1988	48	0	0	0	48
1989	24	0	0	0	24
1990	60	0	0	0	60
1991	108	0	0	0	108
1992	108	0	0	0	108
1993	84	0	0	0	84
1994	60	0	0	0	60
1995	253	0	0	0	253
1996	506	0	72	0	578
1997	632	0	216	0	848
1998	286	0	396	0	682
1999	33	0	468	0	501
2000	0	0	468	0	468
2001	0	0	468	0	468
2002	0	0	468	0	468
2003	0	0	468	0	468
2004	0	0	468	0	468
2005	0	0	468	0	468
2006	0	0	468	0	468
2007	0	0	468	0	468
2008	0	0	468	0	468
2009	0	0	468	0	468
2010	0	0	468	0	468

SOURCE: VARIABLES **EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS,** AND **EMPJOF**
DSET UN.89HBC--CREATED 12/1/83

TABLE O-38
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	RESIDENT" PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-0	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	2	52	132	186
1987	25	167	96	288
1988	6	38	48	92
1989	0	3	24	27
1990	0	6	60	66
1991	0	10	108	118
1992	0	10	108	118
1993	0	8	84	92
1994	0	6	60	66
1995	8	80	253	341
1996	33	161	578	772
1997	77	258	848	1183
1998	116	167	682	965
1999	225	68	501	794
2000	217	0	468	685
2001	217	0	468	685
2002	217	0	468	685
2003	217	0	468	685
2004	217	0	468	685
2005	217	0	468	685
2006	217	0	468	685
2007	217	0	468	685
2008	217	0	468	685
2009	217	0	468	685
2010	217	0	468	685

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET UN.89HBC--CREATED 12/1/83

TABLE O-39
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 HIGH BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	o"	0	0	0
1983	0	0	o	0	0	0
1984	236	21	129	107	0	21
1985	218	2	211	7	0	2
1986	186	2	179	7	0	2
1987	288	25	131	157	0	25
1988	92	6	60	32	0	6
1989	27	0	27	0	0	0
1990	66	0	66	0	0	0
1991	118	0	118	0	0	0
1992	118	0	118	0	0	0
1993	92	0	92	0	0	0
1994	66	0	66	0	0	0
1995	341	8	286	55	0	8
1996	972	33	662	110	18	15
1997	1183	77	985	198	54	23
1998	965	116	820	145	99	17
1999	794	225	624	170	117	108
2000	685	217	585	100	117	100
2001	685	217	585	100	117	100
2002	685	217	585	100	117	100
2003	685	217	585	100	117	100
2004	685	217	585	100	117	100
2005	685	217	585	100	117	1 00
2006	685	217	585	100	117	100
2007	685	217	585	100	117	100
2008	685	217	585	100	117	100
2009	685	217	585	100	117	100
2010	685	217	585	100	117	100

SOURCE: VARIABLES **EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK,** AND **EMREPJNS**
DSET UN.89HBC--CREATED 12/1/83

TABLE O-40
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	-0	0	1296
1982	665	233	0	0	898
1983	652	166	0	0	818
1984	791	186	119	0	1097
1985	756	262	60	0	1079
1986	830	337	98	0	1264
1987	903	412	170	0	1485
1988	889	488	43	0	1420
1989	911	593	9	0	1513
1990	975	699	12	0	1686
1991	1089	854	10	0	1953
1992	1139	1009	10	0	2158
1993	1223	1165	8	0	2396
1994	1313	1320	6	0	2639
1995	1427	1476	79	0	2982
1996	1579	1576	159	0	3314
1997	1808	1676	253	0	3737
1998	1985	1776	163	0	3924
1999	2275	1776	66	0	4117
2000	2235	1776	0	0	4011
2001	2233	1776	0	0	4009
2002	2229	1776	0	0	4005
2003	2227	1776	0	0	4003
2004	2226	1776	0	0	4002
2005	2224	1776	0	0	4000
2006	2223	1776	0	0	3999
2007	2222	1776	0	0	3998
2008	2221	1776	0	0	3997
2009	2221	1776	0	0	3997
2010	2220	1776	0	0	3996

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET UN.92MBC--CREATED 12/3/83

TABLE O-41
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	NATIVE POPULATION	NON-NATIVE POPULATION	NATIVE MALE POPULATION	NATIVE FEMALE POPULATION	NON-NATIVE MALE POPULATION	NON-NATIVE FEMALE POPULATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	791	223	569	130	93	359	209
1985	756	228	528	132	96	334	195
1986	830	234	596	134	99	376	220
1987	903	239	664	136	103	419	245
1988	889	244	645	138	106	407	238
1989	911	250	661	141	109	418	244
1990	975	255	720	143	112	455	265
1991	1089	260	829	145	115	524	306
1992	1139	265	- 873	147	119	552	322
1993	1223	271	952	149	122	601	351
1994	1313	276	1037	151	125	655	382
1995	1427	281	1146	153	128	724	422
1996	1579	287	1292	155	132	816	4 7 6
1997	1808	292	1516	157	135	957	558
1998	1985	298	1687	160	139	1065	622
1999	2275	304	1971	162	142	1245	726
2000	2235	310	1926	164	146	1216	710
2001	2233	316	1917	166	149	1211	706
2002	2229	322	1907	169	153	1205	703
2003	2227	328	1899	171	157	1199	700
2004	2226	334	1891	174	161	1194	697
2005	2224	341	1883	176	165	1189	694
2006	2223	347	1876	179	169	1184	691
2007	2222	354	1868	182	173	1179	688
2008	2221	361	1860	184	177	1175	6B5
2009	2221	368	1853	187	181	1170	683
2010	2220	376	1845	190	185	1165	680

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE, PONNMA, AND PONNFE
DSET UN.92MBC--CREATED 12/3/83

TABLE O-42
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	52	155	431	15
1984	791	63	186	525	17
1985	756	62	177	499	18
1986	830	68	194	547	20
1987	903	74	211	596	22
1988	889	74	209	584	23
1989	911	76	214	596	25
1990	975	81	230	637	27
1991	1089	89	257	714	29
1992	1139	92	269	746	31
1993	1223	98	290	802	33
1994	1313	104	311	862	36
1995	1427	112	338	939	38
1996	1579	122	374	1042	41
1997	1808	137	427	1199	45
1998	1985	149	468	1319	48
1999	2275	169	535	1518	53
2000	2235	166	527	1489	54
2001	2233	166	527	1485	55
2002	2229	166	527	1480	56
2003	2227	167	527	1477	57
2004	2226	167	527	1474	58
2005	2224	167	528	1470	59
2006	2223	168	528	1467	60
2007	2222	168	528	1464	61
2008	2221	169	529	1462	62
2009	2221	169	529	1459	63
2010	2220	170	530	1457	64

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.92MBC--CREATED 12/3/83

TABLE 0-43
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	756	-35	7	-41
1986	830	73	6	67
1987	903	74	7	67
1988	889	-14	7	-20
1989	911	21	7	15
1990	975	64	7	57
1991	1089	114	7	108
1992	1139	50	7	43
1993	1223	84	7	77
1994	1313	90	7	83
1995	1427	114	7	107
1996	1579	152	8	144
1997	18(38	229	8	221
1998	1985	177	9	169
1999	2275	290	9	281
2000	2235	-40	10	-49
2001	2233	-3	10	-12
2002	2229	-4	10	-13
2003	2227	-2	10	-12
2004	2226	-1	10	-11
2005	2224	-1	10	-11
2006	2223	-1	10	-11
2007	2222	-1	10	-11
2008	2221	-1	11	-11
2009	2221	-0	11	-11
2010	2220	-0	11	-11

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.92MBC--CREATED 12/3183

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TABLE O-44
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-0	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	426	186	119	0	731
1985	401	262	60	0	724
1986	445	337	98	0	879
1987	488	412	170	0	1069
1988	476	488	43	0	1007
1989	487	593	9	0	1089
1990	524	699	12	0	1235
1991	593	854	10	0	1457
1992	621	1009	10	0	1640
1993	671	1165	8	0	1844
1994	724	1320	6	0	2050
1995	793	1476	79	0	2347
1996	885	1576	159	0	2619
1997	1025	1676	253	0	2954
1998	1133	1776	163	0	3071
1999	1311	1776	66	0	3153
2000	1284	1776	0	0	3060
2001	1279	1776	0	0	3055
2002	1274	1776	0	0	3050
2003	1270	1776	0	0	3046
2004	1266	1776	0	0	3042
2005	1262	1776	0	0	3038
2006	1259	1776	0	0	3035
2007	1255	1776	0	0	3031
2008	1252	1776	0	0	3028
2009	1248	1776	0	0	3024
2010	1245	1776	0	0	3021

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET UN.92MBC--CREATED 12/3/83

TABLE 0-45
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BAS 1 C EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	401	122	158	120	2
1986	445	128	174	1 30	12
1987	488	134	192	133	28
1988	476	140	185	144	7
1989	487	155	190	142	0
1990	524	170	203	151	0
1991	593	200	225	168	0
1992	621	230	239	152	-0
1993	671	260	258	153	0
1994	724	290	277	158	0
1995	793	320	304	160	9
1996	885	350	335	164	35
1997	1025	380	379	183	82
1998	1133	410	407	195	120
1999	1311	410	451	222	227
2000	1284	410	441	215	217
2001	1279	410	440	212	217
2002	1274	410	439	208	217
2003	1270	410	439	204	217
2004	1266	410	438	201	217
2005	1262	410	437	198	217
2006	1259	410	436	195	217
2007	1255	410	436	192	217
2008	1252	410	435	190	217
2009	1248	410	434	187	217
201 0	1245	410	434	184	217

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.92MBC--CREATED 12/3/83

TABLE 0-46
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74	2
1988	140	60	78	2
1989	155	65	88	2
1990	170	70	98	2
1991	200	80	118	2
1992	230	90	138	2
1993	260	100	158	2
1994	290	110	178	2
1995	320	120	198	2
1996	350	130	218	2
1997	380	140	238	2
1998	410	150	258	2
1999	410	150	258	2
2000	410	150	258	2
2001	410	150	258	2
2002	410	150	258	2
2003	410	150	258	2
2004	410	150	258	2
2005	410	150	258	2
2006	410	150	258	2
2007	410	150	258	2
200$	410	150	258	2
2009	410	150	258	2
2010	410	150	258	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.92MBC--CREATED 12/3/83

TABLE O-47
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0"	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	158	82	0	59	17
1986	174	92	*	59	"23
1987	192	103	0	59	30
1988	185	98	0	59	28
1989	190	99	0	59	32
1990	203	106	0	59	38
1991	225	120	0	59	46
1992	239	126	0	59	54
1993	258	136	0	59	62
1994	297	147	0	59	71
1995	304	162	0	59	82
1996	335	184	0	59	92
1997	379	219	0	59	102
1998	407	245	0	59	103
19'39	451	295	0	59	98
2000	441	288	0	59	94
2001	440	287	0	59	94
2002	439	286	0	59	94
2003	439	285	0	59	94
2004	438	284	0	59	94
2005	437	284	0	59	94
2006	436	283	0	59	94
2007	436	282	0	59	94
2008	435	282	0	59	94
2009	434	281	0	59	"94
2010	434	280	0	59	'34

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, ANO EMSUEN
OSET UN.92MBC--CREATED 12/3/83

TABLE O-48
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	125	119	6
1985	120	114	6
1986	130	124	6
1987	133	127	6
1988	144	138	6
1989	142	136	6
1990	151	145	6
1991	168	162	6
1992	152	146	6
1993	153	147	6
1994	158	152	6
1995	160	154	6
1996	164	158	6
1997	183	177	6
1998	195	189	6
1999	222	216	6
2000	215	209	6
2001	212	206	6
2002	208	202	6
2003	204	198	6
2004	201	195	6
2005	198	192	6
2006	195	189	6
2007	192	186	6
2008	190	184	6
2009	187	181	6
2010	184	178	6

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET UN.92MBC--CREATED 12/3/83

TABLE 0-49
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140
1985	55	7	0	0	62
1986	53	57	0	0	110
1987	41	157	0	0	198
1988	18	32	0	0	50
1989	9	0	0	0	9
1990	12	0	0	0	12
1991	10	0	0	0	10
1992	10	0	0	0	10
1993	8	0	0	0	8
1994	6	0	0	0	6
1995	33	55	0	0	88
1996	66	110	18	0	194
1997	83	198	54	0	335
1998	39	145	99	0	283
1999	6	70	117	100	293
2000	0	0	117	100	217
2001	0	0	117	100	217
2002	0	0	117	100	217
2003	0	0	117	100	217
2004	0	0	117	100	217
2005	0	0	117	100	217
2006	0	0	117	100	217
2007	0	0	117	100	217
2008	0	0	117	100	217
2009	0	0	117	100	217
2010	0	0	117	100	217

TABLE O-50
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	OFFSHORE SHORT-TERM SKILLELI PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	148	0	0	0	148
1987	112	0	0	0	112
1988	64	0	0	0	64
1989	40	0	0	0	40
1990	76	0	0	0	76
1991	108	0	0	0	108
1992	108	0	0	0	108
1993	84	0	0	0	84
1994	60	0	0	0	60
1995	253	0	0	0	253
1996	506	0	72	0	578
1997	632	0	216	0	848
1998	286	0	396	0	682
1999	33	0	468	0	501
2000	0	0	468	0	468
2001	0	0	468	0	468
2002	0	0	468	0	468
2003	0	0	468	0	468
2004	0	0	468	0	468
2005	0	0	468	0	46$
2006	0	0	468	0	468
2007	0	0	468	0	468
2008	0	0	468	0	468.
2009	0	0	468	0	468
2010	0	0	468	0	468

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET UN.92MBC--CREATED 12/3/83

TABLE O-51
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 **MEDIUM** BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-o	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	12	98	148	258
1987	28	170	112	310
1988	7	43	64	114
1989	0	9	40	49
1990	0	12	76	88
1991	0	10	108	118
1992	-0	10	108	118
1993	0	8	84	92
1994	0	6	60	66
1995	9	79	253	341
1996	35	159	578	772
1997	82	253	848	1183
1998	120	163	682	965
1999	227	66	501	794
2000	217	0	468	685
2001	217	0	468	685
2002	217	0	468	685
2003	217	0	468	685
2004	217	0	468	685
2005	217	0	468	685
2006	217	0	468	685
2007	217	0	468	685
2008	217	0	468	685
2009	217	0	468	685
2010	217	0	468	685

SOURCE: VARIABLES **EMREPJ, EMENPJ, EMCOPJ,** ANO EMPJ
DSET UN.92MBC--CREATED 12/3/83

RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 MEDIUM BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	236	21	129	107	0	21
1985	218	2	2%1	7	0	2
1986	258	12	201	57	0	12
1987	310	28	153	157	0	28
1988	114	7	82	32	0	7
1989	49	0	49	0	0	0
1990	88	0	88	0	0	0
1991	118	0	118	0	0	0
1992	118	-0	118	0	0	-0
1993	92	0	92	0	0	0
1994	66	0	66	0	0	0
1995	341	9	286	55	0	9
1996	772	35	662	110	18	17
1997	1183	82	985	198	54	28
1998	965	1 20	820	145	99	21
1999	794	2'27	624	170	117	110
2000	685	217	585	100	117	100
2001	685	2%7	585	100	117	100
2002	685	217	585	100	117	100
2003	685	217	585	100	117	100
2004	685	217	585	100	117	100
2005	685	217	585	100	117	100
2006	685	217	585	100	117	100
2007	685	217	585	100	117	100
2008	685	217	585	100	117	100
2009	685	217	585	100	117	100
2010	685	217	585	100	117	100

SOURCE: VARIABLES EMPJ,EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET UN.92MBC--CREATED 12/3/83

TABLE 0-53
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES ANO MILITARY
1981	687	609	-0	0	1296
1982	665	233	0	0	898.
1983	652	166	0	0	818
1984	791	186	119	0	1097
1985	756	262	60"	0	1079
1986	808	337	70	0	1215
1987	904	412	170	0	1487
1988	895	488	46	0	1429
1989	916	'593	10	0	1520
1990	990	699	29	0	1718
1991	1101	854	27	0	1982
1992	1166	1009	59	0	2234
1993	1267	165	81	0	2513
1994	1368	320	21	0	2709
1995	1479	476	93	0	3 0 4 8
1996	1630	596	159	0	3365
1997	1858	676	253	0	3788
1998	2035	776	163 .	0	3974
1999	2325	776	66	0	4167
2000	2285	1776	0	0	4061
2001	2282	1776	0	0	4058
2002	2279	1776	0	0	4055
2003	2276	1776	0	0	4052
2004	2275	1776	0	0	4051"
2005	2274	1776	0	0	4050
2006	2272	1776	0	0	4048
2007	2271	1776	0	0	4047
2008	2270	1776	0	0	4046
2009	2269	1776	0	0	4045
2010	2269	1776	0	0	4045

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ,POML, AND POTO
OSET UN.891IC--CREATED 12/1/83

TABLE O-54
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	791	223	569	130	93	359	209
1985	756	228	528	132	96	334	195
1986	808	234	574	134	99	362	211
1987	904	239	666	136	103	420	245
1988	895	244	651	138	106	411	240
1989	916	250	667	141	109	421	246
1990	990	255	735	143	112	464	271
1991	1101	260	841	145	115	531	310
1992	1166	265	900	147	119	569	332
1993	1267	271	996	149	122	629	367
1994	1368	276	1092	151	125	690	402
1995	1479	281	1198	153	128	756	441
1996	1630	287	1343	155	132	848	495
1997	1858	292	1566	157	135	989	577
1998	2035	298	1737	160	139	1097	640
199!3	2325	304	2021	162	142	1277	745
2000	2285	310	1976	164	146	1248	728
2001	2282	316	1966	166	149	1242	725
2002	2279	322	1957	169	153	1236	721
2003	2276	328	1 948	171	157	1230	718
2004	2275	334	1941	174	161	1226	715
2005	2274	341	1933	176	165	1221	712
2006	2272	347	%924	179	169	1215	709
2007	2271	354	1917	182	173	1210	706
2008	2270	361	1909	184	177	1205	703
2009	2269	368	1901	187	181	1201	701
2010	2269	376	1893	190	185	1196	698

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET UN.891IC--CREATED 12/1/83

· TABLE O-55
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	.52	155	431	15
1984	791	63	186	525	17
1985	756	62	177	499	18
1986	808	67	189	532	20
1987	904	74	212	596	22
1988	895	74	210	588	2 3
1989	916	76	216	600	25
1990	990	82	233	648	27
1991	1101	89	260	722	30
1992	1166	94	275	765	32
1993	1267	101	300	8 3 3	34
1994	1368	108	324	900	36
1995	1479	15	350	975	3 9
1996	1630	25	385	1077	42
1997	1858	41	439	1233	46
1998	2035	52	480	1354	49
1999	2325	92	547	1553	53
2000	2285	69	538	1524	54
2001	2282	69	538	1519	55
2002	2279	170	538	1515	56
2003	2276	170	538	1511	57
2004	2275	170	538	1508	58
2005	2274	171	539	1505	59
2006	2272	171	539	1501	60
2007	2271	172	540	1499	61
2008	2270	172	540	1496	62
2009	2269	173	540	1493	63
2010	2269	173	541	1490	64

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.891IC--CREATED 12/1/83

TABLE 0-56
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	756	-35	7	-41
1986	808	51	6	45
1987	904	97	6	90
1988	895	-9	7	-16
1989	916	21	7	14
1990	990	73	7	67
1991	1101	111	7	104
1992	1166	65	7	58
1993	1267	101	7	94
1994	1368	101	7	94
1995	1479	111	8	104
1996	1630	151	8	143
1997	1 858	228	8	220
1998	2035	177	9	168
1999	2325	290	9	281
2000	2285	-40	10	-50
2001	2282	-3	10	-13
2002	2279	-4	10	-13
2003	2276	-3	10	-12
2004	2275	-1	10	-11
2005	2274	-1	10	-11
2006	2272	-2	10	-12
2007	" 2271	-1	10	-11
2008	2270	-1	11	-12
2009	2269	-1	11	-11
2010	2269	-1	11	-12

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.891IC--CREATED 12/1/83

TABLE O-57
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 **IMPACT** CASE

	RESIDENT EMPLOYMENT	NoN-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	"MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-cl	0	977
1982	352	233	0	0	585.
1983	341	166	0	0	507
1984	426	186	119.	0	731
1985	401	262	60	0	724
1986	431	337	70	0	838
1987	489	412	170	0	1071
1988	480	488	46	0	1014
1989	490	593	10	0	1094
1990	533	699	29	0	1262
1991	600	854	27	0	1481
1992	638	1009	59	0	1706
1993	698	1165	81	0	1944
1994	758	1320	21	0	2100
1995	825	1476	93	0	2 3 9 4
1996	916	1576	159	0	2651
1997	1056	1676	253	0	2985
1998	1164	1776	163	0	3103
1999	1342	1776	66	0	3184
2000	1315	1776	0	0	3091
2001	1310	1776	0	0	3086
2002	1305	1776	0	0	3081
2003	1301	1776	0	0	3077
2004	1297	1776	0	0	3073
2005	1293	1776	0	0	3069
2006	1289	1776	0	0	3065.
2007	1286	1776	0	0	3062
2008	1282	1776	0	0	3058
2009	1279	1776	0	0	3055
2010	1275	1776	0	0	3051

SOURCE: **VARIABLES EMRETO, EMENNOPJ,EMENPJ, EMML, AND** EMTO
DSET UN.891IC--CREATED 12/1/83

TABLE O-58
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE. 89 IMPACT CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	.368	110	167	91	0
1982	352	110	143.	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	401	122	158	120	2
1986	431	128	169	127	7
1987	489	134	193	133	29
1988	480	140	186	145	9
1989	490	155	191	143	2
1990	533	170	206	153	4
1991	600	200	228	169	3
1992	638	230	246	155	7
1993	698	260	268	158	11
1994	758	290	287	164	18
1995	825	320	313	165	27
1996	916	350	344	169	53
1997	1056	380	388 .	188	100
1998	1164	410	415	200	138
1999	1342	410	460	227	245
2000	1315	410	450	220	235
2001	1310	410	4 4 9	216	235
2002	1 305	410	448	212	235
2003	1301	410	447	208	235
2004	1297	410	446	206	235
2005	1293	410	446	203	235
2006	1289	410	445	199	235
2007	1286	410	444	196	235
2008	1282	410	444	194	235
2009	1279	410	443	191	235
2010	1275	410	442	188	235

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.891IC--CREATED 12/1/83

TABLE 0-59
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE **89 IMPACT** CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74"	2
1988	140	60	78	2
1989	155	65	88	2
1990	170	70	98	2
1991	200	80	118	2
1992	230	90	138	2
1993	260	100	158	2
1994	290	110	178	2
1995	320	120	198	2
1996	350	130	218	2
1997	380	140	238	2
1998	410	150	258	2
1999	410	150	258	2
2000	410	150	2 5 8	2
2001	410	150	258	2
2002	410	150	258	2
2003	410	150	258	2
2004	410	150	258	2
2005	410	150	258	2
2006	410	150	258	2
2007	410	150	258	2
2008	410	150	258	2
2009	410	150	258	2
2010	410	150	258	2

SOURCE: VARIABLES **EMBA, EMFI, EMFP,** ANO **EMBANF**
DSET **UN.891IC--CREATED** 12/1/83

TABLE O-60
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SLIPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	158	82	0	59	. 17
1986	169	88	0"	59	21
1987	193	103	0	59	30
1988	186	99	0	59	28
1989	191	100	0	59	32
1990	206	109	0	59	39
1991	228	122	0	59	47
1992	246'	130	0	59	57
1993	268	143	0	59	66
1994	287	156	0	59	71
1995	313	171	0.	59	83
1996	344	193	0	59	92
1997	388	227	0	59	102
1998	415	254	0	59	103
1999	460	303	0	59	98
2000	450	296	0	59	94
2001	449	295	0	59	94
2002	448	294	0	59	94
2003	447	294	0	59	94
2004	446	293	0	59	94
2005	446	292	0	59	94
2006	445	291	0	59	94
2007	444	291	0	59	94
2008	444	290	0	59	94
2009	443	289	0	59	94
2010	442	289	0	59	94

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET UN.891IC--CREATED 12/1/83

TABLE O-61
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE   /

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	125	119	6
1985	120	114	6
1986	127	121	6
1987	133	127	6"
1988	145	139	6
1989	143	137	6
1990	153	147	6
1991	169	163	6
1992	155	149	6
1993	158	152	6
1994	164	158	6
1995	165	159	6
1996	169	163	6
1997	188	182	6
1998	200	194	6
1999	227	221	6
2000	220	214	6
2001	216	210	6
2002	212	206	6
2003	208	202	6
2004	206	200	6
2005	203	197	6
2006	199	193	6
2007	196	190	6
20(38	194	188	6
2009	191	185	6
2010	188	182	6

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET UN.891IC--CREATED 12/1/83

TABLE O-62
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140
1985	55	7	0	0	62
1986	48	29	0	0	77
1987	36	163	0	0	199
1988	15	40	0	0	55
1989	5	7	0	0	12
1990	15	18	0	0	33
1991	16	14	0	0	30
1992	32	34	0	0	66
1993	28	64	0	0	92
1994	13	10	1	15	39
1995	40	64	1	15	120
1996	66	110	20	16	212
1997	83	198	56	16	353
1998	39	145	101	16	301
1999	6	70	119	116	311
2000	0	0	119	116	235
2001	0	0	119	116	235
2002	0	0	119	116	235
2003	0	0	119	116	235
2004	0	0	119	116	235
2005	0	0	119	116	235
2006	0	0	119	116	235
2007	0	0	119	116	235
2008	0	0	119	116	235
2009	0	0	119	116	235
2010	0	0	119	116	235

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.891IC--CREATED 12/1/83

TABLE 0-63
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE   /

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0"	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	138	0	0	0	138
1987	112	0	0	0	112
1988	66	0	0	0	66
1989	36	0	0	0	36
1990	122	0	0	0	122
1991	151	0	0	0	151
1992	234	0	0	0	234
1993	194	0	0	0	194
1994	103	0	0	0	103
1995	293	0	12	0	305
1996	506	0	86	0	5 9 2
1997	632	0	240	0	872
1998	286	0	420	0	706
1999	33	0.	492	0	525
2000	0	0	492	0	492
2001	0	0	492	0	492
2002	0	0	492	0	492
2003	0	0	492	0	492
2004	0	o	492	0	492
2005	0	0	492	0	492
2006	0	0	492	0	492
2007	0	0	4'32	0	492
2008	0	0	492	0	492
2009	o	0	492	0	492
2010	0	0	492	0	492

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET UN.891IC--CREATED 12/1/83

TABLE O-64
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-0	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	7	70	138	215
1987	29	170	112	311
1988	9	46	66	121
1989	2	10	36	48
1990	4	29	122	155
1991	3	27	151	181
1992	7	59	234	300
1993	11	81	194	286
1994	18	21	103	142
1995	27	93	30'5	425
1996	53	159	592	804
1997	100	253	872	1225
1998	138	163	706	1007
1999	245	66	525	836
2000	235	0	492	727
2001	235	0	492	727
2002	235	0	492	727
2003	235	0	492	727
2004	235	0	492	727
2005	235	0	492	727
2006	235	0	492	727
2007	235	0	492	727
2008	235	0	492	727
2009	235	0	492	727
2010	235	0	492	727

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET UN.891IC--CREATED 12/1/83

TABLE O-65
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 89 IMPACT CASE   /

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	236	21	129	107	0	21
1985	218	2	211	7	0	2
1986	215	7	186	29	0	7
1987	311	29	148	163	0	29
1988	121	9	81	40	0	9
1989	48	2	41	7	0	2
1990	155	4	137	18	0	4
1991	181	3	167	14	0	3
1992	300	7	266	34	0	7
1993	286	11	222	64	0	11
1994	142	18	117	25	1	17
1995	425	27	346	79	1	26
1996	804	53	678	126	20	33
1997	1225	100	1011	214	56	44
1998	1007	138	846	161	101	37
1999	836	245	650	186	119	126
2000	727	235	611	116	119	116
2001	727	235	611	116	119	116
2002	727	235	611	116	119	116
2003	727	235	611	116	119	116
2004	727	235	611	116	119	116
2005	727	235	611	116	119	116
2006	727	235	611	116	119	116
2007	727	235	611	116	119	116
2008	727	235	611	116	119	116
2009	727	235	611	116	119	116
2010	727	235	611	116	119	116

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
OSET   UN.89IIC--CREATED 12/1/83

TABLE O-66
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT POPULATION	NON- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	-0	0	1296
1982	665	233	0	0	898
1983	652	166	0	0	81 8
1984	791	186	119	0	1097
1985	756	262	60	0	1079
1986	864	337	143	0	1344
1987	909	412	178	0	1499
1988	896	488	55	0	1439
1989	917	593	19	0	1530
1990	997	699	58	0	1754
1991	1106	854	44	0	2004
1992	1256	100!3	79	0	2343
1993	1364	1165	103	0	2632
1994	1423	1320	17	0	2760
1995	1534	1476	84	0	3094
1996	1686	1576	159	0	3421
1997	1914	1676	254	0	3844
1998	2091	1776	163	0	4030
1999	2381	1776	66	0	4223
2000	2341	1776	0	0	4117
2001	2338	1776	0	0	4114
2002	2334	1776	0	0	4110
2003	2331	1776	0	0	4107
2004	2330	1776	0	0	4106
2005	2328	1776	0	0	4104
2006	2326	1776	0	0	4102
2007	2326	1776	0	0	4102
2008	2325	1776	0	0	4101
2009	2324	1776	0	0	4100
2010	2323	1776	0	0	4099

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET UN.921IC--CREATED 12/3/83

TABLE 0-67
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT POPU- LATION	NATIVE POPU- LATION	NON- NATIVE POPU- LATION	NATIVE MALE POPU- LATION	NATIVE FEMALE POPU- LATION	NON- NATIVE HALE POPU- LATION	NON- NATIVE FEMALE POPU- LATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	791	223	569	130	93	359	209
1985	756	228	528	132	96	334	195
1986	864	234	6 3 O 134		99	398	232
1987	909	239	670	136	103	423	247
1988	896	244	652	138	106	412	240
1989	917	250	668	141	109	422	246
1990	997	255	742	143	112	469	274
1991	1106	260	846	145	115	534	312
1992	1256	265	990	147	119	625	365
1993	1364	271	1093	149	122	690	403
1994	1423	276	1147	151	125	725	423
1995	1 534	281	1253	153	128	791	4 6 2
1996	1686	287	1399	155	132	884	516
1997	1914	292	1 622	157	135	1024	598
1998	2091	298	1793	160	139	1132	661
1999	2381	304	2077.	162	142	1312	765
2000	2341	310	2032	164	146	1283	749
2001	2338	316	2023	166	149	1277	745
2002	2334	322	2012	169	153	1271	741
2003	2331	328	2003	171	157	1265	738
2004	2330	334	1995	174	161	1260	735
2005	2328	341	1987	176	165	1255	732
2006	2326	347	1979	179	169	1250	729
2007	2326	354	1971	182	173	1245	726
2008	2325	361	1963	184	177	1240	723
2009	2324	368	1955	187	181	1235	721
2010	2323	376	1947	190	185	1230	718

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE, PONNMA, AND PONNFE
DSET UN.921IC--CREATED 12/3/83

TABLE O-68
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	687	47	168	459	13
1982	665	50	160	442	14
1983	652	52	155	431	15
1984	791	63	186	525	17
1985	756	62	177	499	18
1986	864	71	202	571	21
1987	909	75	212	599	22
1988	896	74	210	588	23
1989	917	76	216	600	25
1990	997	82	235	653	27
1991	1106	90	261	726	30
1992	1256	100	296	827	33
1993	1364	107	322	900	35
1994	1423	111	336	939	37
1995	1534	119	363	1013	39
1996	1686	129	398	1116	42
1997	1914	144	451	1272	46
1998	2091	156	492	1393	49
1999	2381	176	560	1592	54
2000	2341	173	551	1563	55
2001	2338	173	551	1558	56
2002	2334	173	551	1553	57
2003	2331	174	551	1549	58
2004	2330	174	551	1546	59
2005	2328	174	551	1543	60
2006	2326	175	552	1539	61
2007	2326	175	552	1536	62
2008	2325	176	552	1533	63
2009	2324	176	553	1531	64
2010	2323	177	553	1528	65

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.921IC--CREATED 12/3/83

TABLE O-69
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	756	-35	7	-41
1986	864	107	6	101
1987	909	45	7	38
1988	896	-13	7	-19
1989	917	21	7	15
1990	997	80	7	73
1991	1106	109	7	102
1992	1256	150	7	143
1993	1364	108	7	101
1994	1423	60	7	52
1995	1534	111	8	103
1996	1686	152	8	144
1997	1914	228	8	220
1998	2091	177	9	168
1999	2381	290	9	281
2000	2341	-40	10	-50
2001	2338	-3	10	-13
2002	2334	-5	10	-15
2003	2331	-2	10	-12
2004	2330	-2	10	-12
2005	2328	-1	10	-12
2006	2326	-2	10	-12
2007	2326	-1	11	-11
2008	2325	-1	11	-12
2009	2324	-1	11	-12
2010	2323	-1	11	-12

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.921IC--CREATED 12/3/83

TABLE O-70
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-0	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	426	186	119	0	731
1985	401	262	60	0	" 724
1986	466	337	143	0	946
1987	491	412	178	0	1082
1988	480	488	55	0	1024
1989	491	593	19	0	1104
1990	538	699	58	0	1295
1991	603	854	44	0	1502
1992	694	1009	79	0	1782
1993	759	1165	103	0	2027
1994	793	1320	17	0	2130
1995	859	1476	84 ·	0	2419
1996	951	1576	159	0	2686
1997	1091	1676	254	0	3021
1998	1199	1776	163	0	3137
1999	1377	1776	66	0	3219
2000	1350	1776	0	0	3126
2001	1345	1776	0	0	3121
2002	1339	1776	0	0	3115
2003	1335	1776	0	0	3111
2004	1331	1776	0	0	3107
2005	1327	1776	0	0	3103
2006	1323	1776	0	0	3099
2007	1320	1776	0	0	3096
2008	1316	1776	0	0	3092
2009	1312	1776	0	0	3088
2010	1309	1776	0	0	3085

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET UN.921IC—CREATED 12/3/83

TABLE O-71
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	401	122	158	120	2
1986	466	128	181	136	21
1987	491	134	194	134	30
1988	480	140	187	145	9
1989	491	155	192	143	2
1990	538	170	209	154	5
1991	603	200	229	170	4
1992	694	230	262	166	35
1993	759	260	286	170	43
1994	793	290	296	170	37
1995	859	320	322	171	46
1996	951	350	353	175	73
1997	1091	380	398	194	119
1998	1199	410	425	206	158
1999	1377	410	470	233	265
2000	1350	410	459	225	255
2001	1345	410	459	221	255
2002	1339	410	457	217	255
2003	1335	410	457	213	255
2004	1331	410	456	210	255
2005	1327	410	455	207	255
2006	1323	410	454	204	255
2007	1320	410	454	201	255
2008	1316	410	453	198	255
2009	1312	410	452	195	255
2010	1309	410	452	192	255

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.921IC--CREATED 12/3/83

TABLE O-72
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74	2
1988	140	60	78	2
1989	155	65	88	2
1990	170	70	98	2
1991	200	80	118	2
1992	230	90	138	2
1993	260	100	158	2
1994	290	110	178	2
1995	320	120	198	2
1996	3 5 0	130	218	2
1997	380	140	238	2
1998	410	150	258	2
1999	410	150	258	2
2000	410	150	258	2
2001	410	1 50	258	2
2002	410	150	258	2
2003	410	150	258	2
2004	410	150	258	2
2005	410	150	258	2
2006	410	150	258	2
2007	41 0	150	25B	2
2008	410	150	258	2
2009	410	150	258	2
2010	410	150	258	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.921IC--CREATED 12/3/83

TABLE O-73
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESILIENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0"	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	158	82	0	59	17
1986	181	97	0	59	" 25
1987	194	104	0	59	31
1988	187	99	0	59	29
1989	192	100	0	59	33
1990	209	110	0	59	40
1991	229	123	0	59	48
1992	262	145	0	59	58
1993	286	160	0	59	67
1994	296	166	0	59	71
1995	322	180	0	59	83
1996	353	203	0	59	92
1997	398	237	0	59	102
1998	425	263	0	59	103
1999	470	313	0	59	98
2000	459	306	0 "	59	94
2001	459	305	0	59	94
2002	457	304	0	59	94
2003	457	303	0	59	94
2004	456	302	0	59	94
2005	455	302	0	59	94
2006	454	301	0	59	94
2007	454	300	0	59	94
2008	453	299	0	59	94
2009	452	299	0	59	94
2010	452	298	0	59	94

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSLIEN
DSET UN.921IC--CREATED 12/3/83

TABLE O-74
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6"
1983	94	88	6
1984	125	119	6
1985	120	114	6
1986	136	130	6
1987	134	128	6.
1988	145	139	6
1989	143	137	"6
1990	154	148	6
1991	170	164	6
1992	166	160	6
1993	170	164	6
1994	170	164	6
1995	171	165	6
1996	175	169	6
1997	194	188	6
1998	206	200	6
1999	233	227	6
2000	225	219	6
2001	221	215	6
2002	217	211	6
2003	213	207	6
2004	210	204	6
2005	207	201	6
2006	204	198	6
2007	201	195	6
200%	198	192	6
2009	195	189	6
2010	192	186	6

SOURCE: VARI ABLES EMGO, EMGOEG, AND EMGOEX
DSET UN.921IC--CREATED 12/3/83

TABLE 0-75
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140
1985	55	7	0	0	62
1986	56	108	0	0	164
1987	44	164	0	0	208
1988	25	39	0	0	64
1989	14	7	0	0	21
19!30	40	23	0	0	63
1991	30	18	0	0	48
1992	55	29	5	25	114
1993	41	75	5	25	146
1994	17	0	12	25	54
1995	38	55	12	25	130
1996	66	110	31	25	2 3 2
1997	83	198	67	25	373
1998	39	145	112	25	321
1999	6	70	130	125	331
2000	0	0	130	125	255
2001	0	0	130	125	255
2002	0	0	130	125	255
2003	0	0	130	125	255
2004	0	0	130	125	255
2005	0	0	130	125	255
2006	0	0	130	125	255
2007	0	0	130	125	255
2008	0	0	130	125	255
2009	0	0	130	125	255
2010	0	0	130	125	255

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.921IC--CREATED 12/3/83

TABLE O-76
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	157	0	0	0	" 157
1987	121	0	0	0	121
1988	91	0	0	0	91
1989	58	0	0	0	58
1990	177	0	0	0	177
1991	179	0	0	0	179
1992	212	0	10	0	222
1993	167	0	10	0	177
1994	60	0	21	0	81
1995	253	0	21	0	274
1996	506	0	93 "	0	599
1997	632	0	237	0	869
1998	286	0	417	0	703
1999	33	0	489	0	522
2000	0	0	489 "	0	489
2001	0	0	489	0	489
2002	0	0	489	0	489
2003	0	0	489	0	489
2004	0	0	489	0	489
2005	0	0	48'3	0	489
2006	0	0	489	0	489
2007	0	0	489	0	489
2008	0	0	489	0	489
2009	0	0	489	0	489
2010	0	0	489	0	489

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET UN.921IC--CREATED 12/3/83

TABLE O-77
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-o	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	21	143	157	321
1987	30	178	121	329
1988	9	55	91	155
1989	2	19	58	79
1990	5	58	177	240
1991	4	44	179	227
1992	35	79	222	336
1993	43	103	177	3 2 3
1994	37	17	81	1 35
1995	46	84	274	404
1996	73	159	599	831
1997	119	254	869	1242
1998	158	163	703	1024
1999	265	66	522	853
2000	255	0	489	744
2001	255	0	489	744
2002	255	0	489	744
2003	255	0	489	744
2004	255	0	489	744
2005	255	0	489	744
2006	255	0	489	744
2007	255	0	489	744
2008	255	0	489	744
2009	255	0	489	744
2010	255	0	489	744

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
D S E T   UN.921IC--CREATED 12/3/83

TABLE O-78
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALE 92 IMPACT CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0.	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	236	21	129	107	0	21
1985	218	2	211	7	0	2
1986	321	21	213	108	0	21
1987	329	30	165	164	0	'30
1988	155	9	116	39	0	9
1989	79	2	72	7	0	2
1990	240	5	217	23	0	5
1991	227	4	209	18	0	4
1992	336	35	282	54	5	30
1993	323	43	223	100	5	38
1994	135	37	110	25	12	25
1995	404	46	324	80	12	34
1996	831	73	696	135	31	42
1997	1 242	119	1019	223	67	52
1998	1024	158	854	170	112	46
1999	853	265	658	195	130	135
2000	744	255	619	125	130	125
2001	744	255'	619	125	130	125
2002	744	255	619	125	130	125
2003	744	255	619	125	130	125
2004	744	255	619	125	130	125
2005	744	255	619	125	130	125
2006	744	255	619	125	130	125
2007	744	255	619	125	130	125
2008	744	255	619	125	130	125
2009	744	255	619	125	130	125
2010	744	255	619	125	130	125

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET UN.921IC--CREATED 12/3/83

TABLE 0-79
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 ANO 92 COMBINED IMPACT CASE

	RESIDENT POPULATION	NoN- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	687	609	-0	0	1296
1982	665	233	0	0	898
1983	652	166	0	0	818
1984	791	186	119	0	1097
1985	756	262	60"	0	1079
1986	845	337	115	0	1 297
1987	910	412	179	0	1501
1988	902	488	58	0	1448
1989	923	593	21	0	1537
1990	1011	699	76	0	1786
1991	1117	854	62	0	2033
1992	1280	1009	129	0	2418
1993	1401	1165	178	0	2744
1994	1478	1320	32	0	2830
1995	1586	1476	98	0	3160
1996	1737	1576	'159	0	3472
1997	1964	1676	254	0	3894
1998	2141	1776	163	0	4080
1999	2431	1776	66	0	4273
2000	2392	1776	0	0	4168
2001	2388	1776	0	0	4164
2002	2384	1776	0	0	4160
2003	2381	1776	0	0	4157
2004	2379	1776	0	0	4155
2005	2378	1776	0	0	4154
2006	2376	1776	0	0	4152
2007	2375	1776	0	0	4151
2008	2373	1776	0	0	4149
2009	2372	1776	0	0	4148
2010	2371	1776	0	0	4147

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET UN.COMIC--CREATED 12/3/83

TABLE O-80
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT POPU- LATION	NATIVE POPU- LATION	NON- NATIVE POPU- LATION	NATIVE MALE POPU- LATION	NATIVE FEMALE POPU- LATION	NON- NATIVE MALE POPU- LATION	NON- NATIVE FEMALE POPU- LATION
1981	687	206	481	123	83	304	177
1982	665	212	454	125	87	286	167
1983	652	217	435	127	90	274	160
1984	791	223	569	130	93	359	209
1985	756	228	528	132	96	334	195
1986	845	234	612	134	99	386	225
1987	910	239	671	136	103	424	247
1988	902	244	658	138	106	415	242
1989	923	250	673	141	109	425	248
1990	1011	255	756	143	112	477	279
1991	1117	260	857	145	115	541	316
1992	1280	265	1014	147	119	641	374
1993	1401	271	1130	149	122	714	416
1994	1478	276	1202	151	125	759	443
1995	1586	281	1304	153	128	824	481
1996	1737	287	1450	155	132	915	534
1997	1964	292	1672	157	135	1056	616
1998	2141	298	1843	160	139	1164	679
1999	2431	304	2127	162	142	1344	784
2000	2392	310	2082	164	146	1315	767
2001	2388	316	2073	166	149	1309	764
2002	2384	322	2062	169	153	1302	760
2003	2381	328	2053	171	157	1297	757
2004	2379	334	2045	174	161	1291	754
2005	2378	341	2037	176	165	1286	751
2006	2376	347	2028	179	169	1281	747
2007	2375	354	2020	182	173	1276	744
2008	2373	361	2012	184	177	1271	741
2009	2372	368	2004	187	181	1 266	738
2010	2371	376	1996	190	185	1260	735

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET UN.COMIC--CREATED 12/3/83

TABLE O-81
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINEI) IMPACT" CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)	
1981	687	47	168	459	13	
1982	665	50	160	442	14	
1983	652	52	155	431	15	
1984	791	63	186	525	17	
1985	756	62	177	499	18	
1986	845	69	198	558	20	
1987	910	75	213	601	22	
1988	902	75	211	592	24	
1989	923	77	217	604	25	
1990	1011	83	238	663	27	
1991	1117	90	263	734	30	
1992	1280	101	302	844	33	
1993	1401	110	330	926	36	
1994	1478	115	349	977	38	
1995	1586	122	374	1049	40	
1996	1737	132	410	1151	43	
1997	1964	148	463	1307	47	
1998	2141	159	504	1427	5	O
1999	2431	179	571	1627	55	
2000	2392	176	562	1598	55	
2001	2388	176	562	1593	56	
2002	2384	177	562	1 588	57	
2003	2381	177	562	1584	58	
2004	2379	177	562	1580	60	
2005	2378	178	563	1577	61	
2006	2376	178	563	1574	62	
2007	2375	178	563	1570	63	
2008	2373	179	564	1567	64	
2009	2312	179	564	1565	65	
2010	2371	180	564	1 561	66	

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET UN.COMIC--CREATED 12/3/83

TABLE 0-82
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION
1981	687	-37	8	-46
1982	665	-22	7	-28
1983	652	-13	6	-20
1984	791	140	6	133
1985	756	-35	7	-41
1986	845	89	6	83
1987	910	65	7	58
1988	902	-9	7	-15
1989	923	21	7	15
1990	1011	88	7	81
1991	1117	106	7	99
1992	1280	163	7	156
1993	1401	121	7	114
1994	1478	77	8	70
1995	1586	108	8	100
1996	1737	151	8	143
1997	1964	228	8	220
1998	2141	176	9	167
1999	2431	290	9	281
2000	2392	-40	10	-50
2001	2388	-3	10	-13
2002	2384	-4	10	-14
2003	2381	-2	10	-13
2004	2379	-2	10	-12
2005	2378	-2	10	-12
2006	2376	-2	11	-12
2007	2375	-1	11	-12
2008	2373	-1	11	-12
2009	2372	-1	11	-12
2010	2371	-1	11	-12

SOURCE: VARIABLES PO, CHPO, NTIC, AND IM
DSET UN.COMIC--CREATED 12/3/83

TABLE O-83
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED **IMPACT** CASE

	RESIDENT EMPLOYMENT	NoN-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	368	609	-o	0	977
1982	352	233	0	0	585
1983	341	166	0	0	507
1984	426	186	119	0	731
1985	401	262	60"	0	724
1986	454	337	115	0	906
1987	492	412	179	o	1083
1988	484	488	58	0	1031
1989	4'35	593	21	0	1108
1990	547	699	76	0	1321
1991	610	854	62	0	1526
1992	709	1009	129	0	1847
1993	782	1165	178	0	2125
1994	827	1320	3.2	0	2179
1995	892	1476	98	0	2466
1996	983	1576	159	0	2718
1997	1122	1676	254	0	3052
1998	1230	1776	163	0	316!3
1999	1408	1776	66	0	3250
2000	1381	1776	0	0	3157
2001	1376	1776	0	0	3152
2002	1370	1776	0	0	3146
2003	1366	1776	0	0	3142
2004	1362	1776	0	0	3138
2005	135B	1776	0	0	3134
2006	1354	1776	0	0	3130
2007	1350	1776	0	0	31¨26-
2008	1347	1776	0	0	3123
2009	1343	1776	0	0	3119
2010	1339	1776	0	0	3115

SOURCE: VARIABLES **EMRETO, EMENNOPJ, EMENPJ, EMML,** AND EMTO
OSET **UN.COMIC--CREATED** 12/3/83

TABLE O-84
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESILIENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	368	110	167	91	0
1982	352	110	143	99	0
1983	341	110	137	94	0
1984	426	116	164	125	21
1985	401	122	158	120	2
1986	454	128	177	133	16
1987	492	134	194	134	30
1988	484	140	188	146	11
1989	495	155	193	144	3
1990	547	170	212	156	8
1991	610	200	232	172	6
1992	709	230	268	170	41
1993	782	260	295	175	52
1994	827	290	306	177	55
1995	892	320	332	177	64
1996	983	350	362	180	91
1997	1122	380	406.	199	137
1998	1230	410	434	210	176
1999	1408	410	478	237	283
2000	1381	410	468	230	273
2001	1376	410	467	226	273
2002	1370	410	466	221	273
2003	1366	410	465	218	273
2004	1362	410	464	215	273
2005	1358	410	464	212	273
2006	1354	410	463	208	273
2007	1350	410	462	205	273
2008	1347	410	461	202	273
2009	1343	410	461	199	273
2010	1339	410	460	196	273

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET UN.COMIC--CREATED 12/3/83

TABLE O-85
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	110	50	58	2
1982	110	50	58	2
1983	110	50	58	2
1984	116	52	62	2
1985	122	54	66	2
1986	128	56	70	2
1987	134	58	74	2
1988	140	60	78	2
1989	155	65	88	2
1990	170	70	98	2
1991	200	80	118	2
1992	230	90	138	2
1993	260	100	158	2
1994	290	110	178	2
1995	320	120	198	2
1996	350	130	218	2
1997	380	140	238	2
1998	410	150	258	2
1999	410	150	258	2
2000	410	150	258	2
2001	410	150	258	2
2002	410	150	258	2
2003	410	150	258	2
2004	410	150	258	2
2005	410	150	258	2
2006	410	150	258	2
2007	410	150	258	2
2008	410	150	258	2
2009	410	150	258	2
2010	410	150	258	2

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET UN.COMIC--CREATED 12/3/83

TABLE O-86
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	167	76	0	59	32
1982	143	72	0	59	12
1983	137	70	0	59	9
1984	164	89	0	59	16
1985	158	82	0	59	17
1986	177	95	0	59	24
1987	194	104	0	59	31
1988	188	100	0	59	29
1989	193	101	0	59	33
1990	212	112	0	59	41
1991	232	125	0	59	49
1992	268	149	0	59	60
1993	295	166	0	59	71
1994	306	175	0	59	72
1995	332	189	0	59	83
1996	362	211	0	59	92
1997	406	245	0	59	102
1998	434	272	0	59	103
1999	478	321	0	59	98
2000	468	315	0	59	94
2001	467	314	0	59	94
2002	466	313	0	59	94
2003	465	312	0	59	94
2004	464	311	0	59	94
2005	464	310	0	59	94
2006	463	309	0	59	94
2007	462	309	0	59	94
2008	461	308	0	59	94
2009	461	307	0	59	94
2010	460	306	0	59	94

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET UN.COMIC--CREATED 12/3/83

TABLE O-87
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	91	85	6
1982	99	93	6
1983	94	88	6
1984	125	119	6
1985	120	114	6
1986	133	127	6
1987	134	128	6
1988	146	140	6
1989	144	138	6
1990	156	150	6
1991	172	166	6
1992	170	164	6
1993	175	169	6
1994	177	171	6
1995	177	171	6
1996	180	174	6
1997	199	193	6
1998	210	204	6
1999	237	231	6
2000	230	224	6
2001	226	220	6
2002	221	215	6
2003	218	212	6
2004	215	209	6
2005	212	206	6
2006	208	202	6
2007	205	199	6
2008	202	196	6
2009	199	193	6
2010	196	190	6

SOURCE: VARIABLES EMGO, EMGOEG, ANᵥ EMGOEX
DSET UN.COMIC--CREATED 12/3/83

TABLE O-88
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	33	107	0	0	140
1985	55	7	0	0	62
1986	51	80	0	0	131
1987	39	170	0	0	209
1988	22	47	0	0	69
1989	10	14	0	0	24
1990	43	41	0	0	84
1991	36	32	0	0	68
1992	77	63	5	25	170
1993	61	139	5	25	230
1994	24	10	13	40	87
1995	45	64	13	40	162
1996	66	110	33	41	250
1997	83	198	69	41	391
1998	39	145	114	41	339
1999	6	70	132	141	349
2000	0	0	132	141	273
2001	0	0	132	141	273
2002	0	0	132	141	273
2003	0	0	132	141	273
2004	0	0	132	141	273
2005	0	0	132	141	273
2006	0	0	132	141	273
2007	0	0	132	141	273
2008	0	0	132	141	273
2009	0	0	132	141	273
2010	0	0	132	141	273

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET UN.COMIC--CREATED 12/3/83

TABLE O-89
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 ANO 92 COMBINED IMPACT CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0,
1984	96	0	0	0	96
1985	156	0	0	0	156
1986	147	0	0	0	147
1987	111	cl	0	0	111
1988	93	cl	0	0	93
1989	54	0	0	0	54
1990	223	0	0	0	223
1991	222	0	10	0	232
1992	338	0	10	0	348
1993	277	0	21	0	298
1994	103	0	33	0	136
1995	293	0	105	0	398
1996	506	0	261	0	767
1997	632	0	441	0	1073
1998	286	0	513	0	799
1999	33	0	513	0	546
2000	0	0	513	0	513
2001	0	0	513	0	513
2002	0	0	513	0	513
2003	0	0	513	0	513
2004	0	0	513	0	513
2005	0	0	513	0	513
2006	0	0	513	0	513
2007	0	0	513	0	513
2008	0	0	513	0	513
2009	0	0	513	0	513
2010	0	0	513	0	51"3

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET UN.COMIC--CREATED 12/3/83

· TABLE O-90
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	-0	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	21	119	96	236
1985	2	60	156	218
1986	16	115	147	278
1987	30	179	111	320
1988	11	58	93	162
1989	3	21	54	78
1990	8	76	223	307
1991	6	62	232	300
1992	41	129	348	518
1993	52	178	298	528
19!34	55	32	136	223
1995	64	98	398	560
1996	91	159	767	1017
1997	137	254	1073	1464
19!38	176	163	799	1138
1999	283	66	546	895
2000	273	0	513	786
2001	273	0	513	786
2002	273	0	513	786
2003	273	0	513	786
2004	273	0	513	786
2005	273	0	513	786
2006	273	0	513	786
2007	273	0	513	786
2008	273	0	513	786
2009	273	0	513	786
2010	273	0	513	786

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET UN.COMIC--CREATED 12/3/83

TABLE O-9
RURAL ALASKA MODEL PROJECTIONS
UNALASKA
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	236	21	129	107	0	21
1985	218	2	211	7	0	2
1986	278	16	198	80	0	16
1987	320	30	150	170	0	30
1988	162	11	115	47	0	11
1989	78	3	64	14	0	3
1990	307	8	266	41	0	8
1991	300	6	268	32	0	6
1992	518	41	430	88	5	36
1993	528	52	364	164	5	47
1994	223	55	173	50	13	42
1995	560	64	456	104	13	51
1996	1017	91	866	151	33	58
1997	1464	137	1225	239	69	68
1998	1138	176	952	186	114	62
1999	895	283	684	211	132	151
2000	786	273	645	141	132	141
2001	786	273	645	141	132	141
2002	786	273	645	141	132	141
2003	786	273	645	141	132	141
2004	786	273	645	141	132	141
2005	786	273	645	141	132	141
2006	786	273	645	141	132	141
2007	786	273	645	141	132	141
2008	786	273	645	141	132	141
2009	786	273	645	141	132	141
2010	786	273	645	141	132	141

SoURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSE4 UN.COMIC--CREATED 12/3/83

TABLE O-92
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
TOTAL POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	1296	1296	0	0.00
1982	898	898	0	0.00
1983	818	818	0	0.00
1984	1097	1097	0	0.00
1985	1079	1079	0	0.00
1986	1177	1215	37	3.17
1987	1477	1487	10	0.66
1988	1413	1429	16	1.15
1989	1506	1520	14	0.91
1990	1679	1718	39	2.32
1991	1953	1982	29	1.48
1992	2158	2234	77	3.55
1993	2396	2513	117	4.86
1994	2639	2709	70	2.64
1995	2982	3048	67	2.23
1996	3314	3365	51	1.53
1997	3737	3788	50	1.35
1998	3924	3974	50	1.28
1999	4117	4167	50	1.22
2000	4011	4061	50	1.24
2001	4009	405$	49	1.23
2002	4005	4055	49	1.24
2003	4003	4052	49	1.23
2004	4002	4051	49	1.24
2005	4000	4050	49	1.24
2006	3999	4048	49	1.22
2007	3998	4047	49	1.23
2008	3997	4046	49	1.22
2009	3997	4045	49	1.21
2010	3996	4045	48	1.21

VARIABLE: POTO
SOURCE': DSETS UN.89MBC--CREATED 12/2/83 AND
UN.89IIC--CREATED 12/2/83

TABLE O-93
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	687	687	0	0.00
1982	665	665	0	0.00
1983	652	652	0	0.00
1984	791	791	0	0.00
1985	756	756	0	0.00
1986	788	808	19	2.45
1987	901	904	4	0.43
1988	888	895	7	0.77
1989	910	916	6	0.69
1990	974	990	16	1.62
1991	1089	1101	12	1.07
1992	1139	1166	27	2.39
1993	1223	1267	44	3.59
1994	1313	1368	55	4.15
1995	1427	1479	52	3.63
1996	1579	1630	51	3.20
1997	1808	1858	50	2.78
1998	1985	2035	50	2.52
19'39	2275	2325	50	2.21
2000	2235	2285	'50	2.23
2001	2233	2282	49	2.22
2002	2229	2279	49	2.22
2003	2227	2276	49	2.22
2004	2226	2275	49	2.22
2005	2224	2274	49	2.22
2006	2223	2272	49	2.20
2007	2222	2271	49	2.21
2008	2221	2270	49	2.19
2009	2221	2269	49	2.19
2010	2220	2269	48	2.18

VARIABLE: PO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.891IC--CREATED 12/2/83

TABLE 0-94
RURAL ALASKA MODEL IMPACT PROJECTIONS
SCHOOL AGE POPULATION
/   UNALASKA

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	168	168	0	0.00
1982	160	160	0	0.00
1983	155	155	0	0.00
1984	186	186	0	0.00
1985	177	177	0	0.00
1986	184	189	4	2.41
1987	211	212	1	0.41
1988	208	210	2	0.76
1989	214	216	1	0.67
1990	230	233	4	1.58
1991	257	260	3	1.03
1992	269	275	6	2.31
1993	290	300	10	3.47
1994	311	324	12	4.01
1995	338	350	12	3.51
1996	374	385	12	3.09
1997	427	439	11	2.69
1998	468	480	11	2.44
1999	535	547	11	2.14
2000	527	538	11	2.16
2001	527	538	11	2.15
2002	527	538	11	2.15
2003	527	538	11	2.14
2004	527	538	11	2.14
2005	528	539	11	2.14
2006	528	539	11	2.11
2007	528	540	11	2.13
2008	529	540	11	2.10
2009	529	540	11	2.10
2010	530	541	11	2.09

VARIABLE: POSL
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.891IC--CREATED 12/2/83

TABLE 0-95
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT EMPLOYMENT

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	368	368	0	0.00
1982	352	352	0	0..00
1983	341	341	0	0.00
1984	426	426	0	0.00
1985	401	401	0	0.00
1986	419	431	12	2.86
1987	486	489	2	0.51
1988	476	480	4	0.90
1989	487	490	4	0.80
1990	524	533	10	1.88
1991	593	600	7	1.22
1992	621	638	17	2.73
1993	671	698	27	4.09
1994	724	758	34	4.70
1995	793	825	32	4.09
1996	885	916	32	3.57
1997	1025	1056	31	3.06
1998	1133	1164	31	2.75
1999	1311	1342	31	2.39
2000	1284	1315	31	2.43
2001	1279	1310	31	2.43
2002	1274	1305	31	2.43
2003	1270	1301	31	2.43
2004	1266	1297	31	2.44
2005	1262	1293	31	2.45
2006	1259	1289	31	2.43
2007	1255	1286	31	2.44
2008	1252	1282	30	2.43
2009	1248	1279	30	2.43
2010	1245	1275	30	2.43

VARIABLE: EMRETO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.891IC--CREATED 12/2/83

TABLE O-96
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT SUPPORT EMPLOYMENT

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	167	167	0	0.00
1982	143	143	0	0.00
1983	137	137	0	0.00
1984	164	164	0	0.00
1985	158	158	0	0.00
1986	165	169	4	2.42
1987	192	193	1	0.49
1988	184	186	2	0.84
1989	190	191	1	0.73
1990	203	206	4	1.81
1991	225	228	3	1.20
1992	239	246	7	2.84
1993	258	268	11	4.16
1994	277	287	10	3.58
1995	304	313	10	3.13
1996	335	344	9	2.58
1997	379	388	9	2.27
1998	407	415	9	2.11
1999	451	460	9	1.91
2000	441	450	9	1.95
2001	440	449	9	1.94
2002	439	448	9	1.94
2003	439	447	9	1.94
2004	438	446	9	1.95
2005	437	446	9	1.95
2006	436	445	8	1.94
2007	436	444	9	1.95
2008	435	444	8	1.94
2009	434	443	8	1.94
2010	434	442	8	1.94

VARIABLE: EMSU
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.891IC--CREATED 12/2/83

TABLE O-97
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT GOVERNMENT EMPLOYMENT

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	91	91	0	0.00
1982	99	99	0	0.00
1983	94	94	0	0.00
1984	125	125	0	0.00
1985	120	120	0	0:00
1986	124	127	3	2.36
1987	133	133	1	0.39
1988	144	145	1	0.74
1989	142	143	1	0.62
1990	151	153	2	1.55
1991	168	169	2	1.03
1992	152	155	3	2.30
1993	153	158	5	3.44
1994	158	164	6	3.99
1995	160	165	6	3.50
1996	164	169	5	3.09
1997	183	188	5	2.69
1998	195	200	5	2.44
1999	222	227	5	2.15
2000	215	220	5	2.15
2001	212	216	5	2.13
2002	208	212	4	2.12
2003	204	208	4 "	2.14
2004	201	206	4	2.15
2005	198	203	4	2.19
2006	195	199	4	2.10
2007	192	196	4	2.17
2008	190	194	4	2.09
2009	187	191	4	2.09
2010	184	188	4	2.0$

VARIABLE: EMGO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.891IC--CREATED 12/2/83

TABLE O-98
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
TOTAL POPULATION
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	1296	1296	0	0.00
1982	898	898	0	0.00
1983	818	818	0	0.00
1984	1097	1097	0	0.00
1985	1079	1079	0	0.00
1986	1264	1344	80	6.31
1987	1485	1499	14	0.95
1988	1420	1439	19	1.35
1989	1513	1530	17	1.12
1990	1686	1754	69	4.06
1991	1953	2004	51	2.62
1992	2158	2343	186	8.60
1993	2396	2632	236	9.84
1994	2639	2760	121	4.59
1995	2982	3094	112	3.76
1996	3314	3421	107	3.23
1997	3737	3844	107	2.85
1998	3924	4030	106	2.70
1999	4117	4223	106	2.58
2000	4011	4117	106	2.64
2001	4009	4114	106	2.63
2002	4005	4110	104	2.61
2003	4003	4107	105	2.62
2004	4002	4106	104	2.60
2005	4000	4104	104	2.60
2006	3999	4102	103	2.59
2007	3998	4102	104	2.59
2008	3997	4101	103	2.58
2009	3997	4100	103	2.57
2010	3996	4099	102	2.56

VARIABLE: POTO
SOURCE: DSETS UN.92MBC--CREATED 12/2/83 AND
UN.921IC--CREATED 12/2/83

TABLE O-99
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT POPULATION
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	687	687	0	0.00
1982	665	665	0	0.00
1983	652	652	0	0.00
1984	791	791	0	0.00
1985	756	756	0	0.00
1986	830	864	34	4.11
1987	903	909	6	0.61
1988	889	896	7	0.75
1989	911	917	- 7	0.73
1990	975	997	22	2.29
1991	1089	1106	17	1.53
1992	1139	1256	117	10.26
1993	1223	1364	141	11.49
1994	1313	1423	110	8.39
1995	1427	1 534	107	7.48
1996	1579	1686	107	6.76
1997	1808	1914	106	5.87
1998	1985	2091	106	5.32
1999	2275	2381	106	4.66
2000	2235	2341	106	4.74
2001	2233	2338	106	4.73
2002	2229	2334	104	4.69
2003	2227	2331	105	4.70
2004	2226	2330	104	4.68
2005	2224	2328	104	4.68
2006	2223	2326	103	4.65
2007	2222	2326	104	4.66
2008	2221	2325	103	4.64
2009	2221	2324	103	4.63
2010	2220	2323	102	4.61

VARIABLE: PO
SOURCE: D-SETS UN.92MBC--CREATED 12/2/83 AND
UN.92IIC--CREATED 12/2/83

TABLE 0-100
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
SCHOOL-AGE POPULATION
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	168	168	0	0.00
1982	160	160	0	0.00
1983	155	155	0	0.00
1984	186	186	0	0.00
1985	177	177	0	0.00
1986	194	202	8	4.04
1987	211	212	1	0.59
1988	209	210	2	0.73
1989	214	216	2	0.71
1990	230	235	5	2.23
1991	257	261	4	1.48
1992	269	296	27	9.96
1993	290	322	32	11.11
1994	311	336	25	8.08
1995	338	363	24	7.21
1996	374	398	24	6.53
1997	427	451	24	5.68
1998	468	492	24	5.15
1999	535	560	24	4.52
2000	527	551	24	4.59
2001	527	551	24	4.58
2002	527	551	24	4.53
2003	527	551	24	4.54
2004	527	551	24	4.52
2005	528	551	24	4.51
2006	528	552	24	4.48
2007	528	552	24	4.48
2008	529	552	24	4.46
2009	529	553	24	4.44
2010	530	553	23	4.41

VARIABLE: POSL
SOURCE: DSETS UN.92MBC--CREATED 12/2/83 AND
UN.921IC--CREATED 12/2/83

TABLE 0-101
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT EMPLOYMENT
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	368	368	0	0.00
1982	352	352	0	0.00
1983	341	341	0	0.00
1984	426	426	0	0.00
1985	401	401	0	0.00
1986	445	466	21	4.77
1987	488	491	4	0.72
1988	476	480	4	0.88
1989	487	491	4	0.85
1990	524	538	14	2.67
1991	593	603	10	1.75
1992	621	694	73	11.73
1993	671	759	88	13.08
1994	724	793	69	9.51
1995	793	859	67	8.41
1996	885	951	67	7.54
1997	1025	1091	66	6.47
1998	1133	1199	66	5.82
1999	1311	1377	66	5.05
2000	1284	1350	66	5.15
2001	1279	1345	66	5.15
2002	1274	1339	65	5.13
2003	1270	1335	65	5.15
2004	1266	1331	65	5.14
2005	1262	1327	65	5.15
2006	1259	1323	65	5.14
2007	1255	1320	65	5.15
2008	1252	1316	64	5.14
2009	1248	1312	64	5.14
2010	1245	1309	64	5.14

VARIABLE: EMRETO
SOURCE: DSETS UN.92MBC--CREATED 12/2/83 AND
UN.92IIC--CREATED 12/2/83

TABLE 0-102
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	167	167	0	0.00
1982	143	143	0	0.00
1983	137	137	0	0.00
1984	164	164	0	0.00
1985	158	158	0	0.00
1986	174	181	8	4.42
1987	192	194	1	0.69
1988	185	187	2	0.91
1989	190	192	2	0.83
1990	203	209	6	2.85
1991	225	229	4	1.92
1992	239	262	23	9.48
1993	258	286	28	10.88
1994	277	296	19	6.93
1995	304	322	18	6.06
1996	335	353	18	5.45
1997	379	398	18	4.80
1998	407	425	18	4.46
1999	451	470	18	4.03
2000	441	459	18	4.12
2001	440	459	18	4.12
2002	439	457	18	4.10
2003	439	457	18	4.12
2004	438	456	18	4.11
2005	437	455	18	4.11
2006	436	454	18	4.10
2007	436	454	18	4.11
2008	435	453	18	4.11
2009	434	452	18	4.10
2010	434	452	18	4.10

VARIABLE: EMSU
SOURCE: DSETS UN.92MBC—CREATED 12/2/83 AND
UN.921IC—CREATED 12/2/83

TABLE C)-103
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT GOVERNMENT EMPLOYMENT
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	91	91	0	0.00
1982	99	99	.0	0.00
1983	94	94	0	0.00
1984	125	125	0	0.00
1985	120	120	0	0 . 0 0
1986	130	136	5	3.94
1987	133	134	1	0.59
1988	144	145	1	0.72
1989	142	143	1	0.65
1990	151	154	3	2.19
1991	168	170	2	1.48
1992	152	166	15	9.81
1993	153	170	17	11.04
1994	158	170	13	8.06
1995	160	171	11	7.20
1996	164	175	11	6.52
1997	183	194	10	5.68
1998	195	206	10	5.16
1999	222	233	10	4.53
2000	215	225	10	4.60
2001	212	221	10	4.59
2002	208	217	9	4.50
2003	204	213	9	4.56
2004	201	210	9	4.51
2005	198	207	9	4.54
2006	195	204	9	4.48
2007"	192	201	9	4.55
200$	190	198	9	4.50
2009	187	195	8	4.4$
2010	184	192	8	4.43

VARIABLE: EMGO
SOURCE: DSETS UN.92MBC--CREATED 12/2/83 AND
UN.921IC--CREATED 12/2/83

TABLE O-104
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
TOTAL POPULATION
COMPARISON OF COMBINED BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	1296	1296	0	0.00
1982	898	898	0	0.00
1983	818	818	0	0.00
1984	1097	1097	0	0.00
1985	107!3	1079	0	0.00
1986	1177	1297	119	10.15
1987	1477	1501	24	1.64
1988	1413	1448	35	2.50
1989	1506	1537	31	2.04
1990	1679	1786	107	6.35
1991	1953	2033	80	4.07
1992	2158	2418	260	12.06
1993	2396	2744	348	14.52
1994	2639	2830	191	7.24
1995	2982	3160	179	5.99
1996	3314	3472	158	4.76
1997	3737	3894	157	4.20
1998	3924	4080	156	3.98
1999	4117	4273	156	3.80
2000	4011	4168	156	3.89
2001	4009	4164	156	3.88
2002	4005	4160	155	3.86
2003	4003	4157	155	3.86
2004	4002	4155	154	3.85
2005	4000	4154	154	3.84
2006	3999	4152	153	3.82
2007	3998	4151	153	3.82
2008	3997	4149	152	3.80
2009	3997	4148	152	3.79
2010	3996	4147	151	3.77

VARIABLE: POTO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.COMIC--CREATED 12/2/83

TABLE 0-105
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT POPULATION
COMPARISON OF COMBINED BASE AND IMPACT CASES .

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	687	687	0	0.00
1982	665	665	0	0.00
1983	652	652	0	0.00
1984	791	791	0	0.00
1985	756	756	0	0.00
1986	788	845	57	7.25
1987	901	910	10	1.08
1988	888	902	13	1.51
1989	910	923	13	1.42
1990	974	1011	37	3.80
1991	1089	1117	28	2.55
1992	1139	1280	141	12.40
1993	1223	1401	178	14.54
1994	1313	1478	165	12.55
1995	1427	1586	159	11.12
1996	1579	1737	157	9.97
1997	1808	1964	156	8.65
1998	1985	2141	156	7.84
199!3	2275	2431	156	6.86
2000	2235	2392	156	6.98
2001	2233	2388	156	6.97
2002	2229	2384	155	6.93
2003	2227	2381	155	6.94
2004	2226	2379	154	6.91
2005	2224	2378	154	6.90
2006	2223	2376	153	6.88
2007	2222	2375	153	6.87
2008	2221	2373	152	6.84
2009	2221	2372	152	6.82
2010	2220	2371	151	6.79

VARIABLE: PO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.COMIC--CREATED 12/2/83

TABLE 0-106
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
SCHOOL-AGE POPULATION
COMPARISON OF COMBINED BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	168	168	0	0.00
1982	160	160	0	0.00
1983	155	155	0	0.00
1984	186	186	0	0.00
1985	177	177	0	0.00
1986	184	198	13	7.12
1987	211	213	2	1.03
1988	208	211	3	1.47
1989	214	217	3	1.38
1990	230	238	8	3.70
1991	257	263	6	2.47
1992	269	302	32	12.03
1993	290	330	41	14.06
1994	311	349	38	12.10
1995	338	374	36	10.72
1996	374	410	36	9.62
1997	427	463	36	8.37
1998	468	504	36	7.59
1999	535	571	36	6.66
2000	527	562	36	6.77
2001	527	562	36	6.74
2002	527	562	35	6.71
2003	527	562	35	6.70
2004	527	562	35	6.67
2005	528	563	35	6.65
2006	528	563	35	6.62
2007	528	563	35	6.60
2008	529	564	35	6.57
2009	529	564	35	6.54
2010	530	564	34	6.50

VARIABLE: POSL
SOURCE: DSETS UN.89MBC—CREATED 12/2/83 AND
UN.COMIC—CREATED 12/2/83

TABLE O-107
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT EMPLOYMENT
COMPARISON OF COMBINED BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	368	368	0	0.00
1982	352	352	0	0.00
1983	341	341	0	0.00
1984	426	426	0	0.00
1985	401	401	0	0.00
1986	419	454	36	8.48
1987	486	492	6	1.27
1988	476	484	8	1.76
1989	487	495	8	1.66
1990	524	547	23	4.41
1991	593	610	17	2.92
1992	621	709	88	14.17
1993	671	782	111	16.55
1994	724	827	103	14.21
1995	793	892	99	12.50
1996	885	983	98	11.11
1997	1025	1122	98	9.53
1998	1133	1230	97	8.58
1999	1311	1408	98	7.44
2000	1284	1381	97	7*59
2001	1279	1376	97	7.59
2002	1274	1370	97	7.58
2003	1270	1366	96	7.60
2004	1266	1362	96	7.59
2005	1262	1358	96	7.59
2006	1259	1354	95	7.58
2007	1255	1350	95	7.59
2008	1252	1347	95	7.58
2009	1248	1343	95	7.58
2010	1245	1339	94	7.57

VARIABLE: EMRETO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.COMIC--CREATED 12/2183

TABLE O-108
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF COMBINED BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	167	167	0	0.00
1982	143	143	0	0.00
1983	137	137	0	0.00
1984	164	164	0	0.00
1985	158	158	0	0.00
1986	165	177	12	7.42
1987	192	194	2	1.20
1988	184	188	3	1.74
1989	190	193	3	1.56
1990	203	212	9	4.58
1991	225	232	7	3.09
1992	239	268	29	12.14
1993	258	295	38	14.65
1994	277	306	29	10.51
1995	304	332	28	9.19
1996	335	362	27	8.04
1997	379	406	27	7.07
1998	407	434	27	6.57
1999	451	478	27	5.94
2000	441	468	27	6.08
2001	440	467	27	6.08
2002	439	466	27	6.06
2003	439	465	27	6.07
2004	438	464	27	6.07
2005	437	464	27	6.07
2006	436	463	26	6.06
2007	436	462	26	6.06
2008	435	461	26	6.05
2009	434	461	26	6.05
2010	434	460	26	6.04

VARIABLE: EMSU
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.COMIC--CREATED 12/2/83

TABLE O-109
RURAL ALASKA MODEL IMPACT PROJECTIONS
UNALASKA
RESIDENT GOVERNMENT EMPLOYMENT
COMPARISON OF COMBINED BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	91	91	0	0.00
1982	99	99	0	0.00
1983	94	94	0	0.00
1984	125	125	0	0.00
1985	120	120	0	0.00
1986	124	133	9	6.93
1987	133	134	1	1.04
1988	144	146	2	1.44
1989	142	144	2	1.32
1990	151	156	5	3.63
1991	168	172	4	2.47
1992	152	170	18	11.89
1993	153	175	21	13.96
1994	158	177	19	12.06
1995	160	177	17	10.70
1996	164	180	16	9.61
1997	183	199	15	8.37
1998	195	210	15	7.60
1999	222	237	15	6.68
2000	215	230	15	6.78
2001	212	226	14	6.77
2002	208	221	14	6.69
2003	204	218	14	6.77
2004	201	215	13	6.71
2005	198	212	13	6.73
2006	195	208	13	6.67
2007"	192	205	13	6.69
2008	190	202	13	6.63
2009	187	199	12	6.61
2010	184	196	12	6.54

VARIABLE: EMGO
SOURCE: DSETS UN.89MBC--CREATED 12/2/83 AND
UN.COMIC--CREATED 12/2/83

TABLE O-110
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
RESIDENT POPULATION
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	687	687	687
1982	665	665	665
1983	652	652	652
1984	707	791	791
1985	732	756	780
1986	758	788	848
1987	764	901	1030
1988	822	888	1109
1989	844	910	1183
1990	878	974	1297
1991	912	108!3	1552
1992	888	1139	1709
1993	894	1223	1895
1994	907	1313	2090
1995	913	1427	2292
1996	911	1579	2541
1997	912	1808	3077
1998	911	1985	3564
1 999	915	2275	4383
2000	918	2235	4618
2001	920	2233	4608
2002	921	2229	4595
2003	924	2227	4585
2004	926	2226	4576
2005	929	2224	4568
2006	932	2223	4559
2007	935	2222	4551
2008	938	2221	4544
2009	941	2221	4537
2010	944	2220	4529

SOURCE: VARIABLE PO, STUDY CASE DSET UN.89MBC,
LOW AND HIGH CASE DSETS UN.89LBC AND UN.89HBC

TABLE O-111
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
SCHOOL-AGE POPULATION
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUNPTIONS
1981	168	168	168
1982	160	160	160
1983	155	155	155
1984	166	186 " "	186
1985	172	177	183
1986	178	184	198
1987	179	211	240
1988	193	208	259
1989	199	214	276
1990	208	230	304
1991	216	257	363
1992	212	269	400
1993	214	290 .	443
1994	218	311	489
1995	220	338	536
1996	221	374	594
1997	222	427	717
1998	223	4 6 8	829
1999	224	535	1018
2000	226	527	1072
2001	227	527	1070
2002	228	527	1067
2003	229	527	1066
2004	230	527	1064
2005	232	528	1063
2006	233	528	1062
2007	234	528	1060
2008	236	529	1059
2009	237	529	1058
2010	238	530	1057

e

SOURCE: VARIABLE POSL, STUDY CASE DSET UN.89MBC,
LOW ANO HIGH CASE DSETS UN.89LBC ANO UN.89HBC

TABLE 0-112
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
RESIDENT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES.

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	368	368	368
1982	352	352	352
1983	341	341	341
1984	373	426	426
1985	386	401	416
1986	400	419	456
1987	401	486	567
1988	435	476	613
1989	446	487	657
1990	464	524	725
1991	482	593	882
1992	464	621	977
1993	466	671	1090
1994	471	724	1209
1995	472	793	1333
1996	468	885	1485
1997	465	1025	1816
1998	462	1133	2118
1999	462	1311	2626
2000	461	1284	2771
2001	459	1279	2762
2002	458	1274	2751
2003	456	1270	2742
2004	455	1266	2733
2005	454	1262	2725
2006	453	1259	2717
2007	452	1255	2709
2008	450	1252	2701
2009	449	1248	2694
20-1 0	448	1245	2686

SOURCE: VARIABLE EMRETO, STUDY CASE DSET N.89MBC,
LOW AND HIGH CASE DSETS UN.89LBC AND UN.89HBC

TABLE O-113
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
RESIDENT BASIC EMPLOYMENT
COMPARISON OF LOW, MEDIUM, ANO HIGH
SALE 89 8ASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	110	110	110
1982	110	110	110
1983	110	110	110
1984	116	116	116
1985	122	122	122
1986	128	128	140
1987	134	134	170
1988	140	140	200
1989	146	155	230
1990	152	170	260
1991	158	200	335
1992	164	230	410
1993	170	260	485
1994	176	290	560
1995	182	320	635
1996	185	350	710
1997	185	3 8 0	860
1998	185	410	1010
1999	185	410	1210
2000	185	410	1310
2001	185	410	1310
2002	185	410	1310
2003	185	410	1310
2004	185	410	1310
2005	185	410	1310
2006	185	410	1310
2007	185	410	1310
2008	185	410	1310
2009	185	410	1310
2010	185	410	1310

SOURCE: VARIABLEEMBA, STUDY CASE DSET UN.89MBC,
LOW ANO HIGH CASE DSETS UN.89LBC AND UN.89HBC

TABLE O-114
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	167	167	167
1982	143	143	143
1983	137	137	137
1984	145	164	164
1985	148	158	169
1986	152	165	181
1987	153	192	221
1988	161	184	229
1989	167	190	244
1990	175	203	266
1991	183	225	310
1992	181	239	342
1993	182	258	371
1994	184	277	401
1995	185	304	437
1996	185	335	482
1997	185	379	572
1998	184	407	645
1999	184	451	769
2000	184	441	806
2001	184	440	805
2002	183	439	803
2003	183	439	801
2004	183	438	799
2005	183	437	798
2006	182	436	796
2007	182	436	794
200$	182	435	793
2009	182	434	791
2010	181	434	790

SOURCE: VARIABLE EMSU, STUDY CASE DSET UN.89MBC,
LOW AND HIGH CASE DSETS UN.89LBC AND UN.89HBC

TABLE O-115
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: UNALASKA
RESIDENT GOVERNMENT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	91	91	91
1982	99	99	99
1983	94	94	94
1984	112	125	125
1985	116	120	123
1986	120	124	133
1987	113	133	151
1988	134	144	178
1989	132	142	183
1990	136	151	199
1991	141	168	236
1992	120	152	224
1993	114	153	234
1994	111	158	247
1995	104	160	253
1996	97	164	261
1997	96	183	308
1998	93	195	346
1999	93	222	423
2000	92	215	438
2001	91	212	430
2002	89	208	421
2003	88	204	414
2004	87	201	407
2005	86	198	401
2006	85	195	394
2007	84	192	388
2008	84	190	381
2009	83	187	375
2010	82	184	369

SOURCE: VARIABLE EMGO, STUDY CASE DSET UN.89MBC,
LOW AND HIGH CASE DSETS UN.89LBC AND UN.89HBC

TABLE P-1
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES ANO MILITARY
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	. 295
1985	186	0	76	0	262
1986	184	0	114	0	298
1987	178	0	118	0	296
1988	168	0	50	0	218
1989	161	0	10	0	171
1990	159	0	10	0	169
1991	1 59	0	10	0	169
1992	157	0	10	0	167
1993	157	0	10	0	1 6 7
1994	156	0	10	0	166
1995	156	0	10	0	1 6 6
1996	164	0	10	0	174
1997	184	0	40	0	224
1998	206	o	50	0	256
1999	214	0	40	0	254
2000	211	0	0	0	211
2001	210	0	0	0	210
2002	210	0	0	0	210
2003	210	0	0	0	210
2004	210	0	0	0	210
2005	210	0	0	0	210
2006	210	0	0	o	210
2007	210	0	0	0	210
2008	209	0	0	0	209
2009	209	0	0	0	209
2010	209	0	0	0	209

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET CB.89MBC--CREATED 11/16/83

TABLE P-2
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	MM-NATIVE FEMALE POPU-LATION
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1984	198	8	190	5	3	123	67
1985	186	8	178	5	3	115	63
1986	184	8	176	5	3	114	62
1987	178	7	171	5	3	110	60
1988	168	7	161	4	3	104	57
1989	161	7	154	4	3	100	54
1990	159	7	152	4	3	98	54
1991	159	7	152	4	3	98	54
1992	157	7	151	4	3	97	53
1993	157	7	150	4	3	97	53
1994	156	7	150	4	3	97	53
1995	156	7	149	4	3	97	53
1996	164	7	157	4	3	102	56
1997	184	8	177	5	3	114	62
1998	206	9	198	5	3	128	70
1999	214	9	205	6	3	133	72
2000	211	9	202	5	3	130	71
2001	210	9	202	5	3	130	71
2002	210	9	201	5	3	130	71
2003	210	9	201	5	3	130	71
2004	210	9	201	5	3	130	71
2005	210	9	201	5	3	130	71
2006	210	9	201	5	3	130	71
2007	210	9	201	5	3	130	71
2008	209	9	201	5	3	130	71
2009	209	9	201	5	3	130	71
2010	209	9	200	5	3	130	71

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET CB.89MBC—CREATED 11/16/83

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	225	17	32	174	1
1982	226	17	32	175	1
1983	197	15	28	152	1
1984	198	15	28	153	1
1985	186	14	26	144	1
1986	184	14	26	142	1
1987	178	14	25	138	1
1988	168	13	24	130	1
1989	161	12	23	125	1
1990	159	12	23	123	1
1991	159	12	23	123	1
1992	157	12	22	122	1
1993	157	12	22	123	1
1994	156	12	22	121	1
1995	156	12	22	121	1
1996	164	13	23	127	1
1997	184	14	26	143	1
1998	206	16	29	160	1
1999	214	17	31	166	1
2000	211	16	30	163	1
2001	210	16	30	163	1
2002	210	16	30	163	1
2003	210	16	30	163	1
2004	210	16	30	163	1
2005	210	16	30	163	1
2006	210	16	30	163	1
2007	210	16	30	162	1
2008	209	16	30	162	1
2009	209	16	30	162	1
2010	209	16	30	162	1

TABLE P-4
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1981	225	-3	0	-4	137	-141
1982	226	2	0	1	138	-137
1983	197	-30	0	-30	118	-148
1984	198	1	0	1	121	-120
1985	186	-12	0	-13	112	-125
1986	184	-2	0	-2	112	-114
1987	178	-6	0	-6	108	-114
1988	168	-10	0	-10	102	-112
1989	161	-7	0	-8	98	-105
1990	159	-2	0	-2	97	-99
1991	159	-0	0	-0	97	-97
1992	157	-2	0	-2	96	-98
1993	157	-1	0	-1	96	-96
1994	156	-0	0	-0	95	-96
1995	156	-1	0	-1	95	-96
1996	164	8	0	8	101	-93
1997	184	20	0	20	114	-94
1998	206	22	0	22	127	-106
1999	214	8	0	8	131	-124
2000	211	-4	0	-4	128	-132
2001	210	-0	0	-0	128	-129
2002	210	-0	0	-0	128	-129
2003	210	-0	0	-0	128	-129
2004	210	-0	0	-0	128	-129
2005	210	-0	0	-0	128	-129
2006	210	-0	0	-0	128	-128
2007	210	-0	0	-0	128	-128
2008	209	-0	0	-0	128	-128
2009	209	-0	0	-0	128	-128
2010	209	-0	0	-0	128	-128

SOURCE: VARIABLES PO, CHPO, NTIC, IM, IMLA, AND IMDE
DSET CB.89MBC--CREATED 11/16/83

TABLE P-5
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	0	0	0	134
1984	134	0	97	0	231
1985	126	0	76	0	202
1986	125	0	114	0	239
1987	121	0	118	0	239
1988	114	0	50	0	164
1989	109	0	10	0	119
1990	108	0	10	0	118
1991	108	0	10	0	118
1992	107	0	10	0	117
1993	106	0	10	0	116
1994	106	0	10	0	116
1995	106	0	10	0	116
1996	111	0	10	0	121
1997	125	0	40	0	165
1998	140	0	50	0	190
1999	145	0	4 0	0	185
2000	143	0	0	0	143
2001	143	0	0	0	143
2002	143	0	0	0	143
2003	143	0	0	0	143
2004	143	0	0	0	143
2005	143	0	0	0	143
2006	142	0	0	0	142
2007	142	0	0	0	142
2008	142	0	0	0	142
2009	142	0	0	0	142
2010	142	0	0	0	142

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SOURCE: VARIABLES EMRETO,EMENNOPJ,EMENPJ,EMML, AND EMTO
DSET CB.89MBC--CREATED 11/16/83

TABLE P-6
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT' EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	153	6	85	62	-0
1982	154	6	85	63	-0
1983	134	6	74 '	54	-0
1984	134	6	77	51	-0
1985	126	6	73	47	-0
1986	125	6	73	46	-0
1987	121	6	71	44	-0
1988	114	6	65·	43	-0
1989	109	6	61	42	-0
1990	108	6	60	42	-0
1991	108	6	60	42	-0
1992	107	6	60	41	-0
1993	106	6	60	40	-0
1994	106	6	60	40	-0
1995	106	6	60	40	-0
19!36	111	6	61	40	5
1997	125 ·	6	64	40	15
1998	140	6	66 '	41	27
1999	145	6	67	41	32
2000	143	6	64	41	32
2001	143	6	64	40	32
2002	143	6	64	40	32
2003	143	6	64	40	32
2004	143	6	64	40	32
2005	143	6	64	40	32
2006	142	6	64	40	32
2007	142	6	64	40	-32
2008	142	6	64	40	32"
2009	142	6	64	40	32
2010	142	6	64	40	32

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET CB.89MBC--CREATED 11/16/83

TABLE P-7
RURAL ALASKA MODEL PROJECTIONS
COLO BAY
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	6	0	6	0
1982	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6	0
1987	6	0	6	0
1988	6	0	6	0
1989	6	0	6	0
1990	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1994	6	0	6	0
1995	6	0	6	0
1996	6	0	6	0
1997	6	0	6	0
1998	6	0	6	0
1999	6	0	6	0
2000	6	0	6	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2005	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
OSET CB.89MBC--CREATED 11/16/83

TABLE P-8
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	74	12	0	62	0
1984	77	12	0	60	5
1985	73	11	0	58	4
1986	73	11	0	56	6
1987	71	11	0	54	6
1988	65	10	0	52	3
1989	61	10	0	51	1
1990	60	10	0	50	1
1991	60	10	0	50	1
1992	60	10	0	50	1
1993	60	10	0	50	1
1994	60	10	0	50	1
1995	60	10	0	50	1
1996	61	10	0	50	1
1997	64	12	0	50	2
1998	66	14	0	50	3
1999	67	15	0	50	2
2000	64	14	0	50	0
2001	64	14	0	50	0
2002	64	14	0	50	0
2003	64	14	0	50	0
2004	64	14	0	50	0
2005	64	14	0	50	0
2006	64	14	0	50	0
2007	64	14	0	50	0
2008	64	14	0	50	0
2009	64	14	0	50	0
2010	64	14	0	50	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.89MBC--CREATED 11/16/83

TABLE P-9
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	62	8	54
1982	63	9	5 4
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	46	8	38
1987	44	7	37
1988	43	7	36
1989	42	7	35
1990	42	7	35
1991	42	7	35
1992	41	6	35
1993	40	5	35
1994	40	5	35
1995	40	5	35
1996	40	5	35
1997	40	5	35
1998	41	6	35
1999	41	6	35
2000	41	6	35
2001	40	5	35
2002	40	5	35
2003	40	5	35
2004	40	5	35
2005	40	5	35
2006	40	5	35
2007	40	5	35
2008	40	5	35
2009	40	5	35
2010	40	5	35

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.89MBC--CREATED 11/16/83

TABLE P-10
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	64	50	0	0	114
1987	93	25	0	0	118
1988	50	0	0	0	50
1989	10	0	0	0	10
1990	10	0	0	0	10
1991	10	0	0	0	10
1992	10	0	0	0	10
1993	10	0	0	0	10
1994	10	0	0	0	10
1995	10	0	0	0	10
1996	10	0	5	0	15
1997	10	30	15	0	55
1998	10	40	27	0	77
1999	10	30	32	0	72
2000	0	0	32	0	32
2001	0	0	32	0	32
2002	0	0	32	0	32
2003	0	0	32	0	32
2004	0	0	32	0	32
2005	0	0	32	0	32
2006	0	0	32	0	32
2007	0	0	32	0	32
2008	0	0	3 2	0	32
2009	0	0	32	0	32
2010	0	0	32	0	32

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.89MBC--CREATED 11/16/83

TABLE P-11
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	- 0	0	0	0	0
1984	418	0	0	0	418
1985	684	0	0	0	684
1986	582	0	0	0	582
1987	430	0	0	0	- 430
1988	110	0	0	0	110
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	90	360	0	0	450
1998	180	720	0	0	900
1999	90	360	111	0	561
2000	0	0	116	0	116
2001	0	0	123	0	123
2002	0	0	126	0	126
2003	0	0	126	0	126
2004	0	0	126	0	126
2005	0	0	126	0	126
2006	0	0	126	0	126
2007	0	0	126	0	126
2008	0	0	126	0	126
2009	0	0	126	0	126
2010	0	0	126	0	126

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET CB.89MBC--CREATED 11/16/83

TABLE P-12
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
/ SALE 89 MEDIUM BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	-0	0	0	0
1982	-0	0	0	0
1983	-0	0	0	0
1984	-0	97	418	515
1985	-0	76	684	760
1986	-0	114	582	696
1987	-0	118	430	548
1988	-0	50	110	160
1989	-0	10	0	10
1990	-0	10	0	10
1991	-0	10	0	10
1992	-0	10	0	10
1993	-0	10	0	10
1994	-0	10	0	10
1995	-0	10	0	10
1996	5	10	0	15
1997	15	40	450	505
1998	27	50	900	977
1999	32	40	561	633
2000	32	0	116	148
2001	32	0	123	155
2002	32	0	126	158
2003	32	0	126	158
2004	32	0	126	158
2005	32	0	126	158
2006	32	0	126	158
2007	32	0	126	158
2008	32	0	126	158
2009	32	0	126	158
2010	32	0	126	158

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.89MBC--CREATED 11/16/83

TABLE P-13
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 MEDIUM BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
1983	0	0	0	0	0	0
1984	515	0	465	50	0	0
1985	760	0	760	0	0	0
1986	696	0	646	50	0	0
1987	548	0	523	25	0	0
1988	160	0	160	0	0	0
1989	10	0	10	0	0	0
1990	10	0	10	0	0	0
1991	10	0	10	0	0	0
1992	10	0	10	0	0	0
1993	10	0	10	0	0	0
1994	10	0	10	0	0	0
1995	10	5	10	0	5	0
1996	15	15	15	0	15	0
1997	505	27	115	39	27	0
1998	977	27	217	76	27	0
1999	633	32	243	39	32	0
2000	148	32	148	0	32	0
2001	155	32	155	0	32	0
2002	158	32	158	0	32	0
2003	158	32	158	0	32	0
2004	158	32	158	0	32	0
2005	158	32	158	0	32	0
2006	158	32	158	0	32	0
2007	158	32	158	0	32	0
2008	158	32	158	0	32	0
2009	158	32	158	0	32	0
2010	158	32	158	0	32	0

TABLE P-14
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1980	–	–		–	–
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	189	0		0	189
1985	179	0	0	0	179
1986	174	0	0	0	174
1987	168	0	0	0	168
1988	164	0	0	0	164
1989	160	0	0	0	160
1990	156	0	0	0	156
1991	153	0	0	0	153
1992	148	0	0	0	148
1993	144	0	0	0	144
1994	142	0	0	0	142
1995	140	0	0	0	140
1996	137	0	0	0	137
1997	136	0	0	0	136
1998	134	0	0	0	134
1999	132	0	0	0	132
2000	130	0	0	0	130
2001	130	0	0	0	130
2002	130	0	0	0	130
2003	130	0	0	0	130
2004	130	0	0	0	130
2005	130	0	0	0	130
2006	130	0	0	0	130
2007	130	0	0	0	130
2008	130	0	0	0	130
2009	129	0	0	0	129
2010	129	0	0	0	129

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET C8.89LBC--CREATED NOVEMBER 1983

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1980	–			.			
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1984	189	8	182	5	3	117	64
1985	179	8	172	5	3	111	61
1986	174	7	167	4	3	108	59
1987	168	7	161	4	3	104	57
1988	164	7	157	4	3	101	55
1989	160	7	153	4	3	99	54
1990	156	7	150	4	3	97	53
1991	153	6	146	4	2	95	52
1992	148	6	142	4	2	92	50
1993	144	6	138	4	2	89	49
1994	142	6	136	4	2	88	4	8
1995	140	6	134	4	2	87	47
1996	137	6	132	4	2	85	47
1997	136	6	130	3	2	84	46
1998	134	6	128	.3	2	83	45
1999	132	6	126	3	2	82	45
2000	130	5	125	3	2	81	44
2001	130	5	125	3	2	81	44
2002	130	5	125	3	2	81	44
2003	130	5	124	3	2	80	44
2004	130	5	124	3	2	80	44
2005	130	5	124	3	2	80	44
2006	130	5	124	3	2	80	44
2007	130	5	124	3	2	80	44
2008	130	5	124	3	2	80	44
2009	129	5	124	3	2	80	44
2010	129	5	124	3	2	80	44

SOURCE: VARIABLES PO, PONA. PONN. PONAMA. PONAFE.
PONNMA, ANO PONNFE
DSET CB.89LBC--CREATED NOVEMBER 1983

TABLE P-16
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1980	-	-	-	-	-
1981	225	17	32	174	1
1982	226	17	32	176	1
1983	197	15	28	152	1
1984	189	15	27	147	1
1985	179	14	26	139	1
1986	174	13	25	135	1
1987	168	13	24	130	1
1988	164	13	23	127	1
1989	160	12	23	124	1
1990	156	12	22	121	1
1991	153	12	22	118	1
1992	148	11	21	115	1
1993	144	11	21	112	1
1994	142	11	20	110	1
1995	140	11	20	108	1
1996	137	11	20	107	1
1997	136	10	19	105	1
1998	134	10	19	104	1
1999	132	10	19	102	1
2000	130	10	19	101	1
2001	130	10	19	101	1
2002	130	10	19	101	1
2003	130	10	19	101	1
2004	130	10	19	101	1
2005	130	10	19	101	1
2006	130	10	18	100	1
2007	130	10	18	100	1
2008	130	10	18	100	1
2009	129	10	18	100	1
2010	129	10	18	100	1

TABLE P-17
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1980	-	-	-	-	-	-
1981	225	-3	0	-4	137	-141
1982	226	2	0	1	138	-137
1983	197	-30	0	-30	118	-148
1984	189	-7	0	-7	115	-123
1985	179	-10	0	-11	109	-119
1986	174	-5	0	-6	106	-111
1987	168	-6	0	-6	102	-108
1988	164	-5	0	-4	100	-104
1989	160	-4	0	-4	97	-101
1990	156	-4	0	-4	95	-99
1991	153	-4	0	-4	93	-97
1992	148	-3	0	-5	90	-95
1993	144	-5	0	-4	88	-92
1994	142	-4	0	-2	87	-89
1995	140	-2	0	-3	85	-88
1996	137	-2	0	-2	84	-86
1997	136	-2	0	-2	83	-85
1998	134	-2	0	-2	81	-84
1999	132	-2	0	-2	80	-82
2000	130	-2	0	-2	79	-81
2001	130	-2	0	-2	79	-80
2002	130	-2	0	-2	79	-80
2003	130	-0	0	-0	79	-80
2004	130	-0	0	-0	79	-80
2005	130	-0	0	-0	79	-79
2006	130	-0	0	-0	79	-79
2007	130	-0	0	-0	79	-79
2008	130	-0	0	-0	79	-79
2009	129	-0	0	-0	79	-79
2010	129	-0	0	-0	79	-79

TABLE P-18
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	RESIDENT EMPLOYMENT	NON- PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1980			—		
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	0	0	0	134
% 984	129	0	0	0	129
1985	122	0	0	0	122
1986	118	0	0	0	118
1987	114	0	0	0	114
1988	111	0	0	0	111
1989	109	0	0	0	109
1990	106	0	0	0	106
1991	104	0	0	0	104
1992	100	0	0	0	100
1993	98	0	0	0	98
1994	96	0	0	0	96
1995	95	0	0	0	95
1996	93	0	0	0	93
1997	92	0	0	0	92
1998	91	0	0	0	91
1999	90	0	0	0	90
2000	88	0	0	0	88
2001	88	0	0	0	88
2002	88	0	0	0	88
2003	8$	0	0	0	88
2004	88	0	0	0	88
2005	88	0	0	0	88
2006	88	0	0	0	88
2007	88	0	0	0	88
2008	88	0	0	0	88
2009	88	0	0	0	88
2010	88	0	0	0	88

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET CB.89LBC—CREATED NOVEMBER 1983

TABLE P-19
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1980					
1981	153	6	85	62	-0
1982	154	6	8 5	63	-0
1983	134	6	74	54	-0
1984	129	6	72	51	-0
1985	122	6	69	47	-0
1986	118	6	67	45	-0
1987	114	6	64·	44	-0
1988	111	6	62	43	-0
1989	109	6	61	42	-0
1990	106	6	60	41	-0
1991	104	6	58	39	-0
1992	100	6	57	37	-0
1993	98	6	56	36	-0
1994	96	6	55	36	-0
1995	95	6	54	35	-0
1996	93	6	52	35	-0
1997	92	6	51	35	- o
1998	91	6	50	35	-0
1999	90	6	49	35	-0
2000	88	6	48	34	-0
2001	88	6	4 8	34	-0
2002	88	6	48	34	-0
2003	88	6	48	34	-0
2004	88	6	48	34	-0
2005	88	6	48	34	-0
2006	88	6	48	34	-0
2007	88	6	48	34	-0
2008	88	6	48	34	-0
2009	88	6	48	34	-0
2010	88	6	48	34	-0

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET CB.89LBC--CREATED NOVEMBER 1983

TABLE P-20
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1980				
1981	6	0	6"	0
1982	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6.	0
1987	6	0	6	0
1988	6	0	6	0
1989	6	0	6	0
1990	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1 994	6	cl	6	0
1995	6	0	6	0
1996	6	0	6	0
1997	6	0	6	0
1998	6	0	6	0
1999	6	0	6	0
2000	6	0	6 "	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2 0 0 5	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

TABLE P-21
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1980					
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	74	12	0	62	0
1984	72	12	0	60	0
1985	69	11	0"	58	0
1986	67	11	0	56	0
1987	64	10	0	54	0
1988	62	10	0	52	0
1989	61	10	0	51	0
1990	60	10	0	50	0
1991	58	9	0	49	0
1992	57	9	0	48	0
1993	56	9	0	47	0
1994	55	9	0	46	0
1995	54	9	0	45	0
1996	52	8	0	44	0
1997	51	8	0	43	0
1998	50	8	0	42	0
1999	49	B	0	41	0
2000	48	8	0	40	0
2001	48	8	0	40	0
2002	48	8	0	40	0
2003	48	8	0	40	0
2004	48	8	0	40	0
2005	48	8	0	40	0
2006	48	8	0	40	0
2007	48	8	0	40	0
2008	48	8	0	40	0
2009	48	8	0	40	0
2010	48	8	0	40	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.89LBC--CREATED NOVEMBER 1983

TABLE P-22
RURAL ALASKA MODEL PROJECTIONS
COLD   BAY
SALE 89 LOW BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1980	–		–
1981	62	8	54
1982	63	9	54
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	45	7	38
1987	44	7	37
1988	43	7	36
1989	42	7	35
1990	41	7	34
1991	39	6	33
1992	37	5	32
1993	36	5	31
1994	36	5	31
1995	35	4	31
1996	35	4	31
1997	35	4	31
1998	35	4	31
1999	35	4	31
2000	34	3	31
2001	34	3	31
2002	34	3	31
2003	34	3	31
2004	34	3	31
2005	34	3	31
2006	34	3	31
2007	34	3	31
2008	34	3	31
2009	34	3	31
2010	34	3	31

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.89LBC--CREATED NOVEMBER 1983

TABLE P-23
RURAL ALASKA MODEL PROJECTIONS
COLD 8AY
SALE 89 LOW BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1980		-			
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0 "	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0

TABLE P-24
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1980	-				
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF _
DSET CB.89LBC—CREATED NOVEMBER 1983

TABLE P-25
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 LOW BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1980	-			
1981	-o	0	0	0
1982	-o	0	0	0
1983	-o	0	0	0
1984	-o	0	0	0
1985	-o	0	0	0
1986	-0	0	0	0
1987	-0	0	0	o
1988	-o	0	0	0
1989	-o	0	0	0
1990	-o	0	0	0
1991	-o	0	0	0
1992	-o	0	0	0
1993	-0	0	0	0
1994	-0	o	0	0
1995	-o	0	0	0
1996	-o	0	0	0
1997	-0	0	0	0
1998	-0	0	0	0
1999	-o	0	0	0
2000	-o	0	0	0
2001	-o	0	0	0
2002	-o	0	0	0
2003	-o	0	0	0
2004	-o	0	0	0
2005	-o	0	0	0
2006	-o	0	0	0
2007	-o	0	0	0
2008	-o	0	0	0
2009	-o	0	0	0
2010	-o	0	0	0

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.B9LBC--CREATEO NOVEMBER 1983

RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE **89** LOW BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1980				—		
1981	0	-0	0	0	0	-0
1982	0	-0	0	0	0	-0
1983	0	-0	0	0	0	-0
1984	0	-0	0	0	0	-0
1985	0	-0	0	0	0	-0
1986	0	-0	0	0	0	-0
1987	0	-0	0	0	0	-0
1988	0	-0	0	0	0	-0
1989	0	-0	0	0	0	-0
1990	0	-0	0	0	0	-0
1991	0	-0	0	0	0	-0
1992	0	-0	0	0	0	-0
1993	0	-0	0	0	0	-0
1994	0	-0	0	0	0	-0
1995	0	-0	0	0	0	-0
1996	0	-0	0	0	0	-0
1997	0	-0	0	0	0	-0
1998	0	-0	0	0	0	-0
1999	0	-0	0	0	0	-0
2000	0	-0	0	0	0	-0
2001	0	-0	0	0	0	-0
2002	0	-0	0	0	0	-0
2003	0	-0	0	0	0	-0
2004	0	-0	0	0	0	-0
2005	0	-0	0	0	0	-0
2006	0	-0	0	0	0	-0
2007	0	-0	0	0	0	-0
2008	0	-0	0	0	0	-0
2009	0	-0	0	0	0	-0
2010	0	-0	0	0	0	-0

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET CB.89LBC--CREATED NOVEMBER 1983

TABLE P-27
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	NoN-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES ANO MILITARY
1980					
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	229	0	0	0	229
1984	243	0	97	0	" 340
1985	245	0	76	0	321
1986	251	0	114	0	365
1987	254	0	118	0	372
1988	253	0	50	0	303
1989	253	0	10	0	263
1990	256	0	10	0	266
1991	259	0	10	0	269
1992	260	0	10	0	270
1993	263	0	10	0	273
1994	266	0	10	0	276
1995	268	0	10	0	2 7 8
1996	279	0	10	0	289
1997	303	0	40	0	343
1998	328	0	5 0	0	378
1999	339	0	40	0	379
2000	339	0	0	0	339
2001	342	0	0	0	342
2002	345	0	0	0	345
2003	348	0	0	0	348
2004	351	0	0	0	351
2005	354	0	0	0	354
2006	357	0	0	0	357
2007	360	0	0	0	360
2008.	364	0	0	0	364
2009	367	0	0	0	367
2010	370	0	0	0	370

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-28
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1980						–	–
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	229	10	220	6	4	142	78
1984	243	10	233	6	4	. 151	82
1985	245	10	234	6	4	152	83
1986	251	11	241	6	4	156	85
1987	254	11	243	7	4	157	86
1988	253	11	243	7	4	157	86
1989	253	11	242	7	4	157	85
1990	256	11	245	7	4	159	87
1991	259	11	248	7	4	161	88
1992	260	11	249	7	4	161	88
1993	263	11	252	7	4	163	89
1994	266	11	254	7	4	165	90
1995	268	11	257	7	4	166	91
1996	279	12	267	7	5	173	94
1997	303	13	290	8	5	187	102
1998	328	14	314	8	5	203	111
1999	339	14	325	9	6	210	115
2000	339	14	324	9	6	210	115
2001	342	14	327	9	6	212	116
2002	345	14	330	9	6	214	117
2003	348	15	333	9	6	216	118
2004	351	15	336	9	6	218	119
2005	354	15	339	9	6	219	120
2006	357	15	342	9	6	221	121
2007	360	15	345	9	6	223	122
200$	364	15	348	9	6	225	123
2009	367	15	351	9	6	227	124
2010	370	16	354	10	6	229	125

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-29
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1980					–
1981	225	17	32	174	1
1982	226	17	32 "	176	1
1983	229	18	33	178	1
1984	243	19	35	188	1
1985	245	19	35	190	1
1986	251	19	36	195	1
1987	254	20	36"	197	" 1
1988	253	20	36	196	1
1989	253	19	36	196	1
1990	256	20	36	198	1
1991	259	20	37	201	1
1992	260	20	37	202	1
19!?3	263	20	37	204	1
1994	266	20	38	206	1
1995	268	21	38	207	1
1996	279.	22	40	216	1
1997	303	23	43	234	2
1998	328	25	47	254	2
1999	339	26	48	263	2
2000	339	26	48	262	2
2001	342	26	49	265	2
2002	345	27	49	267	2
2003	348	27	50	270	2
2004	351	27	50	272	2
2005	354	27	51	274	2
2006	357	28	51	277	2
2007	360	28	51	279	2
2008	364	28	52	282	2
2009	367	28	52	284	2
2010	370	29	53	287	2

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-30
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1980			—	—		
1981	225	-3	0	-4	137	-141
1982	.226	2	0	1	138	-137
1983	229	3	0	3	140	-138
1984	243	14	0	13	149	-% 36
1985	245	2	0	1	149	-148
1986	251	7	0	6	154	-148
1987	254	'3	0	2	155	-153
1988	253	-1	0	-1	155	-156
1989	253	-1	0	-1	154	-155
1990	256	3	0	3	156	-154
1991	259	3	0	3	158	-155
1992	260	1	0	0	159	-158
1993	263	2	0	2	160	-158
1994	266	3	0	3	162	-160
1995	268	2	0	2	164	-162
1996	279	11	0	11	171	-160
1997	303	23	0	23	186	-163
1998	328	25	0	25	202	-177
1999	339	11	0	11	208	-197
2000	339	-0	0	-1	207	-207
2001	342	3	0	3	209	-206
2002	345	3	0	3	211	-208
2003	348	3	0	3	213	-210
2004	351	3	0	3	214	-212
2005	354	3	1	3	216	-214
2006	357	3	1	3	218	-216
2007	360	3	1	3	220	-218
2008	364	3	1	3	222	-219
2009	367	3	1	3	224	-221
2010	370	3	1	3	226	-223

SOURCE: VARIABLES PO, CHPO,NTIC,IM,IMLA,AND IMDE
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-31
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT EMPLOYMENT	NON- PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1980					
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	156	0	0	0	156
1984	165	0	97	o	" 262
1985	166	0	76	0	242
1986	171	0	114	0	285
1987	173	0	118	0	291
1988	172	0	50	0	222
1989	172	0	10	0	182
1990	174	0	10	0	184
1991	176	0	10	0	1 86
1992	177	0	10	0	187
1993	178	0	10	0	188
1994	180	0	10	0	190
1995	182	0	10	0	192
1996	190	0	10	0	200
1997	205	0	40	0	245
1998	222	0	5 0	0	272
1999	230	0	40	0	270
2000	230	0	0	0	230
2001	232	0	0	0	232
2002	234	0	, 0	0	234
2003	236	0	0	0	236
2004	238	0	0	0	238
2005	241	0	0	0	241
2006	243	0	0	0	243
2007	245	0	0	0	245
2008	247	0	0	0	247
2009	249	0	0	0	249
2010	251	0	0	0	251

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-32
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
-SALE 89 HIGH BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1980					
1981	153	6	85	62	-0
1982	154	6'	85 "	63	-0
1983	156	8	85	63	-0
1984	165	10	91	64	-0
1985	166	12	90	64	-0
1986	171	14	92	65	-0
1987	173	16	92	64	-0
1988	172	18	89	65	-0
1989	172	20	87	65	-0
1990	174	22	87	65	-0
1991	176	24	87	65	-0
1992	177	26	87	63	-0
1993	178	28	87	63	-0
1994	180	30	88	63	-0
1995	182	32	88	62	-0
1996	190	34	89	62	5
1997	205	36	92 "	62	15
1998	222	38	95	63	27
1999	230	40	95	63	32
2000	230	42	93	63	32
2001	232	44	93 "	63	32
2002	234	46	93	63	32
2003	236	48	93	63	32
2004	238	50	94	63	32
2005	241	52	94	63	32
2006	243	54	94	63	32
2007	245	56	94	63	32
2008	247	58	94	63	32
2009	249	60	95	62	32
2010	251	62	95	6 2	32

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-33
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1980	-	-	-	-
1981	6	0	6	0
1982	6	0	6	0
1983	8	0	8	0
1984	10	0	10	0
1985	12	0	12	0
1986	14	0	14	0
1987	16	0	16	0
1988	18	0	18	0
1989	20	0	20	0
1990	22	0	22	0
1991	24	0	24	0
1992	26	0	26	0
1993	28	0	28	0
1994	30	0	30	0
1995	32	0	32	0
1996	34	0	34	0
1997	36	0	36	0
1998	38	0	38	0
1999	40	0	40	0
2000	42	0	42	0
2001	44	0	44	0
2002	46	0	46	0
2003	48	0	48	0
2004	50	0	50	0
2005	52	0	52	0
2006	54	0	54	0
2007	56	0	56	0
2008	58	0	58	0
2009	60	0	60	0
2010	62	0	62	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE 63-34
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1980	-				
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	85	14	0	71	0
1984	91	15	0	71	5
1985	90	15	0	71	4
1986	92	15	0	71	6
1987	92	15	0	71	6
1988	89	15	0	71	3
1989	87	15	0	71	1
1990	87	15	0	71	1
1991	87	16	0	71	1
1992	87	16	0	71	1
1993	87	16	0	71	1
1994	88	16	0	71	1
1995	88	16	0	71	1
1996	89	17	0	71	1
1997	92	19	0	71	2
1998	95	21	0	71	3
1999	95	22	0	71	2
2000	93	22	0	71	0
2001	93	22	0	71	0
2002	93	22	0	71	0
2003	93	.22	0	71	0
2004	- 94	23	0	71	0
2005	94	23	0	71	0
2006	94	23	0	71	0
2007	94	23	0	71	0
200$	94	23	0	71	0
2009	95	24	0	71	0
2010	95	24	0	71	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-35
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1980	-	-	-
1981	62	8	54
1982	63	9	54
1983	63	9	54
1984	64	10	54
1985	64	10	54
1986	65	11	54
1987	64	10	54
1988	65	11	54
1989	65	11	54
1990	65	11	54
1991	65	11	54
1992	63	9	54
1993	63	9	54
1994	63	9	54
1995	62	8	54
1996	62	8	54
1997	62	8	54
1998	63	9	54
1999	63	9	54
2000	63	9	54
2001	63	9	54
2002	63	9	54
2003	63	9	54
2004	63	9	54
2005	63	9	54
2006	63	9	54
2007	63	9	54
2008	63	9	54
2009	62	8	54
2010	62	8	54

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-36
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1980	-				
1981	0	0	c?	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	64	50	0	0	114
1987	93	25	0	0	118
1988	50	0	0	0	50
1989	10	0	0	0	10
1990	10	0	0	0	10
1991	10	c1	0	0	10
1992	10	0	0	0	10
1993	10	0	0	0	10
1994	10	0	0	0	10
1995	10	0	0	0	10
1996	10	0	5	0	15
1997	10	30	15	0	55
1998	10	40	27	0	77
1999	10	30	3 2	0	72
2000	0	0	32	0	32
2001	0	0	32	0	32
2002	0	0	32	0	32
2003	0	0	32	0	32
2004	0	0	32	0	32
2005	0	0	32	0	32
2006	0	0	32	0	32
2007	0	0	32	0	32
2008	0	0	32	0	32
2009	0	0	32	0	32
2010	0	0	32	0	32

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-37
RURAL ALASKA MODEL PROJECTIONS
COLD 8AY
SALE 89 HIGH BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1980					
1981	0	0	0"	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	418	0	0	0	418
1985	684	0	0	0	684
1986	582	0	0	0	582
1987	430	0	0	0	430
1988	110	0	0	0	110
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	90	360	0	0	450
1998	180	720	0	0	900
1999	90	360	111	0	561
2000	0	0	116	0	116
2001	0	0	123	0	123
2002	0	0	126	0	126
2003	0	0	126	0	126
2004	0	0	126	0	126
2005	0	0	126	0	126
2006	0	0	126	0	126
2007	0	0	126	0	126
2008	0	0	126	0	126
2009	0	0	126	0	126
2010	0	0	126	0	126

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-3a
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1980		-	-	
1981	-0	0	0	0
1982	-0	0	0	0
1983	-0	0	0	0
1984	-0	97	418	515
1985	-0	76	684	760
1986	-0	114	582	696
1987	-0	118	430	548
1988	-0	50	110	160
1989	-0	10	0	10
1990	-0	10	0	10
1991	-0	10	0	10
1992	-0	10	0	10
1993	-0	10	0	10
1994	-0	10	0	10
1995	-0	10	0	10
1996	5	10	0	15
1997	15	40	450	505
1998	27	50	900	977
1999	32	40	561	633
2000	32	0	116	148
2001	32	0	123	155
2002	32	0	126	158
2003	32	0	126	158
2004	32	0	126	158
2005	32	0	126	158
2006	32	0	126	158
2007	32	0	126	158
2008	32	0	126	158
2009	32	0	126	158
2010	32	0	126	158

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.89HBC—CREATED NOVEMBER 1983

TABLE P-39
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 HIGH BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1980						
1981	0	-0	0	0	0	-0
1982	0	-0	0	0	0	-0
1983	0	-0	0	0	0	-0
1984	515	-0	465	50	0	-0
1985	760	-0	760	0	0	-0
1986	696	-0	646	50	0	-0
1987	548	-0	523	25	0	-0
1988	160	-0	160	0	0	-0
1989	10	-0	10	0	0	-0
1990	10	-0	10	0	0	-0
1991	10	-0	10	0	0	-0
1992	10	-0	10	0	0	-0
1993	10	-0	10	0	0	-0
1994	10	-0	10	0	0	-0
1995	10	-0	10	0	0	-0
1996	15	5	15	0	5	-0
1997	505	15	115	390	15	-0
1998	977	27	217	760	27	-0
1999	633	32	243	390	32	-0
2000	148	32	148	0	32	-0
2001	155	32	155	0	32	-0
2002	158	32	158	0	32	-0
2003	158	32	158	0	32	-0
2004	158	32	158	0	32	-0
2005	158	32	158	0	32	-0
2006	158	32	158	0	32	-0
2007	158	32	158	0	32	-0
2008	158	32	158	0	32	-0
2009	158	32	158	0	32	-0
2010	158	32	158	0	32	-0

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET CB.89HBC--CREATED NOVEMBER 1983

TABLE P-40
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	NON- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	295
1985	186	0	76	0	262
1986	186	0	137	0	323
1987	179	0	124	0	303
1988	169	0	56	0	225
1989	161	0	16	0	177
1990	159	0	16	0	175
1991	159	0	10	0	169
1992	157	0	10	0	167
1993	157	0	10	0	167
1994	157	0	10	0	167
1995	156	0	10	0	166
1996	164	0	10	0	174
1997	184	0	40	0	224
1998	206	0	50	0	256
1999	214	0	40	0	254
2000	211	0	0	0	211
2001	211	0	0	0	211
2002	210	0	0	0	210
2003	210	0	0	0	210
2004	210	0	0	0	210
2005	210	0	0	0	210
2006	210	0	0	0	210
2007	210	0	0	0	210
2008	210	0	0	0	210
2009	209	0	0	0	209
2010	209	0	0	0	209

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET CB.92MBC--CREATED 1981

TABLE P-41
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1984	198	8	190	5	3	123	67
1985	186	8	178	5	3	. 115	63
1986	186	8	178	5	3	115	63
1987	179	8	171	5	3	111	60
1988	169	7	162	4	3	105	57
1989	161	7	154	4	3	100	55
1990	159	7	153	4	3	99	54
1991	159	7	152	4	3	98	54
1992	157	7	151	4	3	98	53
1993	157	7	150	4	3	97	53
1994	157	7	150	4	3	97	53
1995	156	7	149	4	3	97	5 3
1996	164	7	157	4	3	102	56
1997	184	8	177	5	3	114	62
1 998	206	9	198	5	3	128	70
1999	214	9	205	6	3	133	73
2000	211	9	202	5	3	131	71
2001	211	9	202	5	3	130	71
2002	210	9	202	5	3	130	71
2003	210	9	201	5	3	130	71
2004	210	9	201	5	3	130	71
2005	210	9	201	5	3	130	71
2006	210	9	201	5	3	130	71
2007	210	9	201	5	3	130	71
2008	210	9	201	5	3	130	71
2009	209	9	201	5	3	130	71
2010	209	9	201	5	3	130	71

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET CB.92MBC--CREATED 1981

TABLE P-42
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	225	17	32	174	1
1982	226	17	32	176	1
1983	197	15	28	152	1
1984	198	15	28	153	1
1985	186	14	26	144	1
1986	186	14	27	144	1
1987	179	14	25	138	1
1988	169	13	24"	131	1
1989	161	12	23	125	1
19!30	159	12	23	124	1
1991	159	12	23	123	1
1992	157	12	22	122	1
1993	157	12	22	122	1
1994	157	12	22	121	1
1995	156	12	22	121	1
1996	164	13	23	127	1
1997	184	14	26	143	1
1998	206	16	29	160	1
1999	214	17	31	166	1
2000	211	16	30	163	1
2001	211	16	30	163	1
2002	210	16	30	163	1
2003	210	16	30	163	1
2004	210	16	30	163	1
2005	210	16	30	163	1
2006	210	16	30	163	1
2007	210	16	30	163	1.
2008	210	16	30	162	1
2009	209	16	30	162	1
2010	209	16	30	162	1

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET CB.92MBC--CREATED 1981

TABLE P-43
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1981	225	-3	0	-4	137	-141
1982	226	2	0	1	138	-137
-1983	197	-30	0	-30	118	-148
1984	198	1	0	1	121	-120
1985	186	-12	0	-13	113	-125
1986	186	0	0	-0	113	-114
1987	179	-7	0	-7	109	-116
1988	169	-10	0	-10	102	-113
1989	161	-7	0	-8	98	-106
1990	159	-2	0	-2	97	-99
1991	159	-1	0	-1	97	-98
1992	157	-2	0	-2	96	-98
1993	157	-1	0	-1	96	-96
1994	157	-0	0	-0	96	-96
1995	156	-1	0	-1	95	-96
1996	164	8	0	8	101	- 9 3
1997	184	20	0	20	114	-94
1998	206	22	0	22	127	-106
1999	214	8	0	8	131	-124
2000	211	-4	0	-4	128	-132
2001	211	-0	0	-0	128	-129
2002	210	-0	0	-0	128	-129
2003	210	-0	0	-0	128	-129
2004	210	-0	0	-0	128	-129
2005	210	-0	0	-0	128	-129
2006	210	-0	0	-0	128	-128
2007	210	-0	0	-0	128	-128
2008	210	-0	0	-0	128	-128
-2009	209	-0	0	-0	128	-128
201 0	209	-0	0	-0	128	-128

TABLE P-44
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	0	0	0	134
1984	134	0	97	0	231
1985	126	0	76	0	202
1986	126	0	137	0	263
1987	121	0	124	0	245
1988	115	0	56	0	171
1989	110	0	16	0	126
1990	108	0	16	0	124
1991	108	0	10	0	118
1992	107	0	10	0	117
1993	106	0	10	0	116
1994	106	0	10	0	116
1995	106	0	10	0	116
1996	111	0	10	0	121
1997	125	0	40	0	165
1998	140	0	50	0	190
1999	145	0	40	0	185
2000	143	0	0	0	143
2001	143	0	0	0	143
2002	143	0	0	0	143
2003	143	0	0	0	143
2004	143	0	0	0	143
2005	143	0	0	0	143
2006	142	0	0	0	142
2007	142	0	0	0	142
2008	142	0	0	0	142
2009	142	0	0	0	142
2010	142	0	0	0	142

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET CB.92MBC—CREATED 1981

TABLE P-45
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	
1981	153	6	85	62	-0	
1982	154	6	85	63	-0	
1983	134	6	74 "	54	-0	
1984	134	6	77	51	-0	
1985	126	6	73	47	-0	
1986	126	6	74	46	-0	
1987	121	6	71	44	-0	
1988	115	6	65	43	-0	
1989	110	6	62	42	-0	
1990	108	6	61	42	-0	
1991	108	6	60	42	-0	
1992	107	6	60	41	-0	
1993	106	6	60	40	-0	
1994	106	6	60 "	40	-0	
1995	106	6	60	40	-0	
1996	111	6	61	40	5	
1997	125	6	64	40	15	
1998	140	6	66 "	41	2	7
1999	145	6	67	41	32	
2000	143	6	64	41	32	
2001	143	6	64	40	32	
2002	143	6	6 4	40	32	
2003	143	6	64	40	32	
2004	143	6	64	40	32	
2005	143	6	64	40	32	
2006	142	6	64	40	32	
2007	142	6	64	40	32	
2008	142	6	64	40	32	
2009	142	6	64	40	32	
2010	142	6	64	40	32	

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, ANO EMREPJ
OSET CB.92MBC--CREATED 1981

TABLE P-46
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	6	0	6	0
1982	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6	0
1987	6	0	6	0
1988	6	0	6	0
1989	6	0	6	0
1990	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1994	6	0	6	0
1995	6	0	6	0
1996	6	0	6	0
1997	6	0	6	0
1998	6	0	-6	0
1999	6	0	6	0
2000	6	0	6	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2005	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET CB.92MBC--CREATED 1981

TABLE P-47
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	74	12	0	62	0
1984	77	12	0	60	5
1985	73	11	0	58	4
1986	74	11	0	56	7
1987	71	11	0	54	6
1988	65	10	0	52	3
1989	62	10	0	51	1
1990	61	10	0	50	1
1991	60	10	0	50	1
1992	60	10	0	50	1
1993	60	10	0	50	1
1994	60	10	0	50	1
1995	60	10	0	50	1
1996	61	10	0	50	1
1997	64	12	0	50	2
1998	66	14	0	50	3
1999	67	15	0	50	2
2000	64	14	0	50	0
2001	64	14	0	50	0
2002	64	14	0	50	0
2003	64	14	0	50	0
2004	64	14	0	50	0
2005	64	14	0	50	0
2006	64	14	0	50	0
2007	64	14	0	50	0
2008	64	14	0	50	0
2009	64	14	0	50	0
2010	64	14	0	50	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.92MBC--CREATED 1981

TABLE P-48
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	62	8	54
1982	63	9	54 "
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	46	8	38
1987	44	7	37·
1988	43	7	36
1989	42	7	35
1990	42	7	35
1991	42	7	35
1992	41	6	35
1993	40	5	35
1994	40	5	35
1995	40	5	35
1996	40	5	35
1997	40	5	35
1998	41	6	35
1999	41	6	35
2000	41	6	35
2001	40	5	35 "
2002	40	5	35
2003	40	5	35
2004	40	5	35
2005	40	5	35
2006	40	5	35
2007	40	5	35
2008	40	5	35
2009	40	5	35
2010	40	5	35

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.92MBC--CREATED 1981

TABLE P-49
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	70	67	0"	0	137
1987	99	25	.0	0	124
1988	56	0	0	0	56
1989	16	0	0	0	16
1990	16	0	0	0	16
1991	10	0	0	0	10
1992	10	0	0	0	10
1993	10	0	0	0	10
1994	10	0	0	0	10
1995	10	0	0.	0	10
1996	10	0	5	0	1 5
1997	10	30	15	0	55
1998	10	40	27	0	77
1999	10	30	32	0	72
2000	0	0	32	0	32
2001	0	0	32	0	32
2002	0	0	32	0	32
2003	0	0	32	0	32
2004	0	0	32	0	32
2 0 0 5	0	0	32	0	32
2006	0	0	32	0	32
2007	0	0	32	0	32
2008	0	0	32	0	32
2009	0	0	32	0	32
2010	0	0	32	0	32

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.92MBC--CREATED 1981

TABLE P-50
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	418	0	0	0	418
1985	684	0	0	0	684
1986	613	0	0	0	613
1987	461	0	0	0	461
1988	141	0	0	0	141
1989	31	0	0	0	31
1990	31	0	0	0	31
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	90	360	0	0	450
1998	180	720	0	0	900
1999	90	360	111	0	561
2000	0	0	116	0	116
2001	0	0	123	0	123
2002	0	0	126	0	126
2003	0	0	126	0	126
2004	0	0	126	0	126
2005	0	0	126	0	126
2006	0	0	126	0	126
2007	0	0	126	0	126
2008	0	0	126	0	126
2009	0	0	126	0	126
2010	0	0	126	0	126

TABLE P-51
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	-0	0	0	0
1982	-0	0	0	0
1983	-0	0	0"	0
1984	-0	97	418	515
1985	-0	76	684	760
1986	-0	137	613	750
1987	-0	124	461	585
1988	-0	56	141	197
1989	-0	16	31	47
1990	-0	16	31	47
1991	-0	10	0	10
1992	-0	10	0	10
1993	-0	10	0	10
1994	-0	10	0	10
1995	-0	10	0	10
1996	5	10	0	15
1997	15	40	450	505
1998	27	50	900 "	977
1999	32	40	561	633
2000	32	0	116	148
2001	32	0	123	155
2002	32	0	126 '.	158
2003	32	0	126	158
2004	32	0	126	158
2005	32	0	126	158
2006	32	0	126	158
2007	32	0	126	158
200$	32	0	126	158
2009	32	0	126	158
2010	32	0	126	158

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.92MBC--CREATED 1981

TABLE P-52
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 MEDIUM BASE CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	-0	0	0	0	-0
1982	0	-0	0	0	0	-0
1983	0	-0	0	0	0	-0
1984	515	-0	465	50	0	-0
1985	760	-0	760	0	0	-0
1986	750	-0	683	67	0	-0
1987	585	-0	560	25	0	-0
1988	197	-0	197	0	0	-0
1989	47	-0	47	0	0	-0
1990	47	-0	47	0	0	-0
1991	10	-0	10	0	0	-0
1992	10	-0	10	0	0	-0
1993	10	-0	10	0	0	-0
1994	10	-0	10	0	0	-0
1995	10	-0	10	0	0	-0
1996	15	5	15	0	5	-0
1997	505	15	115	390	15	-0
1998	977	27	217	760	27	-0
1999	633	32	243	390	32	-0
2000	148	32	148	0	32	-0
2001	155	32	155	0	32	-0
2002	158	32	158	0	32	-0
2003	158	32	158	0	32	-0
2004	158	32	158	0	32	-0
2005	158	32	158	0	32	-0
2006	158	32	158	0	32	-0
2007	158	32	158	0	32	-0
2008	158	32	158	0	32	-0
2009	158	32	158	0	32	-0
2010	158	32	158	0	32	-0

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET CB.92MBC--CREATED 1981

TABLE P-53
RURAL ALASKA MODEL PROJECTIONS
COLO 8AY
SALE 89 IMPACT CASE

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	295
1985	186	o	76	0	" 262
1986	186	0	139	0	325
1987	179	0	126	0	305
1988	169	0	65	0	234
1989	162	0	21	0	183
1990	161	0	37	0	198
1991	161	0	30	0	191
1992	162	0	66	0	228
1993	164	0	94	0	258
1994	191	0	35	0	226
1995	190	o	33 "	0	2 2 3
1996	207	0	10	0	217
1997	227	0	40	0	267
1998	249	0	50	0	299
1999	257	0	40	0	297
2000	253	0	0	0	253
2001	253	0	0	0	253
2002	253	0	0	0	253
2003	253	0	0	0	253
2004	252	0	0	0	252
2005	252	0	0	0	252
2006	252	0	0	0	252
2007	252	0	0	0	252
2008	252	0	0	0	252
2009	252	0	0	0	252
2010	252	o	0	0	252

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, ANO POTO
DSET CB.891IC--CREATED 11/17/83

TABLE P-54
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1984	198	8	190	5	3	123	67
1985	186	8	178	5	3	115	63
1986	186	8	178	5	3	115	63
1987	179	8	171	5	3	111	60
1988	169	7	162	4	3	105	57
1989	162	7	155	4	3	100	55
1990	161	7	154	4	3	100	55
1991	161	7	154	4	3	100	54
1992	162	7	155	4	3	100	55
1993	164	7	157	4	3	102	55
1994	191	8	183	5	3	118	65
1995	190	8	182	5	3	118	64
1996	207	9	198	5	3	128	70
1997	227	10	217	6	4	141	77
1998	249	10	238	6	4	154	84
1999	257	11	246	7	4	159	87
2000	253	11	242	7	4	157	86
2001	253	11	242	7	4	157	86
2002	253	11	242	7	4	157	86
2003	253	11	242	7	4	156	85
2004	252	11	242	6	4	156	85
2005	252	11	242	6	4	156	85
2006	252	11	242	6	4	156	85
2007	252	11	241	6	4	156	85
2008	252	11	241	6	4	156	85
2009	252	11	241	6	4	156	85
2010	252	11	241	6	4	156	85

TABLE P-55
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	225	17	32	174	1
1982	226	17	32	175	1
1983	197	15	28-	152	1
1984	198	15	28	153	1
1985	186	14	26	144	1
1986	186	14	27	144	1
1987	179	14	25	139	1
1988	169	13	24	131	1
1989	162	12	23	125	1
1990	161	12	23	125	1
1991	161	12	23	124	1
1992	162	13	23	126	1
1993	164	13	23	127	1
1994	191	15	27	148	1
1995	190	15	27	147	1
1996	207	16	29	160	1
1997	227	18	32	176	1
1998	249	19	35-	193	1
1999	257	20	37	199	1
2000	253	20	36	196	1
2001	253	20	36	196	1
2002	253	19	36	196	1
2003	253	19	36	196	1
2004	252	19	36	196	1
2005	252	19	36	196	1
2006	252	19	36	195	1
2007	252	19	36	195	1
2008	252	19	36	195	1
2009	252	19	36	195	1
2010	252	19	36	195	1

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET CB.891IC--CREATED 11/17/83

TABLE P-56
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
-1981	225	-3	0	-4	137	-141
-1982	226	2		1	138	-137
-1983	197	-30	0	-30	118	-148
-1' 984	1 98	1	0	1	121	-120
1985	186	-12	0	-13	112	-125
1986	186	0	0	0	113	-113
1987	179	-7	0	-7	109	-116
1988	169	-9	0	-10	103	-112
1989	1 62	-8	0	-8	98	-106
1990	161	-0	0	-1	98	-99
1991	1 61	-1	0	-1	98	-99
1992	162	1	0	1	99	-98
1993	164	2	0	2	100	-99
1994	191	27	0	27	118	-92
1995	1 90	-1	0	-1	116	-117
1996	207	17	0	17	127	-111
1997	227	20	0	20	140	-120
1998	249	22	0	22	153	-132
1999	257	8	0	8	157	-150
2000	253	-4	0	-4	154	-158
2001	253	-0	0	-1	154	-155
2002	253	-0	0	-1	154	-155
2003	253	-0	0	-1	154	-1 55
2004	252	-0	0	-1	154	-155
2005	252	-0	0	-1	154	-154
2006	252	-0	0	-1	154	-154
2007	252	-0	0	-1	154	-154
2008	252	-0	0	-1	154	-154
2009	252	-0	0	-1	154	-154
2010	252	-0	0	-1	153	-154

SOURCE: VARIABLES PO, CHPO, NTIC, IM, IMLA, AND IMDE
DSET CB.891IC--CREATED 11/17/83

TABLE P-57
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	RESIDENT EMPLOYMENT	NON-PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	0	0	0	134
1984	134	0	97	0	. 231
1985	126	0	76"	0	202
1986	126	0	139	0	265
1987	121	0	126	0	247
1988	115	0	65	0	180
1989	110	0	21	0	131
1990	110	0	37	0	147
1991	109	0	30	0	139
1992	110	0	66	0	176
1993	111	0	94	0	205
1994	130	0	35 .	0	165
1995	129	0	33	0	162
1996	140	0	10	0	150
1997	154	0	40	0	194
1998	169	0	50	0	219
1999	174	0	40	0	214
2000	172	0	0	0	172
2001	172	0	0	0	172
2002	172	0	0	0	172
2003	172	0	0	0	172
2004	171	0	0	0	171
2005	171	0	0	0	171
2006	171	0	0	0	171
2007	171	0	0	0	171
2008	171	0	0	0	171
2009	171	0	0	0	171
2010	171	0	0	0	171

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, ANO EMTO
DSET CB.891IC--CREATED 11/17/83

TABLE P-58
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	153	6	85	62	-0
1982	154	6	85	63	-0
1983	134	6	74	54	-0
1984	134	6	77	51	-0
1985	126	6	73	47	-0
1986	126	6	74	46	-0
1987	121	6	71	44	-0
1988	115	6	66	43	-0
1989	110	6	62	42	-0
1990	110	6	62	42	-0
1991	109	6	61	42	-0
1992	110	6	62	42	-0
1993	111	6	63	41	-0
1994	130	6	65	41	18
1995	129	6	64	41	18
1996	140	6	64	41	29
1997	154	6	65	41	39
1998	169	6	68	41	51
1999	174	6	70	42	56
2000	172	6	70	42	56
2001	172	6	68	42	56
2002	172	6	68	42	56
2003	172	6	68	41	56
2004	171	6	68	41	56
2005	171	6	68	41	56
2006	171	6	68	41	56
2007	171	6	68	41	56
2008	171	6	68	41	56
2009	171	6	68	41	56
2010	171	6	68	41	56

TABLE P-59
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	6	0	6.	0
1982	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6.	0
1987	6	0	6	0
1988	6	0	.6	0
1 989	6	0	6	0
1990	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1994	6	0	6	0
1995	6	0	6	0
1996	6	0	6.	0
1997	6	0	6	0
1998	6	0	6	0
1999	6	0	6	0
2000	6	0	6	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2005	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET CB.891IC--CREATED 11/17/83

TABLE P-60
RURAL ALASKA MODEL PROJECTIONS
COLD   BAY
SALE 89 IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	74	12	0	62	0
1984	77	12	0	60	5
1985	73	11	0	58	4
1986	74	11	0	56	7
1987	71	11	0	54	6
1988	66	10	0	52	3
1989	62	10	0	51	1
1990	62	10	0	50	2
1991	61	10	0	50	2
1992	63	10	0	50	3
1993	65	10	0	50	5
1994	64	13	0	50	2
1995	64	13	0	50	2
1996	65	14	0	50	1
1997	68	16	0	50	2
1998	70	18	0	50	3
1999	70	18	0	50	2
2000	68	18	0	50	0
2001	68	18	0	50	0
2002	68	18	0	50	0
2003	68	18	0	50	0
2004	68	18	0	50	0
2005	68	18	0	50	0
2006	68	18	0	50	0
2007	68	18	0	50	0
2008	68	18	0	50	0
2009	68	18	0	50	0
2010	68	18	0	50	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.891IC--CREATED 11/17/83

TABLE P-61
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	62	8	54
1982	63	9	54
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	46	8	38
1987	44	7	37
1988	43	7	36
1989	42	7	35
1990	42	7	35
1991	42	7	35
1992	41	6	35
1993	41	6	35
1994	41	6	35
1995	41	6	35
1996	41	6	35
1997	41	6	35
1998	42	7	35
1999	42	7	35
2000	42	7	35
2001	42	7	35
2002	41	6	35
2003	41	6	35
2004	41	6	35
2005	41	6	35
2006	41	6	35
2007	41	6	35
2008	41	6	35
2009	41	6	35
2010	41	6	35

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.891IC--CREATED 11/17/83

TABLE P-62
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0"	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	68	71	0	0	139
1987	97	29	0	0	126
1988	61	4	0	0	65
1989	17	4	0	0	21
1990	33	4	0	0	37
1991	26	4	0	0	30
1992	62	4	0	0	66
1993	56	38	0	0	94
1994	35	0	6	12	53
1995	33	0	6	12	51
1996	10	0	17	12	39
1997	10	30	27	12	79
1998	10	40	39	12	101
1999	10	30	44	12	96
2000	0	0	44	12	56
2001	0	0	44	12	56
2002	0	0	44	12	56
2003	0	0	44	12	56
2004	0	0	44	12	56
2005	0	0	44	12	56
2006	0	0	44	12	56
2007	0	0	44	12	56
2008	0	0	44	12	56
2009	0	0	44	12	56
2010	0	0	44	12	56

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.891IC--CREATED 11/17/83

TABLE P-63
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	418	0	0	0	418
1985	684	0	0	0	684
1986	614	0	0	0	614
1987	462	0	0	0	462
1988	188	0	0	0	188
1989	55	0	0	0	55
1990	260	0	0	0	260
1991	185	0	0	0	185
1992	487	0	0	0	487
1993	525	400	0	0	925
1994	135	0	134	9	278
1995	124	0	134	9	267
1996	0	0	215	18	233
1997	90	360	220	18	688
1998	180	720	220	18	1138
1999	90	360	336	18	804
2000	0	0	346	18	364
2001	0	0	353	18	371
2002	0	0	361	18	379
2003	0	0	361	18	379
2004	0	0	361	18	379
2005	0	0	361	18	379
2006	0	0	361	18	379
2007	0	0	361	18	379
2008	0	0	361	18	379
2009	0	0	361	18	379
2010	0	0	361	18	379

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
OSET CB.891IC--CREATED 11/17/83

TABLE P-64
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	-0	0	0	0
1982	-0	0	0	0
1983	-0	0	0	0
1984	-0	97	418	515
1985	-0	76	684	760
1986	-0	139	614	753
1987	-0	126	462	588
1988	-0	65	188	253
1989	-0	21	55	76
1990	-0	37	260	297
1991	-0	30	185	215
1992	-0	66	487	553
1993	-0	94	925	1019
1994	18	35	278	331
1995	18	33	267	318
1996	29	10	233	272
1997	39	40	688	767
1998	51	50	1138	1239
1999	56	40	804	900
2000	56	0	364	420
2001	56	0	371	427
2002	56	0	379	435
2003	56	0	379	435
2004	56	0	379	435
2005	56	0	379	435
2006	56	0	379	435
2007	56	0	379	435
2008	56	0	379	435
2009	56	0	379	435
2010	56	0	379	435

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.891IC--CREATED 11/17/83

TABLE P-65
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 89 IMPACT CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT	
1981	0	-0	0,	0	0	-0	
1982	0	-0	0	0	0	-0	
1983	0	-0	0	0	0	-0	
1984	515	-0	465	50	0	-0	
1985	760	-0	760	0	0	-cl	
1986	753	-0	682	71	0	-0	
1987	588	-0	559	29	0	-0	
1988	253	-0	249	4	0	-0	
1989	76	-0	72	4	0	-0	
1990	297	-0	293	4	0	-0	
1991	215	-0	211	4	0	-0	
1992	553	-0	549	4	0	-0	
1993	1019	-0	581	438	0	-0	
1994	331	18	310	21	6	12	
1995	318	18	297	21	6	12	
1996	272	29	2429	30	17	1	2
1997	767	39	347	420	27	12	
1998	1239	51	449	790	39	12	
1999	900	56	480	420	44	12	
2000	420	56	390	30	44	12	
2001	42?	56	397	30	44	12	
2002	435	56	405	30	44	12	
2003	435	56	405	30	44	12	
2004	435	56	405	30	44	12	
2005	435	56	405	30	44	12	
2006	435	56	405	30	44	12	
2007	435	56	405	30	44	12	
2008	435	56	405	30	44	12	
2009	435	56	405	30	44	12	
2010	435	56	405	30	44	12	

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET CB.891IC--CREATED 11/17/83

TABLE P-66
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT POPULATION	NoN- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	295
1985	186	0	76	0	262
1986	190	0	188	0	378
1987	179	0	130	0	309
1988	170	0	69	0	239
1989	162	0	25	0	187
1990	162	0	42	0	204
1991	161	0	29	0	190
1992	165	0	40	0	205
1993	168	0	83	0	251
1994	189	0	16	0	205
1995	188	0	13	0	201
1996	198	0	10	0	208
1997	218	0	40	0	258
1998	240	0	50	0	290
1999	248	0	40	0	288
2000	244	0	0	0	244
2001	244	0	0	0	244
2002	244	0	0	0	244
2003	244	0	0	0	244
2004	244	0	0	0	244
2005	244	0	0	0	244
2006	243	0	0	0	243
2007	243	0	0	0	243
2003	243	0	0	0	243
2009	243	0	0	0	243
2010	243	0	0	0	243

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET CB.921IC--CREATED 11/17/83

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TABLE P-67
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1981	225	9	215	6	4	139	76
19$2	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1'%84	198	8	190	5	3	123	67
1985	186	8	178	5	3	115	63
1986	190	8	182	5	3	118	64
1987	179	8	172	5	3	111	61
1988	170	7	163	4	3	105	57
1989	162	7	155	4	3	100	55
1990	162	7	155	4	3	100	55
1991	161	7	154	4	3	100	54
1992	165	7	158	4	3	102	56
1993	168	7	161	4	3	104	57
1994	189	8	181	5	3	117	64
1995	188	8	180	5	3	117	6
1996	198	8	190	5	3	123	67
1997	218	9	209	6	4	135	74
1998	240	10	230	6	4	149	81
1999	248	10	238	6	4	154	84
2000	244	10	234	6	4	151	83
2001	244	10	234	6	4	151	83
2002	244	10	234	6	4	151	83
2003	244	10	234	6	4	151	83
2004	244	10	233	6	4	151	82
2005	244	10	233	6	4	151	82
2006	243	10	233	6	4	151	f32
2007	243	10	233	6	4	151	82
2008	243	10	233	6	4	151	82
2009	243	10	233	6	4	151	82
2010	243	10	233	6	4	150	82

4

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET CB.921IC--CREATED 11/17/83

TABLE P-68
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	225	17	32	174	1
1982	226	17	32	176	1
1983	197	15	28	152	1
1984	198	15	28	153	1
1985	186	14	26	144	1
1986	190	15	27	147	1
1987	179	14	26	139	1
1988	170	13	24"	132	1
1989	162	12	23	126	1
1990	162	12	23	125	1
1991	161	12	23	124	1
1992	165	13	24	128	1
1993	168	13	24	131	1
1994	189	15	27	147	1
1995	188	15	27	146	1
1996	198	15	28	153	1
1997	218	17	31	169	1
1998	240	19	34	186	1
1999	248	19	35	192	1
2000	244	19	35	189	1
.2001	244	19	35	189	1
2002	244	19	35	189	1
2003	244	19	35	189	1
2004	244	19	35	189	1
2005	244	19	35	189	1
2006	243	19	35	189	1
2007	243	19	35	189	1
2008	243	19	35	188	1
2009	243	19	35	188	1
2010	243	19	35	188	1

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET CB.921IC--CREATED 11/17/83

TABLE P-69
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1981	225	-3	0	-4	137	-141
1982	226	2	0 ·	1	138	-137
1983	197	-30	0	-30	118	-148
1984	198	1	0	1	121	-120
1985	186	-12	0	-13	113	-125
1986	190	5	0	4	116	-112
1987	179	-11	0	-11	109	-120
1988	170	-9	0	-10	103	-113
1989	162	-8	0	-8	98	-106
1990	162	-o	0	-1	99	-99
1991	161	-1	0	-1	98	-99
1992	165	5	0	5	101	-97
1993	16$	3	0	3	103	-100
1994	189	21	0	21	117	-96
1995	188	-1	0	-1	115	-116
1996	198	10	0	9	121	-112
1997	218	20	0"	20	135	-115 "
1998	240	22	0	22	148	-126
1999	248	8	0	8	152	-144
2000	244	-4	0	-4	149	-153
2001	244	-o	O'	-1	149	-150
2002	244	-o	0	-1	149	-149
2003	244	-o	0	-1	149	-149
2004	244	-o	0	-o	149	-149
2005	244	-o	0	-o	149	-149
2006	243	-0	0	-1	149	-149
2007	243	-o	0	-o	148	-149
2008	243	-0	0	-o	148	-149
2009	243	-o	0	-o	148	-149
2010	243	-0	0	-o	148	-149

SOURCE: VARIABLES PO, CHPO, NTIC, IM, IMLA, AND IMDE
DSET CB.921IC--CREATED 11/17/83

TABLE P-70
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT EMPLOYMENT	NON- PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	0	0	0	134
1984	134	0	97	0	231
1985	126	0	76	0	202
1986	129	0	188	0	317
1987	122	0	130	0	252
1988	115	0	69	0	184
1989	110	0	25	0	135
1990	110	0	42	0	152
1991	109	0	29	0	138
1992	112	0	40	0	152
1993	114	0	83	0	197
1994	129	0	16	0	145
1995	128	0	13	0	141
1996	134	0	10	0	144
1997	148	0	40	0	188
1998	163	0	50	0	213
1999	168	0	40	0	208
2000	166	0	0	0	166
2001	166	0	0	0	166
2002	166	0	0	0	166
2003	166	0	0	0	166
2004	165	0	0	0	165
2005	165	0	0	0	165
2006	165	0	0	0	165
2007	165	0	0	0	165
2008	165	0	0	0	165
2009	165	0	0	0	165
2010	165	0	0	0	165

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET CB.921IC--CREATED 11/17/83

TABLE P-71
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	153	6	85	62	-0
1982	154	6	85.	63	-0
1983	134	6	74	54	-0
1984	134	6	77	51	-0
1985	126	6	73	47	-0
1986	129	6	77	46	-0
1987	122	6	72	44	-0
1988	115	6	66"	43	-0
1989	110	6	62	42	-0
1990	110	6	62	42	-0
1991	109	6	61	42	-0
1992	112	6	62	41	3
1993	114	6	65	41	3
1994	129	6	63	41	18
1995	128	6	63	41	18
1996	134	6	64	41	24
1997	148	6	67	41	34
1998	163	6	69	41	46
1999	168	6	70	42	51
2000	166	6	67	41	51
2001	166	6	67	41	51
2002	166	6	67	41	51
2003	166	6	67	41	51
2004	165	6	67	41	51
2005	165	6	67	41	51
2006	165	6	67	4-i	51
2007	165	6	67	41	51
2008	165	6	67	41	51
2009	165	6	67	41	51
2010	165	6	67	41	51

SOURCE: VARIABLES EMRETO,EMBA, EMSU, EMGO, AND EMREPJ
DSET CB.921IC--CREATED 11/17/83

TABLE P-72
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	6	0	6	0
19!32	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6	0
1987	6	0	6	0
1988	6	0	6	0
1989	6	0	6	0
19!30	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1994	6	0	6	0
1995	6	0	6	0
1996	6	0	6	0
1997	6	0	6	0
1998	6	0	6	0
1999	6	0	6	0
2000	6	0	6	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2005	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
DSET CB.921IC--CREATED 11/17/83

TABLE P-73
RURAL ALASKA MODEL PRODUCTIONS
COLO BAY
SALE 92 IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	94	12	0	62	0
1984	77	12	0	60	5
1985	73	11	0	58	4
1986	77	12		56	9
1987	72	11	0	54	7
1988	66	10	0	52	3
1989	62	10	0	51	1
1990	62	10	0	50	2
1991	61	10	0	5	0	1
1992	62	10	0	50	2
1993	65	11	0	50	4
1994	63	12	0	50	1
1995	63	12	0	50	1
1996	64	13	0	50	1
1997	67	15	0	50	2
1998	69	17	0	50	3
1999	70	18	0	50	2
2000	67	17	0	50	0
2001	67	17	0	50	0
2002	67	17	0	50	0
2003	67	17	0	50	0
2004	67	17	0	50	0
2005	67	17	0	50	0
2006	67	17	0	50	0
2007	67	17	0	50	0
2008	67	17	0	50	0
2009	67	17	0	50	0
2010	67	17	0	50	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, ANO EMSUEN
DSET CB.921IC--CREATED 11/17/83

TABLE P-74
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	62	8	54
1982	63	9	54
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	46	8	38
1987	44	7	37
1988	43	7	36
1989	42	7	35
1990	42	7	35
1991	42	7	35
1992	41	6	35
1993	41	6	35
1994	41	6	35
1995	41	6	35
1996	41	6	35
1997	41	6	35
1998	41	6	35
1999	42	7	35
2000	41	6	35
2001	41	6	35
2002	41	6	35
2003	41	6	35
2004	41	6	35
2005	41	6	35
2006	41	6	35
2007	41	6	35
2008	41	6	35
2009	41	6	35
2010	41	6	35

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.921IC--CREATED 11/17/83

TABLE P-75
RURAL ALASKA MODEL PROJECTIONS
-COLD BAY
SALE 92 IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1981	0	0	0'	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	73	115	0	0	" 188
1987	102	28	0	0	130
1988	66	3 .	0	0	69
1989	22	3	0	0	25
1990	39	3	0	0	42
1991	26	3	0	0	29
1992	3?	3	3	0	43
1993	30	53	3	0	86
1994	16	0	6	12	34
1995	13	0	6	12	31
1996	10	0	12 ·	12	34
1997	10	30	22	12	74
1998	10	40	34	12	96
1999	10	30	39	12	91
2000	0	0	39	12	51
2001	0	0	39	12	51
2002	0	0	39	12	57
2003	0	0	39	12	51
2004	0	0	39	12	51
2005	0	0	39	12	51.
2006	0	0	39	12	51
2007	0	0	39	12	51
2008	0	0	39	12	51
2009	0	0	39	12	51
2010	0	0	39	12	57

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.921IC--CREATED 11/17/83

TABLE P-76
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	418	0	0	0	418
1985	684	0	0.	0	684
1986	645	0	0	0	645
1987	493	0	0	0	493
1988	220	0	0	0	220
1989	86	0	0	0	86
1990	396	0	0	0	396
1991	260	0	0	0	260
1992	534	0	0	0	534
1993	450	203	0	0	653
1994	125	0	145	9	279
1995	52	0	145	9	206
1996	0	0	226	18	244
1997	90	360	231	18	699
1998	180	720	231	18	1149
1999	90	360	3 4 6	18	814
2000	0	0	356	18	374
2001	0	0	363	18	381
2002	0	0	371	18	389
2003	0	0	371	18	389
2004	0	0	371	18	389
2005	0	0	371	18	389
2006	0	0	371	18	389
2007	0	0	371	18	389
2008	0	0	371	18	389
2009	0	0	371	18	389
2010	0	0	371	18	389

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET CB.92IIC--CREATED 11/17/83

TABLE P-77
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	RESIDENT" PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	-0	0	0	0
1982	-o	0	0	0
1983	-0	0	0	0
1984	-0	97	418	515
1985	-0	76	684	'760
1986	-0	188	645	833
1987	-0	130	493	623
1988	-o	69	220	289
1989	-o	25	86	111
1990	-0	42	396	438
1991	-0	29	260	289
1992	3	40	534	577
1993	3	83	653	739
1994	18	16	279	313
1995	18	13	206	237
1996	24	10	244	278
1997	34	40	699	773
1998	46	50	1149	1245
1999	51	40	814	905
2000	51	0	374	425
2001	51	0	381	432
2002	51	0	389	440 '
2003	51	0	389	440
2004	51	0	389	440
2005	51	0	389	440
2006	51	0	389	440
2007	51	0	389	440
2008	51	0	389	440
2009	51	0	389	440
2010	51	0	389	440

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET CB.921IC--CREATED 11/17/83

TABLE P-78
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALE 92 IMPACT CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	-0	0	0	0	-0
1982	0	-0	0	0	0	-0
1983	0	-0	0	0	0	-0
1984	515	-0	465	50	0	-0
1985	760	-0	760	0	0	-0
1986	833	-0	718	115	0	-0
1987	623	-0	595	28	0	-0
1988	289	-0	286	3	0	-0
1989	111	-0	108	3	0	-0
1990	438	-0	435	3	0	-0
1991	289	-0	286	3	0	-0
1992	577	3	574	3	3	-0
1993	739	3	483	256	3	-0
1994	313	18	292	21	6	12
1995	237	18	216	21	6	12
1996	278	24	248	30	12	12
1997	773	34	353	420	22	12
1998	1245	46	455	790	34	12
1999	905	51	485	420	39	12
2000	425	51	395	30	39	12
2001	432	51	402	30	39	12
2002	440	51	410	30	39	12
2003	440	51	410	30	39	12
2004	440	51	410	30	39	12
2005	440	51	410	30	39	12
2006	440	51	410	30	39	12
2007	440	51	410	30	39	12
2008	440	51	410	30	39	12
2009	440	51	410	30	39	12
2010	440	51	410	30	39	12

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET CB.921IC--CREATED 11/17/83

TABLE P-79
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 ANO 92 COMBINED IMPACT CASE

	RESIDENT POPULATION	NON- PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY
1980					
1981	225	0	0	0	225
1982	226	0	0	0	226
1983	197	0	0	0	197
1984	198	0	97	0	295
1985	186	0	76	0	262
1986	190	0	190	0	380
1987	179	0	132	0	311
1988	171	0	78	0	249
1989	163	0	30	0	193
1990	164	0	63	0	227
1991	162	0	49	0	211
1992	170	0	96	0	266
1993	176	0	167	0	343
1994	224	0	41	0	265
1995	222	0	36	0	258
1996	241	0	10	0	251
1997	261	0	40	0	301
1998	283	0	5 0	0	333
1999	291	0	40	0	331
2000	287	0	0	0	287
2001	289	0	0	0	287
2002	287	0	0	0	287
2003	286	0	0	0	286
2004	286	0	0	0	286
2005	286	0	0	0	286
2006	286	0	0	0	286
2007	286	0	0	0	286
2008	285	0	0	0	285
2009	285	0	0	0	285
2010	285	0	0	0	285

SOURCE: VARIABLES PO, EMENNOPJ, EMENPJ, POML, AND POTO
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-80
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1980		–	–			–	
1981	225	9	215	6	4	139	76
1982	226	10	217	6	4	140	77
1983	197	8	188	5	3	122	67
1984	198	8	190	5	3	123	67
1985	186	8	178	5	3	115	63
1986	190	8	182	5	3	118	64
1987	179	8	172	5	3	111	61
1988	171	7	163	4	3	106	58
1989	163	7	156	4	3	101	55
1990	164	7	157	4	3	101	55
1991	162	7	156	4	3	101	55
1992	170	7	163	4	3	105	58
1993	176	7	168	5	3	109	59
1994	224	9	214	6	4	139	76
1995	222	9	213	6	4	138	75
1996	241	10	231	6	4	149	81
1997	261	11	250	7	4	162	88
1998	283	12	271	7	5	175	96
1999	291	12	278	7	5	180	98
2000	287	12	275	7	5	178	97
2001	287	12	275	7	5	178	97
2002	287	12	274	7	5	178	97
2003	286	12	274	7	5	177	97
2004	286	12	274	7	5	177	97
2005	286	12	274	7	5	177	97
2006	286	12	274	7	5	177	97
2007	286	12	274	7	5	177	97
200$	285	12	273	7	5	177	97
2009	285	12	273	7	5	177	97
2010	285	12	273	7	5	177	96

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-81
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1980	–	–	–	–	–
1981	225	17	32	174	1
1982	226	17	32	176	1
1983	197	15	28	152	1
1984	198	15	28	153	1
1985	186	14	26	144	1
1986	190	15	27	148	1
1987	79	14	26	139	"
1988	71	13	24	132	
1989	63	13	23	126	
1990	64	13	23	127	
1991	62	13	23	126	
1992	?0	13	24	132	
1993	76	14	25	136	
1994	224	17	32	173	1
1995	222	17	32	172	1
1996	241	19	34	187	1
1997	261	20	37	202	1
1998	283	22	40	219	1
1999	291	22	41	225	2
2000	287	22	41	222	2
2001	287	22	41	222	2
2002	287	22	41	222	2
2003	286	22	41	222	2
2004	286	22	41	222	2
2005	286	22	41	222	2
2006	286	22	41	221	2
2007	286	22	41	221	2
2008	285	22	41	221	2
2009	285	22	41	221	2
2010	285	22	41	221	2

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
OSET CB.COMIC--CREATED NOVEMBER 1983

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1980			—	—	—	
1981	225	-3	0	-4	137	-141
1982	226	2	0	1	138	-137
1983	197	-30	0	-30	118	-148
1984	198	1	0	1	121	-120
1985	186	-12	0	-13	113	-125
1986	190	5	0	4	117	-112
1987	179	-11	0	-11	109	-120
1988	171	-9	0	-9	104	-113
1989	163	-8	0	-8	99	-107
1990	164	1	0	1	100	-99
1991	162	-1	0	-1	99	-100
1992	170	8	0	8	104	-97
1993	176	6	0	5	108	-102
1994	224	48	0	48	140	-92
1995	222	-2	0	-2	136	-137
1996	241	18	0	18	148	-130
1997	261	20	0	20	161	-141
1998	283	22	0	21	174	-153
1999	291	8	0	8	178	-170
moo	287	-4	0	-4	175	-179
2001	287	-0	0	-1	175	-176
2002	287	-0	0	-1	175	-175
2003	286	-0	0	-1	175	-175
2004	286	-0	0	-1	175	-175
2005	286	-0	0	-1	175	-175
2006	286	-0	0	-1	174	-175
2007	286	-0	0	-1	174	-175
2008	285	-0	0	-1	174	-175
2009	285	-0	0	-1	174	-175
2010	285	-0	0	-1	174	-175

SOURCE: VARIABLES PO, CHPO, NTIC, IM, IMLA, AND IMDE
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-83
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	RESIDENT EMPLOYMENT	NoN- PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1980	-			-	-
1981	153	0	0	0	153
1982	154	0	0	0	154
1983	134	c1	0	0	134
1984	134	0	97	0	231
1985	126	0	76	0	202
1986	129	0	190	0	319
1987	122	0	132	0	254
1988	116	0	78	0	194
1989	110	0	30	0	140
1990	111	0	63	0	174
1991	110	0	49	0	159
1992	116	0	96	0	212
1993	119	0	167	0	286
1994	152	0	41	0	193
1995	151	0	36	0	187
1996	163	0	10	0	173
1997	177	0	40	0	217
1998	192	0	50	0	242
1999	197	0	40	0	237
2000	195	0	0	0	195
2001	195	0	0	0	195
2002	195	0	0	0	195
2003	194	0	0	0	194
2004	194	0	0	0	194
2005	194	0	0	0	194
2006	194	0	0	0	194
2007	194	0	0	0	194
2008	194	0	0	0	194
2009	194	0	0	0	194
2010	194	0	0	0	194

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-84
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1980	-				
1981	153	6	85 .	62	-0
1982	154	6	85	63	-0
1983	134	6	74	54	-0
1984	134	6	77	51	-0
1985	126	6	73	47	-0
1986	129	6	77	46	-0
1987	122	6	72	44	-0
1988	116	6	66	43	-0
1989	110	6	62	42	-0
1990	111	6	63	42	-0
1991	110	6	62	42	-0
1992	116	6	65	41	3
1993	119	6	69	41	3
1994	152	6	68	42	36
1995	151	6	67	42	36
1996	163	6	68	42	48
1997	177	6	71	42	58
1998	192	6	73	43	70
1999	197	6	73	43	75
2000	195	6	71	43	75
2001	195	6	71	42	75
2002	195	6	71	42	75
2003	194	6	71	42	75
2004	194	6	71	42	75
2005	194	6	71	42	75
2006	194	6	71	42	75
2007	194	6	71	42	75
2008	194	6	71	42	75
2009	194	6	71	42	75
2010	194	6	71	41	75

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-85
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1980	-			-
1981	6	0	' 6"	0
1982	6	0	6	0
1983	6	0	6	0
1984	6	0	6	0
1985	6	0	6	0
1986	6	0	6	0
1987	6	0	6	0
1988	6	0	6	0
1989	6	0	6	0
1990	6	0	6	0
1991	6	0	6	0
1992	6	0	6	0
1993	6	0	6	0
1994	6	0	6	0
1995	6	0	6	0
1996	6	0	6	0
1997	6	0	6	0
1998	6	0	6	0
1999	6	0	6 ,	0
2000	6	0	6	0
2001	6	0	6	0
2002	6	0	6	0
2003	6	0	6	0
2004	6	0	6	0
2005	6	0	6	0
2006	6	0	6	0
2007	6	0	6	0
2008	6	0	6	0
2009	6	0	6	0
2010	6	0	6	0

SOURCE: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
OSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-86
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORELI RESIDENT SUPPORT EMPLOYMENT
1980		--			--
1981	85	14	0	71	0
1982	85	14	0	71	0
1983	74	12	0	62	0
1984	77	12	0	60	5
1985	73	11	0"	58	4
1986	77	12	0	56	10
1987	72	11	0	5 4	7
1988	66	10	0	52	4
1989	62	10	0	51	2
1990	63	10	0	50	3
1991	62	10	0	50	2
1992	65	11	0	50	5
1993	69	11	0	50	8
1994	68	15	0	50	2
1995	67	15	0	50	2
1996	68	17	0	50	1
1997	71	19	0	50	2
1998	73	21	0	50	3
1999	73	21	0	50	2
2000	71	21	0	50	0
2001	71	21	0	50	0
2002	71	21	0	50	0
2003	71	21	0	50	0
2004	71	21	0	50	0
2005	71	21	0	50	0
2006	71	21	0	50	0
2007	71	21	0	50	0
2008	71	21	0	50	0
2009	71	21	0	50	0
2010	71	21	0	50	0

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET CB.COMIC--CREATED NOVEMBER 1983

TAt3LE P-87
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1980	-		
1981	62	8	54 "
1982	63	9	54
1983	54	8	46
1984	51	8	43
1985	47	8	39
1986	46	8	38
1987	44	7	37
1988	43	7	36
1989	42	7	35
1990	42	7	35
1991	42	7	35
1992	41	6	35
1993	41	6	35
1994	42	7	35
1995	42	7	35
1996	42	7	35 "
1997	42	7	35
1998	43	8	35
1999	43	8	35
2000	43	8	35
2001	42	7	35
2002	42	7	35
2003	42	7	35
2004	42	7	35
2005	42	7	35
2006	42	7	35
2007	42	7	35
2008	42	7	35
2009	42	7	35
2010	41	6	35

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-88
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT
1980		—	—		—
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	47	50	0	0	97
1985	76	0	0	0	76
1986	71	119	0	0	190
1987	100	32	0	0	132
1988	71	7	0	0	78
1989	23	7	0	0	30
1990	56	7	0	0	63
1991	42	7	0	0	49
1992	89	7	3	0	99
1993	76	91	3	0	170
19!34	41	0	12	24	77
1995	36	0	12	24	72
1996	10	0	24	24	58
1997	10	30	34	24	98
1998	10	40	46	24	120
1999	10	30	51	24	115
2000	0	0	51	24	75
2001	0	0	51	2'4	75
2002	0	0	51	24	75
2003	0	0	51	24	75
2004	0	0	51	24	75
2005	0	0	51	24	75
2006	0	0	51	24	75
2007	0	0	51	24	75
200$	0	0	51	24	75
2009	0	0	51	24	75
2010	0	0	51	24	75

SOURCE: VARIABLES EMPSONSK. EMPSONNS. EMPLONSK, EMPLONNS, AND EMPJON
DSET CB.COMIC--CREATED NOVEMBER 1983

TABLE P-91
RURAL ALASKA MODEL PROJECTIONS
COLD BAY
SALES 89 AND 92 COMBINED IMPACT CASE

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1980						
1981	0	-0	0"	0	0	-0
1982	0	-0	0	0	0	-0
1983	0	-0	0	0	0	-0
1984	515	-0	465	50	0	-0
1985	760	-0	760	0	0	-0
1986	836	-0	717	119	0	-0
1987	626	-0	594	32	0	-0
1988	345	-0	338	7	0	-0
1989	140	-0	133	7	0	-0
1990	688	-0	681	7	0	-0
1991	494	-0	487	7	0	-0
1992	1120	3	1113	7	3	-0
1993	1748	3	1054	694	3	-0
1994	634	36	592	42	12	24
1995	545	36	503	42	12	24
1996	535	48	475 -	60	24	2 4
1997	1035	58	585	450	3 4	24
1998	1507	70	687	820	46	24
1999	1172	75	722	450	51	24
2000	697	75	637	60	51	24
2001	704	75	644	60	51	24
2002	717	75	657	60	51	24
2003	717	75	657	60	51	24
2004	717	75	657	60	51	24
2005	717	75	657	60	51	24
2006	717	75	657	60	51	24
2007	717	75	657	60	51	24
2008	717	?5	657	60	51	24
2009	717	75	657	60	5 1	24
2010	717	75	657	60	51	24

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, ANO MREPJNS
DSETCB.COMIC--CREATED NOVEMBER 1983

TABLE P-92
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
TOTAL POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	225	225	0	0.00
1982	226	226	0	0.00
1983	197	197	0	0.00
1984	295	295	0	0.00
1985	262	262	0	0.00
1986	298	325	27	9.14
1987	296	305	9	2.94
1988	218	234	16	7.48
1989	171	183	12	7.01
1990	169	198	29	17.38
1991	169	191	22	12.89
1992	167	228	61	36.35
1993	167	258	91	54.72
1994	166	226	59	35.72
1995	166	223	57	34.46
1996	174	217	43	24.52
1997	224	267	43	19.01
1998	256	299	43	16.62
1999	254	297	43	16.75
2000	211	253	43	20.20
2001	210	253	43	20.20
2002	210	253	42	20.20
2003	210	253	42	20.20
2004	210	252	42	20.20
2005	210	252	42	20.20
2006	210	252	42	20020
2007	210	252	42	20.20
2008	209	252	42	20.20
2009	209	252	42	20.20
2010	209	252	42	20.20

VARIABLE: POTO
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.89IIC--CREATED 11/17/83

TABLE P-93
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	225	225	0	0.00
1982	226	226	0	0.00
1983	197	197	o	0.00
1984	198	198	0	0.00
1985	186	186	0	0.00
1986	184	1 86	2	1.21
1987	178	179	1	0.39
1988	168	169	1	0.78
1989	161	162	1	0.60
1990	159	161	2	1.48
1991	159	161	2	1.11
1992	157	162	5	3.05
1993	157	164	7	4.61
1994	156	191	34	22.03
1995	156	190	34	21.91
1996	164	207	43	26.01
1997	184	227	43.	23.13
1998	206	249	43	20.65
1999	214	257	43	19.88
2000	211	253	43	20.20
2001	210	253	4 3	20.20
2002	210	253	42	20* 20
2003	210	253	42	20.20
2004	210	252	42	20.20
2005	210	252	42	20.20
2006	210	252	42	20.2(9
2007	210	2-52	42	20.20
2008	209	252	42	20.20
2009	209	252	42	20.20
2010	209	252	42	20.20

VARIABLE: PO
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.89IIC--CREATED 11/17/83

TABLE P-94
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
SCHOOL-AGE POPULATION
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	32	32	0	0.00
1982	32	32	0	0.00
1983	28	28	0	0.00
1984	28	28	63	0.00
1985	26	26	0	0.00
1986	26	27	0	1.20
1987	25	25	0	0.40
1988	24	24	0	0.78
1989	23	23	0	0.60
1990	23	23	0	1.47
1991	23	23	0	1.11
1992	22	23	1	3.05
1993	22	23	1	4.61
1994	22	27	5	22.00
1995	22	27	5	21.91
1996	23	29	6	26.00
1997	26	32	6	23.14
1998	29	35	6	20.65
1999	31	37	6	19.88
2000	30	36	6	20.20
2001	30	36	6	20.20
2002	30	36	6	20.20
2003	30	36	6	20.20
2004	30	36	6	20.20
2005	30	36	6	20.20
2006	30	36	6	20.20
2007	30	36	6	20.20
2008	30	36	6	20.20
2009	30	36	6	20.20
2010	30	36	6	20.20

VARIABLE: POSL
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.891IC--CREATED 11/17/83

TABLE P-95
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT EMPLOYMENT
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	153	153	0	0.00
1982	154	54	0	0.00
1983	134	34	0	0.00
1984	134	34	0	0.00
1985	126	26	0	0.00
1986	125	26	1	1.20
1987	121	21	0	0.39
1988	114	15	1	0.78
1989	109	10	1	0.60
1990	108	10	2	1.48
1991	108	09	1	1.10
1992	107	10	3	3.07
1993	106	11	5	4.62
1994	106	30	23	22.00
1995	106	29	23	21.90
1996	111	40	29	26.01
1997	125	54	29	23.14
1998	140	69	29	20.65
1999	145	74	29	19.88
2000	143	72	29	20.20
2001	143	72	29	20.20
2002	143	72	29	20.20
2003	143	72	29	20.20
2004	143	71	29	20.20
2005	143	71	29	20.20
2006	142	71	29	20.20
2007	142	71	29	20.20
2008	142	71	29	20.20
2009	142	71	29	20.20
2010	142	71	29	20.20

VARIABLE: EMRETO
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.89IIC--CREATED 11/17/83

TABLE P-96
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	85	85	0	0.00
1982	85	85	0	0.00
1983	74	74	0	0.00
1984	77	77	0	0.00
1985	73	73	0	0.00
1986	73	74	1	1.91
1987	71	71	0	0.63
1988	65	66	1	1.29
1989	61	62	1	1.00
1990	60	62	2	2.50
1991	60	61	1	1.85
1992	60	63	3	5.18
1933	60	65	5	7.78
1994	60	64	4	7.06
1995	60	64	4	6.87
1996	61	65	4	6.22
1997	64	68	4	5.90
1998	66	70	4	5.68
1999	67	70	4	5.66
2000	64	68	4	5.85
2001	64	68	4	5.85
2002	64	68	4	5.85
2003	64	68	4	5.85
2004	64	68	4	5.84
2005	64	68	4	5.84
2006	64	68	4	5.84
2007	64	68	4	5.84
2008	64	68	4	5.84
2009	64	68	4	5.84
2010	64	68	4	5.84

VARIABLE: **EMSU**
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.891IC--CREATED 11/17/83

TABLE P-97
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT GOVERNMENT EMPLOYMENT
COMPARISON OF SALE 89 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	62	62	0	0.00
1982	63	63	0	0.00
1983	54	54	0	0.00
1984	51	51	0	0.00
1985	47	47	0	0.00
1986	46	46	0	0.22
1987	44	44	0	0.06
1988	43	43	0	0.13
1989	42	42	0	0.10
1990	42	42	0	0.23
1991	42	42	0	0.18
1992	41	41	0	0.41
1993	40	41	0	0.60
1994	40	41	1	2.84
1995	40	41	1	2.63
1996	40	41	1	3.05
1997	40	41	1.	2.96
1998	41	42	1	2.84
1999	41	42	1	2.81
2000	41	42	1	2.78
2001	40	42	1	2.74
2002	40	41	1	2.70
2003	40	41	1	2.65
2004	40	41	1	2.62
2005	40	41	1	2.59
2006	40	41	1	2.55
2007	40	41	1	2.52
2008	40	41	1	2.48
2009	40	41	1	2.45
2010	40	41	1	2.42

VARIABLE: EMGO
SOURCE: DSETS CB.89MBC--CREATED 11/17/83 AND
CB.89IIC--CREATED 11/17/83

TABLE P-98
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
TOTAL POPULATION
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	225	225	0	0.00
1982	226	226	0	0.00
1983	197	197	0	0.00
1984	295	295	0	0.00
1985	262	262	0	0.00
1986	323	378	55	17.18
1987	303	309	7	2.15
1988	225	239	14	6.29
1989	177	187	10	5.52
1990	175	204	28	16.10
1991	169	190	21	12.24
1992	167	205	38	22.70
1993	167	251	85	50.77
1994	167	205	39	23.30
1995	166	201	35	21.36
1996	174	208	34	19.41
1997	224	258	34	15.05
1998	256	290	34	13.16
1999	254	288	34	13.26
2000	211	244	34	15.99
2001	211	244	34	15.99
2002	210	244	34	15.99
2003	210	244	34	15.99
2004	210	244	34	15.99
2005	210	244	34	15.99
2006	210	243	34	15.99
2007	210	243	34	15.99
2008	210	243	34	15.99
2009	209	243	34	15.99
2010	209	243	33	15.99

VARIABLE: POTO
SOURCE: DSETS CB.92MBC—CREATED 11/17/83 AND
CB.92IIC—CREATED 11/17/83

TABLE P-99
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT POPULATION
COMPARISON OF SALE 92 BASE ANO IMPACT CASES

	BASE CASE	INPACT CASE	DIFFERENCE	PERCENT DIFFERENCE		
1981	225	225	0	0.00		
1982	226	226	0	0.00		
1983	197	197	0	0.00		
1984	198	198	0	0.00		
1985	186	186	0	0.00		
1986	186	190	4	2.41		
1987	79	179	1	0.29		
1988	69	170	1	0	6	8
1989	61	162	1	0.49		
1990	59	162	2	1.41		
1991	59	161	2	1.05		
1992	57	165	8	5.07		
1993	57	168	12	7.45		
1994	57	189	33	20.96		
1995	156	188	32	20.80		
1996	164	198	34	20.59		
1997	184	218	34.	18.32		
1998	206	240	34	16.35		
1999	214	248	34	15.74		
2000	211	244	34	15.99		
2001	211	244	34	15.99		
2002	210	244	34	15.99		
2003	210	244	34	15.99		
2004	210	244	34	15.99		
2005	210	244	34	15.99		
2006	210	243	34	15.99		
2007 "	210	243	34	15.99		
2008	210	243	34	15.99		
2009	209	243	34	15.99		
2010	209	243	33	15.99		

VARIABLE: PO
SOURCE: DSETS CB.92MBC--CREATED 11/17/83 AND
CB.921IC--CREATED 11/17/83

TABLE P-100
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
SCHOOL-AGE POPULATION
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	32	32	0	0.00
1982	32	32	0	0.00
1983	28	28	0	0.00
1984	28	28	0	0.00
1985	26	26	0	0.00
1986	27	27	1	2.40
1987	25	26	0	0.29
1988	24	24	0	0.68
1989	23	23	0	0.49
1990	23	23	0	1.41
1991	23	23	0	1.05
1992	22	24	1	5.07
1993	22	24	2	7.45
1994	22	27	5	20.94
1995	22	27	5	20080
1996	23	28	5	20.59
1997	26	31	5	18.32
1998	29	34	5	16.35
1999	31	35	5	15.74
2000	30	35	5	15.99
2001	30	35	5	15.99
2002	30	35	5	15.99
2003	30	35	5	15.99
2004	30	35	5	15.99
2005	30	35	5	15.99
2006	30	35	5	15.99
2007	30	35	5	15.99
2008	30	35	5	15.99
2009	30	35	5	15.99
2010	30	35	5	15.99

VARIABLE: POSL
SOURCE: DSETS CB.92MBC--CREATED 11/17/83 AND
CB.921IC--CREATED 11/17/83

TABLE P-101
RURAL ALASKA MODEL INPACT PROJECTIONS
COLD BAY
RESIDENT EMPLOYMENT
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	153	153	0	0.00
1982	154	154	0	0.00
1983	134	134	o	0.00
1984	134	134	0	0.00
1985	126	126	0	0.00
1986	126	129	3	2.40
1987	121	122	0	0.29
1988	115	115	1	0.68
1989	110	110	1	0.49
1990	108	110	2	1.42
1991	108	109	1	1.05
1992	107	112	5	5.08
1993	106	114	8	7.46
1994	106	129	22	20.95
1995	106	128	22	20.79
1996	111	134	23	20.59
1997	125	148	23	18.32
1998	140	163	23"	16.35
1999	145	168	23	15.74
2000	143	166	23	15.99
2001	143	166	23	15.99
2002	143	166	23	15.99
2003	143	166	23	15.99
2004	143	165	23	15.99
2005	143	165	23	15.99
2006	142	165	23	15.99
2007	142	165	23	15.99
2008	142	165	23	15.99
2009	142	165	23	15.99
2010	142	165	23	15.99

VARIABLE: EMRETO
SOURCE: DSETS CB.92MBC--CREATED 11/17/83 AND
CB.921IC--CREATED 11/17/83

TABLE P-102
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	85	85	0	0.00
1982	85	85	0	0.00
1983	74	74	0	0.00
1984	77	77	0	0.00
1985	73	73	0	0.00
1986	74	77	3	3.83
1987	71	72	0	0.47
1988	65	66	1	1.11
1989	62	62	1	0.81
1990	61	62	1	2.39
1991	60	61	1	1.76
1992	60	62	2	3.57
1993	60	65	5	7.56
1994	60	63	3	5.30
1995	60	63	3	5.01
1996	61	64	3	4.92
1997	64	67	3	4.67
1998	66	69	3	4.50
1999	67	70	3	4.48
2000	64	67	3	4.63
2001	64	67	3	4.63
2002	64	67	3	4.63
2003	64	67	3	4.63
2004	64	67	3	4.63
2005	64	67	3	4.63
2006	64	67	3	4.62
2007	64	67	3	4.62
2008	64	67	3	4.62
2009	64	67	3	4.62
2010	64	67	3	4.62

VARIABLE: EMSU
SOURCE: DSETS CB.92MBC--CREATED 11/17/83 AND
CB.921IC--CREATED 11/17/83

TABLE P-103
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDEN GOVERNMEN EMPLOYMEN4
M :SoN OF SALE 92 BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	62	62	0	0.00
1982	63	63	0	0.00
1983	54	54	0	0.00
1984	51	51	0	0.00
1985	47	47	0	0.00
1986	46	46	0	0.00
1987	44	44	0	0.41
1988	43	43	0	0.05
1989	42	42	0	0.12
1990	42	42	0	0.08
1991	42	42	0	0.22
1992	41	42	0	0.17
1993	40	41	0	0.70
1994	40	41	1	0.98
1995	40	41	1	2.70
1996	40	41	1	2.49
1997	40	41	1	2.42
1998	41	41	1	2.34
1999	41	42	1	2.25
2000	41	42	1	2.23
2001	40	41	1	2.20
2002	40	41	1	2.17
2003	40	41	1	2.14
2004	40	41	1	2.10
2005	40	41	1	2.07
2006	40	41	1	2.05
2007	40	41	1	2.02
2008	40	41	1	1.99
2009	40	41	1	1.97
2010	40	41	1	1.94

TABLE P-104
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
TOTAL POPULATION
COMPARISON OF COMBINED SALES BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	225	225	0	0.06
1982	226	226	0	0.05
1983	197	197	0	0.06
1984	295	295	0	0.03
1985	262	262	0	0.04
1986	298	380	83	27.80
1987	296	311	15	5.17
1988	218	249	31	14.01
1989	171	193	22	12.79
1990	169	227	58	34.16
1991	169	211	43	25.19
1992	167	266	99	59.14
1993	167	343	176	105.59
1994	166	265	98	59.10
1995	166	258	93	55.86
1996	174	251	77	43.99
1997	224	301	77	34.11
1998	256	333	76	29.83
1999	254	331	76	30.07
2000	211	287	76	36.26
2001	210	287	76	36.26
2002	210	287	76	36.26
2003	210	286	76	36.26
2004	210	286	76	36.26
2005	210	286	76	36.26
2006	210	286	76	36.26
2007	210	286	76	36.26
2008	209	285	76	36.26
2009	209	285	76	36.26
2010	209	285	76	36.26

VARIABLE: POTO
SOURCE: DSETS CB.89MBC--CREATED NOVEMBER 1983 AND
CB.COMIC--CREATED NOVEMBER 1983

TABLE P-105
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT POPULATION
COMPARISON OF COMBINED SALES BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	225	225	0	0.06
1982	226	226	0	0.05
1983	197	197	0	0.06
1984	198	198	0	0.05
1985	186	186	0	0.05
1986	184	190	7	3.69
1987	178	179	1	0.73
1988	168	171	-3	1.52
1989	161	163	2	1.14
1990	159	164	5	2.95
1991	159	162	4	2.22
1992	157	170	13	8.22
1993	157	176	19	12.14
1994	156	224	67	43.06
1995	156	222	67	42.75
1996	164	241	77	46.67
1997	184	261	77	41.51
1998	206	283	76	37.06
1999	214	291	76	35.68
2000	211	287	76	36.26
2001	210	287	76	36.26
2002	210	287	76	36.26
2003	210	286	76	36.26
2004	210	286	76	36.26
2005	210	286	76	36.26
2006	210	286	76	36.26
2007	210	286	76	36.26
2008	209	285	76	36.26
2009	209	285	76	36.26
2010	209	285	76	36.26

VARIABLE: PO
SOURCE: DSETS CB.89MBC--CREATED NOVEMBER 1983 AND
CB.COMIC--CREATED NOVEMBER 1983

TABLE P-106
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
SCHOOL-AGE POPULATION
COMPARISON OF COMBINED SALES BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	32	32	0	0.06
1982	32	32	0	0.05
1983	28	28	0	0.06
1984	28	28	0	0.05
1985	26	26	0	0.05
1986	26	27	1	3.68
1987	25	26	0	0.74
1988	24	24	0	1.51
1989	23	23	0	1.14
1990	23	23	1	2.94
1991	23	23	1	2.22
1992	22	24	2	8.21
1993	22	25	3	12.14
1994	22	32	10	43.01
1995	22	32	9	42.75
1996	23	34	11	46.66
1997	26	37	11	41.52
1998	29	40	11	37.06
1999	31	41	11	35.68
2000	30	41	11	36.26
2001	30	41	11	36.26
2002	30	41	11	36.26
2003	30	41	11	36.26
2004	30	41	11	36.26
2005	30	41	11	36.26
2006	30	41	11	36.26
2007	30	41	11	36.26
2008	30	41	11	36.26
2009	30	41	11	36.26
2010	30	41	11	36.26

TABLE P-107
RURAL ALASKA MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT EMPLOYMENT
COMPARISON OF COMBINED SALES BASE AND IMPACT CASES

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	153	153	0	0.00
1982	154	154	0	0.00
1983	134	134	0	0.00
1984	134	134	0	0.00
1985	126	126	0	0.00
1986	125	129	5	3.63
1987	121	122	1	0.69
1988	114	116	2	1.47
1989	109	110	1	1.09
1990	108	111	3	2.91
1991	108	110	2	2.16
1992	107	116	9	8.17
1993	106	119	13	12.09
1994	106	152	46	42.96
1995	106	151	45	42.68
1996	111	163	52	46.60
1997	125	177	52	41.46
1998	140	192	52	37.01
1999	145	197	52	35.62
2000	143	195	52	36.20
2001	143	195	52	36.20
2002	143	195	52	36.20
2003	143	194	52	36.20
2004	143	194	52	36.20
2005	143	194	52	36.20
2006	142	194	52	36.20
2007	142	194	52	36.20
2008	142	194	52	36.20
2009	142	194	51	36.20
2010	142	194	51	36.20

VARIABLE: EMRETO
SOURCE: DSETS CB.89MBC--CREATED NOVEMBER 1983 AND
CB.COMIC--CREATED NOVEMBER 1983

TABLE P-108
RURAL M-ASS(A MODEL IMPACT PROJECTIONS
COLD BAY
RESIDENT SUPPORT EMPLOYMENT

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	85	85	0	0.00
1982	85	85	0	0.00
1983	74	74	0	0.00
1984	77	77	0	0.00
1985	73	73	0	0.00
1986	73	77	4	5.81
1987	71	72	1	1.10
1988	65	66	2	2.41
1989	61	62	1	1.82
1990	60	63	3	4.90
1991	60	62	2	3.62
1992	60	65	5	8.76
1993	60	69	9	15.34
1994	60	68	7	12.36
1995	60	67	7	11.87
1996	61	68	7	11.14
1997	64	71	7	10.57
1998	66	73	7	10.17
1999	67	73	7	10.14
2000	64	71	7	10.48
2001	64	71	7	10.48
2002	64	71	7	10.48
2003	64	71	7	10.48
2004	64	71	7	10.47
2005	64	71	7	10.47
2006	64	71	7	10.47
2007	64	71	7	10.46
2008	64	71	7	10.46
2009	64	71	7	10.46
2010	64	71	7	10.46

VARIABLE: EMSU
SOURCE: DSETS CB.89MBC--CREATED NOVEMBER 1983 AND
CB.COMIC--CREATED NOVEMBER 1983

TABLE P-109
RURAL ALASKA MODEL IMPACT' PROJECTIONS
COLD BAY
RESIDENT GOVERNMENT EMPLOYMENT

	BASE CASE	IMPACT CASE	DIFFERENCE	PERCENT DIFFERENCE
1981	62	62	0	0.01
1982	63	63	0	0.01
1983	54	54	0	0.01
1984	51	51	0	0.01
1985	47	47	0	0.01
1986	46	46	0	0.64
1987	44	44	0	0.12
1988	43	43	0	0.26
1989	42	42	0	0.19
1990	42	42	0	0.46
1991	42	42	0	0.36
1992	41	41	0	1.14
1993	40	41	1	1.60
1994	40	42	2	5.55
1995	40	42	2	5.10
1996	40	42	2	5.48
1997	40	42	2	5.30
1998	41	43	2	5.09
1999	41	43	2	5.05
2000	41	43	2	4.99
2001	40	42	2	4.92
2002	40	42	2	4.84
2003	40	42	2	4.77
2034	40	42	2	4.70
2005	40	42	2	4.64
2006	40	42	2	4.58
2007	40	42	2	4.52
2008 "	40	42	2	4 . 4 5
2009	40	42	2	4.40
2010	40	41	2	4.33

e

VARIABLE: EMGO
SOURCE: DSETS CB.89MBC--CREATED NOVEMBER 1983 AND
CB.COMIC--CREATED NOVEMBER 1983

TABLE P-110
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
RESIDENT POPULATION
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	225	225	225
1982	226	226	226
1983	197	197	229
1984	189	198	243
1985	179	186	245
1986	174	1 Ei4	251
1987	168	178	254
1988	? 64	168	253
1989	160	161	253
1990	156	159	256
1991	1 53	159	259
1992	1 4$	157	260
1993	144	157	2&3
1994	142	156	266
1995	140	156	268
1996	137	164	279
1997	136	184	303
1998	134	206	328
1999	132	214	339
2000	130	211	339
2001	130	210	342
2002	130	210	'345
2003	130	210	348
2004	130	210	351
2005	130	210	354
2006	130	210	357
2007	130	210	360
2008	130	209	364
2009	1 29	209	367
2010	129	209	370

SOURCE': VARIABLE PO, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC AND CB.89HBC

TABLE P-111
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
SCHOOL-AGE POPULATION
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	32	32	32
1982	32	32	32
1983	28	28	33
1984	27	28	35
1985	26	26	35
1986	25	26	36
1987	24	25	36
1988	23	24	36
1989	23	23	36
1990	22	23	36
1991	22	23	37
1992	21	22	37
1993	21	22	37
1994	20	22	38
1995	20	22	38
1996	20	23	40
1997	19	26	43
1998	19	29	47
1999	19	31	48
2000	19	30	48
2001	19	3 0	49
2002	19	30	49
2003	19	30	50
2004	19	30	50
2005	19	30	51
2006	18	30	51
2007	18	30	51
2008	18	30	52
2009	18	30	52
2010	18	30	53

SOURCE: VARIABLE POSL, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC AND CB.89HBC

TABLE P-112
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
RESIDENT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	153	153	153
1982	154	154	154
1983	134	134	156
1984	129	134	" 165
1985	122	126	166
1986	118	125	171
1987	114	121	173
1988	111	114	172
1989	109	109	172
1990	106	108	174
1991	104	108	176
1992	100	107	177
1993	98	106	178
1994	96	106	180
1995	95	106	182
1996	93	111	190
1997	92	125	205
1998	91	140	222
1999	90	145	230
2000	88	143	230
2001	88	143	232
2002	88	143	234
2003	88	143	236
2004	88	143	238
2005	88	143	241
2006	88	142	243
2007	88	142	245
2008	88	142	247
2009	88	142	249
2010	88	142	251

SOURCE: VARIABLE EMRETO, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC AND CB.89HBC

TABLE P-113
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
RESIDENT BASIC EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	6	6	6
1982	6	6	6
1983	6	6	8
1984	6	6	10
1985	6	6	12
1986	6	6	14
1987	6	6	16
1988	6	6	18
1989	6	6	20
1990	6	6	22
1991	6	6	24
1992	6	6	26
1993	6	6	28
1994	6	6	30
1995	6	6	32
1996	6	6	34
1997	6	6	36
1998	6	6	38
1999	6	6	40
2000	6	6	42
2001	6	6	44
2002	6	6	46
2003	6	6	48
2004	6	6	50
2005	6	6	52
2006	6	6	54
2007	6	6	56
2008	6	6	58
2009	6	6	60
2010	6	6	62

SOURCE: VARIABLE EMBA, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC ANO CB.89HBC

TABLE P-114
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
RESIDENT SUPPORT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, AND HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	85	85	85
1982	85	85	85
1983	74	74	85
1984	72	77	- 91
1985	69	73	90
1986	67	73	92
1987	64	71	92
1988	62	65	89
1989	61	61	87
1990	60	60	87
1991	58	60	87
1992	57	60	87
1993	56	60	87
1994	55	60	88
1995	54	60	88
1996	52	61	89
1997	51	64	92
1998	50	66	95
1999	49	67	95
2000	48	64	93
2001	48	64	93
2002	48	64	93
2003	48	64	93
2004	48	64	94
2005	48	64	94
2006	48	64	94
2007	48	64	94
2008	48	64	94
2009	48	64	95
2010	48	64	95

SOURCE: VARIABLE EMSU, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC AND CB.89HBC

TABLE P-115
SENSITIVITY OF PROJECTIONS
TO ASSUMPTIONS: COLD BAY
RESIDENT GOVERNMENT EMPLOYMENT
COMPARISON OF LOW, MEDIUM, ANO HIGH
SALE 89 BASE CASES

	PROJECTIONS WITH LOW-GROWTH ASSUMPTIONS	PROJECTIONS WITH ASSUMPTIONS USED IN STUDY	PROJECTIONS WITH HIGH-GROWTH ASSUMPTIONS
1981	62	62	62
1982	63	63	63
1983	54	54	63
1984	51	51	64
1985	47	47	64
1986	45	46	65
1987	44	44	64
1988	43	43	65
1989	42	42	65
1990	41	42	65
1991	39	42	65
1992	37	41	63
1993	36	40	63
1994	36	40	63
1995	35	40	62
1996	35	40	62
1997	35	40	62
1998	35	41	63
1999	35	41	63
2000	34	41	63
2001	34	40	63
2002	34	40	63
2003.	34	40	63
2004	34	40	63
2005	34	40	63
2006	34	40	63
2007	34	40	63
2008	34	40	63
2009	34	40	62
2010	34	40	62

SOURCE: VARIABLE EMGO, STUDY CASE DSET CB.89MBC,
LOW AND HIGH CASE DSETS CB.89LBC AND CB.89HBC

Appendix Q

Sand Point RAM Model Projections

Sand Point RAM Model Projections

TABLE Q-1.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	RESIDENT POPULATION	NON-PROJECT ENCLAVE POPULATION	PROJECT ENCLAVE POPULATION	MILITARY ENCLAVE POPULATION	TOTAL POPULATION INCLUDING ENCLAVES AND MILITARY -
1981	640	55	0	0	694
1982	654	55	0	0	709
1983	668	56	0	0	724
1984	682	56	0	0	738
1985	695	57	0	0	752
1986	724	57	-0	0	781
1987	737	58	0	0	795
1988	757	58	-0	0	815
1989	769	59	0	0	828
1990	782	60	-0	0	841
1991	797	60	-0	0	858
1992	809	61	0	0	870
1993	821	61	0	0	883
1994	833	62	0	0	895
1995	845	63	0	0	907
1996	856	63	0	0	920
1997	868	64	0	0	932
1998	880	65	0	0	945
1999	892	65	0	0	957
2000	904	66	0	0	970
2001	917	67	0	0	983
2002	929	67	0	0	996
2003	942	68	0	0	1010
2004	955	69	0	0	1023
2005	968	69	0	0	1037
2006	981	70	0	0	1051
2007	995	71	0	0	1065
2008	1009	71	0	0	1080
2009	1023	72	0	0	1095
2010	1037	73	0	0	1110

	RESIDENT POPU-LATION	NATIVE POPU-LATION	NON-NATIVE POPU-LATION	NATIVE MALE POPU-LATION	NATIVE FEMALE POPU-LATION	NON-NATIVE MALE POPU-LATION	NON-NATIVE FEMALE POPU-LATION
1981	640	365	274	193	172	154	120
1982	654	374	280	197	177	157	123
1983	668	382	286	201	181	159	126
1984	682	391	291	205	186	162	129
1985	695	399	296	209	190	164	132
1986	724	407	317	2 1 3	195	175	141
1987	737	416	321	217	199	177	144
1988	757	424	333	220	204	183	149
1989	769	433	337	224	208	185	152
1990	782	441	341	228	213	187	154
1991	797	450	348	232	218	190	158
1992	809	458	351	236	222	191	160
1993	821	467	354	240	227	192	162
1994	833	476	357	244	232	193	163
1995	845	485	359	248	237	194	165
1996	856	494	362	252	242	195	167
1997	868	504	364	257	247	196	168
1998	880	514	367	261	253	197	170
1999	892	523	369	266	258	198	171
2000	904	533	371	270	263	198	173
2001	917	544	373	275	269	199	174
2002	929	554	375	280	274	199	175
2003	942	565	377	285	280	200	177
2004	955	576	378	290	286	200	178
2005	968	587	380	295	292	201	179
2006	981	599	382	301	298	202	180
2007	995	611	384	306	305	202	182
2008	1009	623	385	312	311	203	183
2009	1023	636	387	318	318	203	184
2010	1037	648	389	324	324	204	185

SOURCE: VARIABLES PO, PONA, PONN, PONAMA, PONAFE,
PONNMA, AND PONNFE
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-3.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	RESIDENT POPULATION	PRE-SCHOOL AGE (0-4)	SCHOOL AGE (5-18)	ADULT (19-64)	SENIOR (65+)
1981	640	65	160	398	16
1982	654	72	159	405	19
1983	668	77	160	410	21
1984	682	81	162	415	23
1985	695	85	166	419	25
1986	724	89	173	435	27
1987	737	91	178	439	30
1988	757	94	184	448	32
1989	769	95	190	451	34
1990	782	97	196	454	35
1991	797	98	202	460	37
1992	809	100	208	463	39
1993	821	101	214	466	40
1994	833	102	219	470	42
1995	845	103	225	4'73	43
1996	856	104	230	477	45
1997	868	106	235	482	46
1998	880	107	240	486	47
1999	892	108	245	491	48
2000	904	110	250	495	49
2001	917	111	255	500	50
2002	929	113	259	506	51
2003	942	115	264	511	52
2004	955	116	269	517	53
2005	968	118	.273	523	54
2006	981	120	278	529	55
2007	995	122	282	535	56
2008	100!3	124	287	541	56
2009	1023	126	292	548	-57
2010	1037	128	297	555	58

SOURCE: VARIABLES PO, POKD, POSL, POAT, AND POGE
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-4.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	RESIDENT POPULATION	CHANGE IN RESIDENT POPULATION	NATURAL INCREASE	NET MIGRATION	NET MIGRATION OF WORKERS	NET MIGRATION OF DEPENDENTS
1981	640	15	16	-2	0	-2
1982	654	14	16	-2	0	-2
1983	668	14	16	-2	0	-2
1984	682	14	16	-2	0	-2
1985	695	13	16	-3	0	-3
1986	724	29	16	13	11	3
1987	737	13	16	-3	0	-3
1988	757	20	16	4	5	-i
1989	769	12	16	-4	0	-4
1990	782	13	16	-3	0	-4
1991	797	15	16	-1	2	-3
1992	809	12	16	-4	0	-4
1993	821	12	16	-4	0	-4
1994	833	12	16	-4	0	-4
1995	845	12	16	-5	0	-5
1996	856	12	17	-5	0	-5
1997	868	12	17	-5	0	-5
1998	880	12	17	-5	0	-5
1999	892	12	17	-5	0	-5
2000	904	12	17	-5	0	-5
2001	917	12	18	-5	0	-5
2002	929	12	18	-5	0	-5
2003	942	13	18	-6	0	-6
2004	955	13	19	-6	0	-6
2005	968	13	19	-6	0	-6
2006	981	13	19	-6	0	-6
2007	995	14	19	-6	0	-6
2008	1009	14	20	-6	0	-6
2009	1023	14	20	-6	0	-6
2010	1037	14	21	-6	0	-6

SOURCE: VARIABLES PO, CHPO, NTIC, IM, IMLA, ANO IMDE
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-5.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	RESIDENT EMPLOYMENT	NON- PROJECT ENCLAVE EMPLOYMENT	PROJECT ENCLAVE EMPLOYMENT (ONSHORE ONLY)	MILITARY ENCLAVE EMPLOYMENT	TOTAL EMPLOYMENT INCLUDING ENCLAVES AND MILITARY
1981	259	55	0	0	313
1982	270	55	0	0	325
1983	263	56	0	0	319
1984	273	56	0	0	329
1985	267	57	0	0	324
1986	291	57	-0	0	348
1987	289	58	0	0	347
1988	300	58	-0	0	359
1989	300	59	0	0	359
1990	303	60	-0	0	363
1991	306	60	-0	0	367
1992	298	61	0	0	359
1993	297	61	0	0	359
1994	298	62	0	0	360
1995	296	63	0	0	358
1996	294	63	0	0	358
1997	296	64	0	0	360
1998	297	65	0	0	362
1999	300	65	0	0	365
2000	302	66	0	0	367
2001	303	67	0	0	370
2002	305	67	0	0	373
2003	307	68	0	c1	375
2004	310	69	0	0	378
2005	312	69	0	0	381
2006	314	70	0	0	384
2007	317	71	0	0	387
2008	319	71	0	0	390
2009	321	72	0	0	393
2010	324	73	0	0	397

SOURCE: VARIABLES EMRETO, EMENNOPJ, EMENPJ, EMML, AND EMTO
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-6.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND₀POINT

	TOTAL RESIDENT EMPLOYMENT	RESIDENT BASIC EMPLOYMENT	RESIDENT SUPPORT EMPLOYMENT	RESIDENT GOVERNMENT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT
1981	259	166	77	16	0
1982	270	166	85	18	0
1983	263	167	78	18	0
1984	273	168	85	21	0
1985	267	169	78	21	0
1986	291	169	100	22	0
1987	289	170	98	21	0
1988	300	171	106	23	0
1989	300	172	106	23	0
1990	303	173	108	23	0
1991	306	173	110	23	0
1992	298	174	104	21	0
1993	297	175	102	20	0
1994	298	176	102	2 0	0
1995	296	177	100	18	0
1996	294	178	99	78	0
1997	296	179	100	17	0
1998	297	179	100	17	0
1999	300	180	102	17	0
2000	302	181	103	17	0
2001	303	182	104	17	0
2002	305	183	105	17	0
2003	307	184	106	17	0
2004	310	185	107	17	0
2005	312	186	109	17	0
2006	314	187	110	17	0
2007	317	188	111	17	0
2008	319	189	113	17	0
2009	321	190	114	17	0
2010	324	191	115	17	0

SOURCE: VARIABLES EMRETO, EMBA, EMSU, EMGO, AND EMREPJ
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-7.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	TOTAL RESIDENT BASIC EMPLOYMENT	RESIDENT FISHING EMPLOYMENT	RESIDENT FISH PROCESSING EMPLOYMENT	OTHER RESIDENT BASIC EMPLOYMENT
1981	166	107	48	11
1982	166	107	48	11
1983	167	107	49	11
1984	168	107	50	11
1985	169	107	51	11
1986	169	107	51	11
1987	170	107	52	11
1988	171	107	53	11
1989	172	107	54	11
1990	173	107	55	11
1991	173	107	55	11
1992	174	107	56	11
1993	175	107	57	11
1994	176	107	58	11
1995	177	107	59	11
1996	178	107	60	11
1997	179	107	61	11
1998	179	107	61	11
1999	180	107	62	11
2000	181	107	63	11
2001	182	107	64	11
2002	183	107	65	11
2003	184	107	66	11
2004	185	107	67	11
2005	186	107	68	11
2006	187	107	69	11
2007	188	107	70	11
2008	189	107	71	11
2009	190	107	72	11
2010	191	107	73	11

: VARIABLES EMBA, EMFI, EMFP, AND EMBANF
eSET SD.BC.MD--CREATED 9/19/83

RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	TOTAL RESIDENT SUPPORT EMPLOYMENT	ENDOGENOUS RESIDENT SUPPORT EMPLOYMENT	GOVERNMENT SPONSORED RESIDENT SUPPORT EMPLOYMENT	EXOGENOUS RESIDENT SUPPORT EMPLOYMENT	ENCLAVE SPONSORED RESIDENT SUPPORT EMPLOYMENT
1981	77	42	22	11	3
1982	85	44	28	11	3
1983	78	43	21	11	3
1984	85	46	25	11	3
1985	78	45	19	11	3
1986	100	50	36	11	3
1987	98	50	34	11	3
1988	106	53	39	11	3
1989	106	53	38	11	3
1990	108	55	39	11	3
1991	110	56	40	11	3
1992	104	55	34	11	3
1993	102	56	32	11	3
1994	102	57	31	11	3
1995	100	57	29	11	3
1996	99	57	27	11	3
1997	100	58	27	11	3
1998	100	59	27	11	3
1999	102	61	27	11	3
2000	103	62	27	11	3
2001	104	63	27	11	3
2002	105	64	26	11	3
2003	106	65	26	11	3
2004	107	67	26	11	3
2005	109	68	26	11	3
2006	110	69	26	11	3
2007	111	71	26	11	4
2008	113	72	26	11	4
2009	114	74	26	11	4
2010	115	75	26	11	4

SOURCE: VARIABLES EMSU, EMSUEG, EMSUGO, EMSUEX, AND EMSUEN
DSET SD.BC.MD--CREATED 9/19/83

TABLE   Q-9.
RURAL ALASKA MODEL
BASE CASE PROJECTIONS
SAND POINT

	TOTAL CIVILIAN GOVERNMENT EMPLOYMENT	ENDOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT	EXOGENOUS CIVILIAN GOVERNMENT EMPLOYMENT
1981	16	14	2
1982	18	16	2
1983	18	16	2
1984	21	19	2
1985	21	19	2
1986	22	20	2
1987	21	19	2
1988	23	21	2
1989	23	21	2
1990	23	21	2
1991	23	21	2
1992	21	19	2
1993	20	18	2
1994	20	18	2
1995	18	16	2
1996	18	16	2
1997	17	15	2
1998	17	15	2
1999	17	15	2
2000	17	15	2
2001	17	15	2
2002	17	15	2
2003	17	15	2
2004	17	15	2
2005	17	15	2
2006	17	15	2
2007	17	15	2
2008	17	15	2
2009	17	15	2
2010	17	15	2

SOURCE: VARIABLES EMGO, EMGOEG, AND EMGOEX
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-10.
RURAL ALASKA MODEL
IMPACT CASE PROJECTIONS
/ SAND POINT

	ONSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	ONSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL ONSHORE PROJECT EMPLOYMENT_.
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	0

SOURCE: VARIABLES EMPSONSK, EMPSONNS, EMPLONSK, EMPLONNS, AND EMPJON
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-11.
RURAL ALASKA MODEL
IMPACT CASE PROJECTIONS
SAND POINT

	OFFSHORE SHORT-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE SHORT-TERM NONSKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM SKILLED PROJECT EMPLOYMENT	OFFSHORE LONG-TERM NONSKILLED PROJECT EMPLOYMENT	TOTAL OFFSHORE PROJECT EMPLOYMENT
1981	0	0	0	0	0
1982	0	0	0	0	0
1983	0	0	0	0	0
1984	0	0	0	0	0
1985	0	0	0	0	0
1986	0	0	0	0	0
1987	0	0	0	0	0
1988	0	0	0	0	0
1989	0	0	0	0	0
1990	0	0	0	0	0
1991	0	0	0	0	0
1992	0	0	0	0	0
1993	0	0	0	0	0
1994	0	0	0	0	0
1995	0	0	0	0	0
1996	0	0	0	0	0
1997	0	0	0	0	0
1998	0	0	0	0	0
1999	0	0	0	0	0
2000	0	0	0	0	0
2001	0	0	0	0	0
2002	0	0	0	0	0
2003	0	0	0	0	0
2004	0	0	0	0	0
2005	0	0	0	0	0
2006	0	0	0	0	0
2007	0	0	0	0	0
2008	0	0	0	0	0
2009	0	0	0	0	0
2010	0	0	0	0	-cl

SOURCE: VARIABLES EMPSOFSK, EMPSOFNS, EMPLOFSK, EMPLOFNS, AND EMPJOF
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-12.
RURAL ALASKA MODEL
IMPACT CASE PROJECTIONS
SAND POINT

	RESIDENT PROJECT EMPLOYMENT	ENCLAVE PROJECT EMPLOYMENT	COMMUTER PROJECT EMPLOYMENT	TOTAL PROJECT EMPLOYMENT
1981	0	0	0	0
1982	0	0	0	0
1983	0	0	0	0
1984	0	0	0	0
1985	0	0	0	0
1986	0	-0	0	0
1987	0	0	0	0
1988	0	-0	0	0
1989	0	0	0	0
1990	0	-0	0	0
1991	0	-0	0	0
1992	0	0	0	0
1993	0	0	0	0
1994	0	0	0	0
1995	0	0	0	0
1996	0	0	0	0
1997	0	0	0	0
1998	0	0	0	0
1999	0	0	0	0
2000	0	0	0	0
2001	0	0	0	0
2002	0	0	0'	0
2003	0	0	0	0
2004	0	0	0	0
2005	0	0	0	0
2006	0	0	0	0
2007	0	0	0	0
2008	0	0	0	0
2009	0	0	0	0
2010	0	0	0	0

SOURCE: VARIABLES EMREPJ, EMENPJ, EMCOPJ, AND EMPJ
DSET SD.BC.MD--CREATED 9/19/83

TABLE Q-13.
RURAL ALASKA MODEL
IMPACT CASE PROJECTIONS
SAND POINT

	TOTAL PROJECT EMPLOYMENT	RESIDENT PROJECT EMPLOYMENT	SKILLED PROJECT EMPLOYMENT	NONSKILLED PROJECT EMPLOYMENT	RESIDENT SKILLED PROJECT EMPLOYMENT	RESIDENT NONSKILLED PROJECT EMPLOYMENT
1981	0	0	0	0	0	0
1982	0	0	0	0	0	0
198'3	0	0	0	0	0	0
1984	0	0	0	0	0	0
1985	0	0	0	0	0	0
1986	0	0	0	0	0	0
1987	0	0	0	0	0	0
1988	0	0	0	0	0	0
1989	0	0	0	0	0	0
1990	0	0	0	0	0	0
1991	0	0	0	0	0	0
1992	0	0	0	0	0	0
1993	0	0	0	0	0	0
1994	0	0	0	0	0	0
1995	0	0	0	0	0	0
1996	0	0	0	0	0	0
1997	0	0	0	0	0	0
1998	0	0	0	0	0	0
1999	0	0	0	0	0	0
2000	0	0	0	0	0	0
200%	0	0	0	0	0	0
2002	0	0	0	0	0	0
2003	0	0	0	0	0	0
2004	0	0	0	0	0	0
2005	0	0	0	0	0	0
2006	0	0	0	0	0	0
2007	0	0	0	0	0	0
2008	0	0	0	0	0	0
2009	0	0	0	0	0	0
2010	0	0	0	0	0	0

SOURCE: VARIABLES EMPJ, EMREPJ, EMPJSK, EMPJNS, EMREPJSK, AND EMREPJNS
DSET SD.BC.MD--CREATED 9/19/83