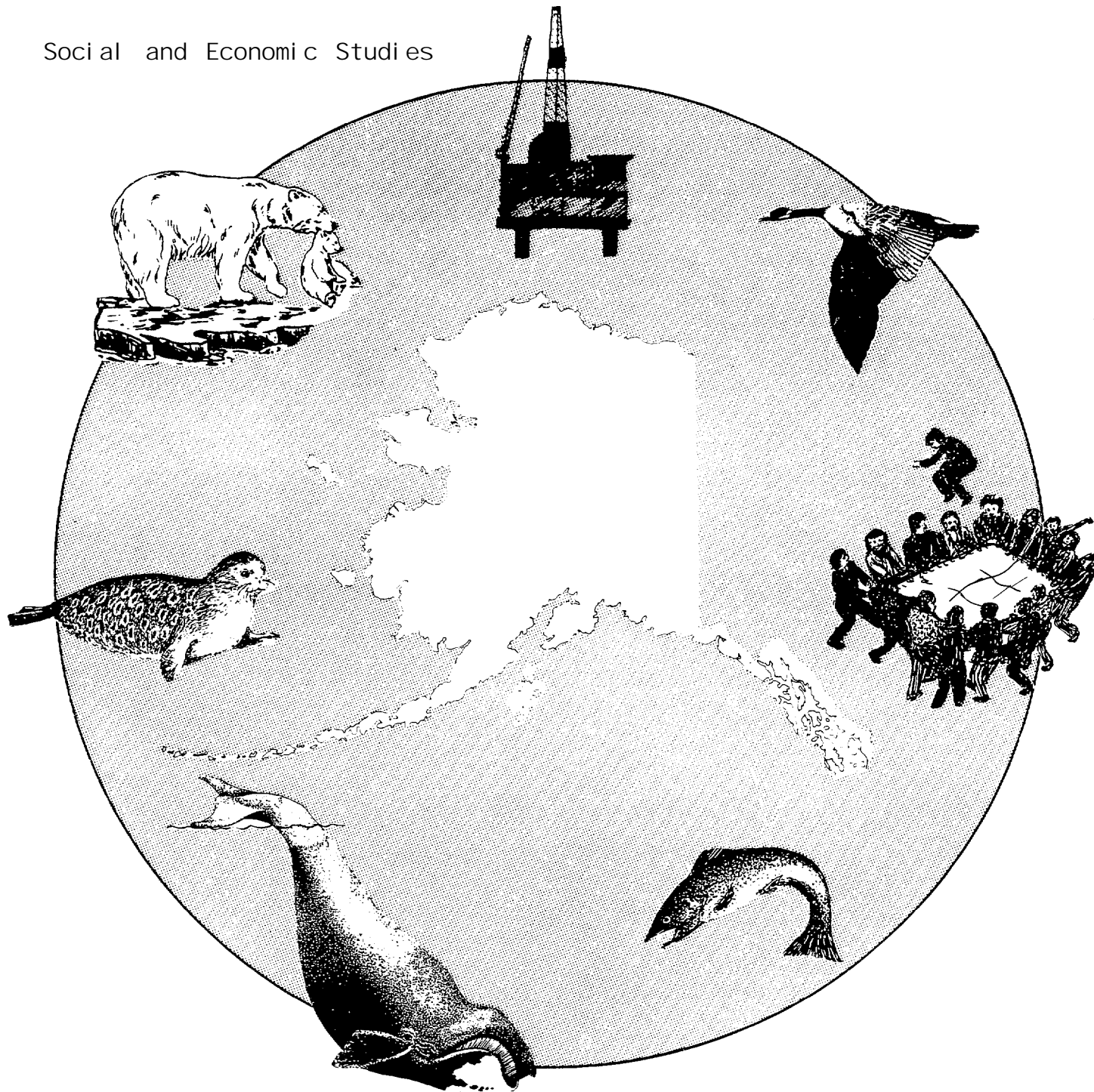


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Social and Economic Studies



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FINAL TECHNICAL REPORT

A DEMOGRAPHIC AND EMPLOYMENT ANALYSIS
OF SELECTED ALASKA RURAL COMMUNITIES
VOLUME II (NORTHERN COMMUNITIES)

Submitted to
Minerals Management Service
U.S. Department of the Interior

by

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In association with

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This report has been reviewed by the Minerals Management Service and approved for publication. Approval does not signify that the contents necessarily reflect the views and policies of the Service, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

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VOLUME 1

TABLE OF CONTENTS

	Page
1. INTRODUCTION	1
II. METHODS AND TERMS	4
A. Demographic Terms	8
B. Employment Terms	12
III. SECONDARY DATA SOURCES	17
A. Available Secondary Literature	17
B. Limitations of Existing Data Series	22
IV. COMPARISONS AND TRENDS	27
A. Population	27
1. Historic Population Trends	27
2. Trends in Village Settlement Patterns	29
3. Sources of Population Change	32
4. Population Mobility	35
5. Age	39
6. Sex Ratios	40
7. Educational Levels	41
B. Employment	43
1. Labor Force Participation Rates	44
2. Trends in Composition of Employment	48
V. BIBLIOGRAPHY.	54

LIST OF TABLES

Table 1 . . . General Population Trends in Alaska, 1740-1984	28
Table 2 . . . Village Settlement Patterns, 1939 and 1980, Select Northern and Western Alaska Census Areas	30
Table 3 . . . Changes in Village Settlements, 1950-1980, Northern and Western Alaska	30

	Page
Table 4 ... Number of Villages, by Size, 1950-1980, Northern and Western Alaska	31
Table 5 ... Annual Rate of Population Change, 1970 - 1984, United States, State of Alaska and Alaska Natives	33
Table 6 ... Components of Population Change, 1980 - 1985, State of Alaska and Select Census Areas	34
Table 7 ... Mobility Status of Population, 1975 - 1980, United States State of Alaska and Alaska Natives	36
Table 8 ... Mobility Status of Alaska Natives, by Sex and Age, 1975-1980	38
Table 9 ... Mobility Status of Population, 1965 - 1970, United States State of Alaska and Alaska Natives	39
Table 10 ... Median Age in Years, United States, State of Alaska and Alaska Natives, 1970, 1980 and 1984	40
Table 11 ... Male/Female Ratio, 1970, 1980 and 1984, United States State of Alaska and Alaska Natives	41
Table 12 ... Percent High School and College Graduates, 1980, Persons 25 Years Old and Over, by Race, United States, State of Alaska and Select Census Areas.	42
Table 13 ... Labor Force Characteristics, 1980, United States State of Alaska and Alaska Natives	45
Table 14 ... Labor Force Participation Rates, by Race, 1980, United States, State of Alaska and Select Census Areas.	45
Table 15 ... Residents Per Job, 1970, 1980 and 1985, State of Alaska and Select Census Areas	46
Table 16 ... Distribution of Employment by Sector, 1970, State of Alaska and Select Census Areas.	49

	Page
Table 17 . . . Distribution of Employment by Sector, 1980, State of Alaska and Select Census Areas . . .	50
Table 18 . . . Distribution of Employment by Sector, 1986, State of Alaska and Select Census Areas	51

VOLUME II

TABLE OF CONTENTS

	Page
INTRODUCTION	xxv
BARROW	1
A. Past Population Trends	1
B. Population Composition	14
C. Trends in Wage and Salary Employment	26
ANAKTUVUK PASS	59
A. Past Population Trends	59
B. Population Composition	70
C. Trends in Wage and Salary Employment	81
KAKTOVIK	- 103
A. Past Population Trends	103
B. Population Composition	112
c. Trends in Wage and Salary Employment	123
POINT HOPE	147
A. Past Population Trends	147
B. Population Composition	158
C. Trends in Wage and Salary Employment	168
WAINWRIGHT e	195
A. Past Population Trends	195
B. Population Composition	204
c. Trends in Wage and Salary Employment	217
KOTZEBUE	243
A. Past Population Trends	243
B. Population Composition	261
C. Trends in Wage and Salary Employment	267
DEERING	289
A. Past Population Trends	289
B. Population Composition	295
c. Trends in Wage and Salary Employment	302
KIVALINA	307
A. Past Population Trends	307
B. Population Composition	314
c. Trends in Wage and Salary Employment	321

	Page
NOME	327
A. Past Population Trends	327
B. Population Composition	334
c. Trends in Wage and Salary Employment	351
 GAMBELL	 375
A. Past Population Trends	375
B. Population Composition	382
c. Trends in Wage and Salary Employment	390
 UNALAKLEET	 399
A. Past Population Trends	399
B. Population Composition	407
C. Trends in Wage and Salary Employment	418

TABLES

Table 1	Population Trends, Barrow, 1880 -1985	2
Table 2	Population Estimates, Barrow, 1880 - 1986	3
Table 3	Population Composition, Barrow, 1960	20
Table 4	Population Composition, Barrow, 1970	21
Table 5	Population Composition, Barrow, 1980	22
Table 6	Population Composition, Barrow, June 1980	23
Table 7	Population Composition, Barrow, 1985	24
Table 8	Permanent Fund Dividend Recipients, Barrow, 1982-1985	25
Table 9	Inupiat Workforce by Work Category, Barrow, 1985.	36
Table 10	Average Annual Full-Time Employment, Barrow, 1977.	39
Table 11	Average Annual Full-Time Employment by Employer, Barrow, 1977	40
Table 12	Average Annual Full-Time Employment, Barrow, 1978.	42
Table 13	Selected Labor Force Data, Barrow, 1980	43
Table 14	*. Composition of Employment by Race and Sex, Barrow, June 1980	44
Table 15	Major Employers by Sector, Barrow, June 1980.	45
Table 16	Average Annual Full-Time Employment, Barrow, 1982.	47
Table 17	Average Annual Full-Time Employment by Employer, Barrow, 1982	48
Table 18	Covered Industry Employment, City of Barrow, 1980.	51
Table 19	Covered Industry Employment, City of Barrow, 1981.	52
Table 20	Covered Industry Employment, City of Barrow, 1982.	53
Table 21	Covered Industry Employment, City of Barrow, 1983.	54
Table 22	Covered Industry Employment, City of Barrow, 1984.	55

	Page
Table 23 . . . Covered Industry Employment, City of Barrow, 1985.	56
Table 24 . . . Covered Industry Employment, City of Barrow, 1986.	57
Table 25 . . . Population Trends, Anaktuvuk Pass, 1950 -1985	60
Table 26 . . . Population Estimates, Anaktuvuk Pass, 1935-1986	61
Table 27 . . . Population Composition, Anaktuvuk Pass, 1969.	75
Table 28 . . . Population Composition, Anaktuvuk Pass, 1970.	76
Table 29 . . . Population Composition, Anaktuvuk Pass, August 1972	77
Table 30 . . . Population Composition, Anaktuvuk Pass, 1980	78
Table 31 . . . Population Composition, Anaktuvuk Pass, July 1980	79
Table 32 . . . Permanent Fund Dividend Recipients, Anaktuvuk Pass, 1982 -1985	80
Table 33 . . . Selected Labor Force Data, Anaktuvuk Pass, 1980.	90
Table 34 . . . Composition of Employment by Race and Sex, Anaktuvuk Pass, July 1980	91
Table 35 . . . Major Employers by Sector, Anaktuvuk Pass, July 1980	92
Table 36 . . . Average Annual Full-Time Employment, Anaktuvuk Pass, 1982	93
Table 3-7 . . . Average Annual Full-Time Employment by Employer, Anaktuvuk Pass, 1982	94
Table 38 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1980	95
Table 39 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1981	96
Table 40 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1982	97
Table 41 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1983	98
Table 42 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1984.	99
Table 43 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1985	100
Table 44 . . . Covered Industry Employment, Anaktuvuk Pass Area, 1986	101
Table 45 . . . Population Trends, Kaktovik, 1950-1985	105
Table 46 . . . Population Estimates, Kaktovik, 1936 - 1987	106

	Page
Table 47 . . . Population Composition, Kaktovik, 1970. . . . .	.118
Table 48 . . . Population Composition, Kaktovik, 1980. . . . .	.119
Table 49 . . . Population Composition, Kaktovik, July 1980 . . . . .	.120
Table 50 . . . Population Composition, Kaktovik, April 1983 . . . . .	.121
Table 51 . . . Permanent Fund Dividend Recipients, Kaktovik, 1982 - 1985 . . . . .	.122
Table 52 . . . Work Force by Work Category, Kaktovik, 1987. . . . .	.132
Table 53 . . . Average Annual Full-Time Employment, Kaktovik, 1977 . . . . .	.134
Table 54 . . . Selected Labor Force Data, Kaktovik, 1980. . . . .	.135
Table 55 . . . Composition of Employment by Race and Sex, Kaktovik, July 1980 . . . . .	.136
Table 56 . . . Major Employers by Sector, Kaktovik, July 1980 . . . . .	.137
Table 57 . . . Average Annual Full-Time Employment, Kaktovik, 1982 . . . . .	.138
Table 58 . . . Average Annual Full-Time Employment by Employer, Kaktovik, 1982 . . . . .	.139
Table 59 . . . Covered Industry Employment, Kaktovik Area, 1980. . . . .	.140
Table 60 . . . Covered Industry Employment, Kaktovik Area, 1981. . . . .	.141
Table 61 . . . Covered Industry Employment, Kaktovik Area, 1982. . . . .	.142
Table 62 . . . Covered Industry Employment, Kaktovik Area, 1983. . . . .	.143
Table 63 . . . Covered Industry Employment, Kaktovik Area, 1984. . . . .	.144
Table 64 . . . Covered Industry Employment, Kaktovik Area, 1985. . . . .	.145
Table 65 . . . Covered Industry Employment, Kaktovik Area, 1986. . . . .	.146
Table 66 . . . Population Trends, Point Hope, 1880-1985 . . . . .	.148
Table 67 . . . Population Estimates, Point Hope, 1880 -1986 . . . . .	.149
Table 68 . . . Population Composition, Point Hope, 1970 . .	.163
Table 69 . . . Population Composition, Point Hope, 1980 . .	.164
Table 70 . . . Population Composition, Point Hope, June 1980 . . . . .	.165
Table 71 . . . Population Composition, Point Hope, 1986 . .	.166

	Page
Table 72 . . . Permanent Fund Dividend Recipients, Point Hope, 1982 - 1985	167
Table 73 . . . Inupiat Workforce by Work Category, Point Hope, 1986	180
Table 74 . . . Selected Labor Force Data, Point Hope, 1980.	183
Table 75 . . . Composition of Employment by Race and Sex, Point Hope, June 1980	184
Table 76 . . . Major Employers by Sector, Point Hope, June 1980	185
Table 77 . . . Average Annual Full-Time Employment, Point Hope, 1982.	186
Table 78 . . . Average Annual Full-Time Employment by Employer', Point Hope, 1982.	187
Table 79 . . . Covered Industry Employment, Point Hope Area, 1980	188
Table 80 . . . Covered Industry Employment, Point Hope Area, 1981	189
Table 81 . . . Covered Industry Employment, Point Hope Area, 1982	190
Table 82 . . . Covered Industry Employment, Point Hope Area, 1983	191
Table 83 . . . Covered Industry Employment, Point Hope Area, 1984	192
Table 84 . . . Covered Industry Employment, Point Hope Area, 1985	193
Table 85 . . * Covered Industry Employment, Point Hope Area, 1986	194
Table 86 . . . Population Trends, Wainwright, 1890 -1985	197
Table 87 . . . Population Estimates, Wainwright, 1882 -1987	198
Table 88 . . . Population Composition, Wainwright, June 1955	210
Table 89 . . . Population Composition, Wainwright, July 1968	211
Table 90 . . . Population Composition, Wainwright, 1970 . .	212
Table 91 . . . Population Composition, Wainwright, April 1977	213
Table 92 . . . Population Composition, Wainwright, 1980.	214
Table 93 . . . Population Composition, Wainwright, April 1980	215
Table 94 . . . Permanent Fund Dividend Recipients, Wainwright, 1982 - 1985	216
Table 95 . . . Average Annual Full-Time Employment, Wainwright, 1977	227
Table 96 . . . Average Annual Full-Time Employment by Employer, Wainwright, 1977	228

	Page
Table 97 . . . Selected Labor Force Data, Wainwright, 1980	230
Table 98 . . . Composition of Employment by Race and Sex, Wainwright, April 1980	231
Table 99 . . . Major Employers by Sector, Wainwright, April 1980	232
Table 100 . . . Average Annual Full-Time Employment, Wainwright, 1982	233
Table 101 . . . Average Annual Full-Time Employment by Employer, Wainwright, 1982	234
Table 102 . . . Covered Industry Employment, Wainwright Area, 1980	236
Table 103 . . . Covered Industry Employment, Wainwright Area, 1981	237
Table 104 . . . Covered Industry Employment, Wainwright Area, 1982	238
Table 105 . . . Covered Industry Employment, Wainwright Area, 1983	239
Table 106 . . . Covered Industry Employment, Wainwright Area, 1984	240
Table 107 . . . Covered Industry Employment, Wainwright Area, 1985	241
Table 108 . . . Covered Industry Employment, Wainwright Area, 1986	242
Table 109 . . . Estimated Population, Traditional Kotzebue Sound Societies, 1800 - 1900	244
Table 110 . . . Population of Kotzebue Region Villages, 1920 -1985	246
Table 111 . . . Population Estimates, Kotzebue, 1800 -1987	247
Table 112 . . . Population Trends, Kotzebue, 1880 - 1985	249
Table 113 . . . Alaska Native Heads of Household by Place of Birth, Kotzebue, 1969	251
Table 114 . . . Length of Residence in Kotzebue, 1978	253
Table 115 . . . Components of Population Change, Kobuk Census Division, 1970 - 1985	254
Table 116 . . . Birth Rates, Kobuk Census Division, 1970-1980	255
Table 117 . . . Births, By Race of Mother, Kotzebue, 1977 -1985	257
Table 118 . . . Natural Increase, Kotzebue, 1977 - 1985	257
Table 119 . . . Permanent Fund Dividend Recipients, Kotzebue, 1982 - 1985	258
Table 120 . . . School Enrollments, Kotzebue, 1975-1987	259
Table 121 . . . Final Enrollment by Grade, Kotzebue, 1975/76 - 1986/87	260

	Page
Table 122 . . . Population Composition by Sex and Age, Kotzebue, 1960. . . . .	.262
Table 123 . . . Population Composition, Kotzebue, 1969 . . .	263
Table 124 . . . Population Composition, Kotzebue, 1970 . . .	264
Table 125 . . . Population Composition, Kotzebue, 1980 . . .	265
Table 126 . . . Marital Status, by Sex, Persons 15 Years and Older, Kotzebue, 1980	266
Table 127 . . . Household Type and Relationship, Kotzebue, 1980. . . . .	.266
Table 128 . . . Occupations of Employed Persons, Kotzebue, 1978 . . . . .	.268
Table 129 . . . Selected Labor Force Data, Kotzebue, 1980 . . . . .	.270
Table 130 . . . Covered Industry Employment, City of Kotzebue, 1980 - 1986	271
Table 131 . . . Covered Industry Employment, City of Kotzebue, 1977 . . . . .	.272
Table 132 . . . Covered Industry Employment, City of Kotzebue, 1978 . . . . .	.273
Table 133 . . . Covered Industry Employment, City of Kotzebue, 1980 . . . . .	.274
Table 134 . . . Covered Industry Employment, City of Kotzebue, 1981 . . . . .	.275
Table 135 . . . Covered Industry Employment, City of Kotzebue, 1982. . . . .	.276
Table 136 . . . Covered Industry Employment, City of Kotzebue, 1983 . . . . .	.277
Table 137 . . . Covered Industry Employment, City of Kotzebue, 1984 . . . . .	.278
Table 138 . . . Covered Industry Employment, City of Kotzebue, 1985. . . . .	.279
Table 139 . . . Covered Industry Employment, City of Kotzebue, 1986 . . . . .	.280
Table 140 . . . Employment and Earnings by Industry, City of Kotzebue, 1980	282
Table 141 . . . Kotzebue Job List, c 1984	284
Table 142 . . . Average Monthly Employment, City of Kotzebue, 1980 - 1986	286
Table 143 . . . Population Estimates, Deering, 1800-1987 . . . . .	.290
Table 144 . . . Population Trends, Deering, 1910 - 1985 . . .	292
Table 145 . . . Population Composition, Deering, 1970 . . .	296
Table 146 . . . Population Composition, Deering, 1980 . . .	297
Table 147 . . . Marital Status, By Sex, Persons 15 Years and Older, Deering, 1980	298
Table 148 . . . Household Type and Relationship, Deering, 1980. . . . .	.298

	Page
Table 149 . . . Permanent Fund Dividend Recipients, Deering, 1982-1985.. . . .	299
Table 150 . . . Selected Labor Force Data, Deering, 1980 . . .	304
Table 151 . . . Covered Industry Employment, Deering Area, 1980-1986	305
Table 152 . . . Deering Job List, c 1984	306
Table 153 . . . Population Estimates, Kivalina, 1800 -1987	308
Table 154 . . . Population Trends, Kivalina, 1920 - 1985 . . .	312
Table 155 . . . Births and Deaths, Kivalina, 1955 - 1959 . . .	315
Table 156 . . . Population Composition, Kivalina, 1959 . . .	316
Table 157 . . . Population Composition, Kivalina, 1970 . . .	317
Table 158 . . . Population Composition, Kivalina, 1980 . . .	318
Table 159 . . . Marital Status, By Sex, Persons 15 Years and Older, Kivalina, 1980	319
Table 160 . . . Household Type and Relationship, Kivalina, 1980.	319
Table 161 . . . Permanent Fund Dividend Recipients, Kivalina, 1982 - 1985	320
Table 162 . . . Sources of Income, Kivalina, 1959	322
Table 163 . . . Selected Labor Force Data, Kivalina, 1980 . . .	324
Table 164 . . . Covered Industry Employment, Kivalina Area, 1980 - 1986	325
Table 165 . . . Kivalina Job List, c 1984	326
Table 166 . . . Population Estimates, Nome, 1880 - 1987 . . .	328
Table 167 . . . Population Trends, Nome, 1900 - 1985	330
Table 168 . . . Population Composition by Sex and Age, CityofNome, 1939.	337
Table 169 . . . Population Composition by Race, City of Nome, 1939	337
Table 170 . . . Population Composition by Sex and Age, Nome, 1960	338
Table 171 . . . Population Composition, Nome, 1970	339
Table 172 . . . Population Composition by Sex and Age, Nome, 1975	340
Table 173 . . . Population Composition, Nome, 1980	341
Table 174 . . . Marital Status, by Sex, Persons 15 Years and Older, Nome, 1980	345
Table 175 . . . Household Type and Relationship, Nome, 1980	345
Table 176 . . . Births, By Race of Mother, Nome, 1977-1985	346
Table 177 . . . Population and Housing, Nome, 1981	347
Table 178 . . . Permanent Fund Dividend Recipients, Nome, 1982 -1985	348
Table 179 . . . Final Enrollment by Grade, Nome, 1956/57-1986/87	349

	Page
Table 180 . . .	Employed Workers by Industry Group, City of Nome, 1939 353
Table 181 . . .	Employment Status of Persons 14 Years Old and Older, City of Nome, 1939 353
Table 182 . . .	Employed Workers by Major Occupation Group, City of Nome, 1939 353
Table 183 . . .	Average Year-Round Full-Time Employment, Nome and Immediate Vicinity, 1967 355
Table 184 . . .	Employment by Industry, Nome, November 1979 356
Table 185 . . .	Selected Labor Force Data, Nome, 1980 357
Table 186 . . .	Covered Industry Employment, City of Nome, 1980 - 1986 358
Table 187 . . .	Covered Industry Employment, City of Nome, 1980 359
Table 188 . . .	Covered Industry Employment, City of Nome, 1981 360
Table 189 . . .	Covered Industry Employment, City of Nome, 1982 361
Table 190 . . .	Covered Industry Employment, City of Nome, 1983 362
Table 191 . . .	Covered Industry Employment, City of Nome, 1984 363
Table 192 . . .	Covered Industry Employment, City of Nome, 1985 364
Table 193 . . .	Covered Industry Employment, City of Nome, 1986 365
Table 194 . . .	Employment by Place of Work, Nome, 1980-1987 367
Table 195 . . .	Average Monthly Employment, City of Nome, 1980 - 1986 373
Table 196 . . .	Population Estimates, Gambell, 1878-1987 377
Table 197 . . .	Population Trends, Gambell, 1910 - 1985 379
Table 198 . . .	Population Composition, Gambell, 1963 383
Table 199 . . .	Population Composition, Gambell, 1970 384
Table 200 . . .	Population Composition by Sex and Age, Gambell, 1975 385
Table 201 . . .	Population Composition, Gambell, 1980 386
Table 202 . . .	Marital Status, by Sex, Persons 15 Years and Older, Gambell, 1980 388
Table 203 . . .	Household Type and Relationship, Gambell, 1980 388
Table 204 . . .	Permanent Fund Dividend Recipients, Gambell, 1982 - 1985 389
Table 205 . . .	Selected Labor Force Data, Gambell, 1980 393
Table 206 . . .	Covered Industry Employment, St Lawrence Island, 1980-1986 394

	Page
Table 207 . . . Employment, Gambell, 1986	395
Table 208 . . . Employment by Duration and Gender and Age of Employee, Gambell, 1986	396
Table 209 . . . Population Estimates, Unalakleet, 1837-1987	402
Table 210 . . . Population Trends Unalakleet, 1880 - 1985 . . .	404
Table 211 . . . Alaska Native Population Composition, Unalakleet, 1968	410
Table 212 . . . Population Composition, Unalakleet, 1970 . . .	411
Table 213 . . . Population Composition by Age and Sex, Unalakleet, 1975	412
Table 214 . . . Population Composition, Unalakleet, 1980 . . .	413
Table 215 . . . Permanent Fund Dividend Recipients, Unalakleet, 1982 - 1985	414
Table 216 . . . Marital Status, by Sex, Persons 15 Years and Older, Unalakleet , 1980	415
Table 217 . . . Household Type and Relationship, Unalakleet, 1980	415
Table 218 . . . Home Village of Non-Local Native Spouses, Unalakleet, 1982	416
Table 219 . . . Selected Labor Force Data, Unalakleet, 1980.	420
Table 220 . . . Covered Industry Employment, Unalakleet Area, 1980-1986	421
Table 221 . . . Full-Time Employment, Unalakleet, 1982 . . .	422

VOLUME III

TABLE OF CONTENTS

	Page
INTRODUCTION	xxv
BETHEL	425
A. Past Population Trends	425
B. Population Composition	437
C. Trends in Wage and Salary Employment	446
ALAKANUK	465
A. Past Population Trends	465
B. Population Composition	476
C. Trends in Wage and Salary Employment	483
SCAMMON BAY	501
A. Past Population Trends	501
B. Population Composition	512
C. Trends in Wage and Salary Employment	516
ANIAK *	533
A. Past Population Trends	533
B. Population Composition	542
c. Trends in Wage and Salary*Employment	552
DILLINGHAM	565
A. Past Population Trends	565
B. Population Composition	580
C. Trends in Wage and Salary Employment	583
TOGIAK	607
A. Past Population Trends	607
B. Population Composition	617
c. Trends in Wage and Salary Employment	621
UNALASKA	647
A. Past Population Trends	647
B. Population Composition	664
c. Trends in Wage and Salary Employment	673
SAND POINT	693
A. Past Population Trends	693
B. Population Composition	704
c. Trends in Wage and Salary Employment	717
NIKOLSKI	735
A. Past Population Trends	735
B. Population Composition	741
c. Trends in Wage and Salary Employment	750

ST PAUL	753
A. Past Population Trends	753
B. Population Composition	768
C. Trends in Wage and Salary Employment	779
APPENDIX	799

TABLES

Table 222	Population Estimates, Bethel, 1880 - 1987	428
Table 223	Population Trends, Bethel, 1910 - 1985	430
Table 224	Population Change, City of Bethel and Bethel Census Area, 1929 - 1985	433
Table 225	Components of Population Change, Bethel Census Area, 1970 - 1985	434
Table 226	Final Enrollment by Grade, Bethel, 1956/57-1986/87	436
Table 227	Racial Composition of Population, Bethel, 1960-1980	438
Table 228	Permanent Fund Dividend Recipients, Bethel, 1982 - 1985	441
Table 229	Population Composition by Sex and Age, Bethel, 1960.	442
Table 230	Population Composition by Sex and Age, Bethel, 1965.	442
Table 231	Population Composition, Bethel, 1970	443
Table 232	Population Composition, Bethel, 1980	444
Table 233	Marital Status, By Sex, Persons 15 Years and Older, Bethel, 1980	445
Table 234	Household Type and Relationship, Bethel, 1980.	445
Table 235	Estimated Employment, City of Bethel, 1969.	447
Table 236	Selected Labor Force Data, Bethel, 1980	448
Table 237	Composition of Employment, City of Bethel, 1978 and 1980	450
Table 238	Average Annual Full-Time Employment, City of Bethel, 1980	451
Table 239	Civilian Labor Force Status, Persons Over 16 Years of Age, City of Bethel, 1980	454
Table 240	Average Monthly Employment, City of Bethel, 1980-1986.. . . .	456
Table 241	Covered Industry Employment, City of Bethel, 1980 - 1986	457
Table 242	Covered Industry Employment, City of Bethel, 1980.	458
Table 243	Covered Industry Employment, City of Bethel, 1981.	459
Table 244	Covered Industry Employment, City of Bethel, 1982.	460

	Page
Table 245 . . . Covered Industry Employment, City of Bethel, 1983. . . . .	.461
Table 246 . . . Covered Industry Employment, City of Bethel, 1984. . . . .	.462
Table 247 . . . Covered Industry Employment, City of Bethel, 1985.. . . .	.463
Table 248 . . . Covered Industry Employment, City of Bethel, 1986. . . . .	.464
Table 249 . . . Number and Population of Villages, Wade Hampton Census Division, 1939-1985 . . . . .	.469
Table 250 . . . Population of Yukon Delta Villages, 1939-1985 . . . . .	.470
Table 251 . . . Population Estimates, Alakanuk, 1891-1987 . . . . .	.471
Table 252 . . . Population Trends, Alakanuk, 1939-1985 . . . . .	.472
Table 253 . . . Components of Population Change, Wade Hampton Census Division, 1970 - 1985 . . . .	.474
Table 254 . . . Population Composition, Alakanuk, 1970 . . .	.479
Table 255 . . . Population Composition, Alakanuk, 1980 . . .	.480
Table 256 . . . Permanent Fund Dividend Recipients, Alakanuk, 1982 - 1985 . . . . .	.481
Table 257 . . . Marital Status, By Sex, Persons 15 Years and Older, Alakanuk, 1980 . . . . .	.482
Table 258 . . . Household Type and Relationship, Alakanuk, 1980. . . . .	.482
Table 259 . . . Selected Labor Force Data, Alakanuk, 1980. . . . .	.486
Table 260 . . . Opportunities for Cash Income, Alakanuk, June 1981 - May 1982 . . . . .	.487
Table 261 . . . Mean Household Cash Income, By Source, Alakanuk, June 1981-May 1982 . . . . .	.487
Table 262 . . . Composition of Employment, Alakanuk, 1982 and 1986 . . . . .	.489
Table 263 . . . Covered Industry Employment, Alakanuk Area, 1980 - 1986 . . . . .	.493
Table 264 . . . Covered Industry Employment, Alakanuk Area, 1980 . . . . .	.494
Table 265 . . . Covered Industry Employment, Alakanuk Area, 1981. . . . .	.495
Table 266 . . . Covered Industry Employment, Alakanuk Area, 1982. . . . .	.496
Table 267 . . . Covered Industry Employment, Alakanuk Area, 1983.. . . .	.497
Table 268 . . . Covered Industry Employment, Alakanuk Area, 1984. . . . .	.498

	Page
Table 269 . . . Covered Industry Employment, Alakanuk Area, 1985	499
Table 270 . . . Covered Industry Employment, Alakanuk Area, 1986.	500
Table 271 . . . Number and Population of Villages, Wade Hampton Census Division, 1939 - 1985	506
Table 272 . . . Population of Scammon Bay Area Villages, 1929 -1985	507
Table 273 . . . Population Estimates, Scammon Bay, 1927-1987	508
Table 274 . . . Population Trends, Scammon Bay, 1939 -1985	509
Table 275 . . . Components of Population Change, Wade Hampton Census Division, 1970 - 1985	510
Table 276 . . . Marital Status, By Sex, Persons 15 Years and Older, Scammon Bay , 1980	514
Table 277 . . . Household Type and Relationship, Scammon Bay, 1980	514
Table 278 . . . Population Composition, Scammon Bay, 1970.	517
Table 279 . . . Population Composition, Scammon Bay, 1980.	518
Table 280 . . . Permanent Fund Dividend Recipients, Scammon Bay, 1982 - 1985	519
Table 281 . . . Estimated Employment, Scammon Bay, 1971 . . .	520
Table 282 . . . Selected Labor Force Data, Scammon Bay, 1980	521
Table 283 . . . Opportunities for Cash Income, Scammon Bay, June 1981 - May 1982	523
Table 284 . . . Mean Household Income, By Source, Scammon Bay, June 1981 - May 1982	523
Table 285 . . . Covered Industry Employment, Scammon BayArea, 1980-1986	525
Table 286 . . . Covered Industry Employment, Scammon Bay Area, 1980	526
Table 287 . . . Covered Industry Employment, Scammon Bay Area, 1981.	527
Table 288 . . . Covered Industry Employment, Scammon Bay Area, 1982	528
Table 289 . . . Covered Industry Employment, Scammon Bay Area, 1983	529
Table 290 . . . Covered Industry Employment, Scammon Bay Area, 1984.	530
Table 291 . . . Covered Industry Employment, Scammon Bay Area, 1985	531
Table 292 . . . Covered Industry Employment, Scammon Bay Area, 1986	532

	Page
Table 293 . . . Population of Aniak Sub-Region Villages, 1939-1975 . . . . .	.537
Table 294 . . . Population Estimates, Aniak, 1939 -1987 . . . . .	.538
Table 295 . . . Population Trends, Aniak, 1939 -1985 . . . . .	.539
Table 296 . . . Final Enrollment by Grade, Aniak, 1956/57 - 1986/87. . . . .	. 540
Table 297 . . . Permanent Fund Dividend Recipients, Aniak, 1982 -1985 . . . . .	. 541
Table 298 . . . Population Composition, by Race, City of Aniak, 1970 and 1980, . . . . .	...545
Table 299 . . . Population Composition, by Race, Aniak Sub-Region, 1970 and 1980 . . . . .	. 545
Table 300 . . . Age Cohort Comparison, City of Aniak, 1980 and 1985 . . . . .	.547
Table 301 . . . Population Composition, Aniak, 1970 . . . . .	. 548
Table 302 . . . Population Composition, Aniak, 1980 . . . . .	. 549
Table 303 . . . Marital Status, By Sex, Persons 15 Years and Older, Aniak, 1980 . . . . .	. 551
Table 304 . . . Household Type and Relationship, Aniak, 1980 . . . . .	. 551
Table 305 . . . Selected Labor Force Data, Aniak, 1980 . . . . .	. 554
Table 306 . . . Average Monthly Employment, Aniak Sub Area, 1985-1986 . . . . .	...555
Table 307 . . . Covered Industry Employment, Aniak Area, 1980 -1986 . . . . .	. 556
Table 308 . . . Covered Industry Employment, Aniak Area, 1980 . . . . .	. 557
Table 309 . . . Covered Industry Employment, Aniak Area, 1981. . . . .	. 558
Table 310 . . . Covered Industry Employment, Aniak Area, 1982 . . . . .	. 559
Table 311 . . . Covered Industry Employment, Aniak Area, 1983. . . . .	. 560
Table 312 . . . Covered Industry Employment, Aniak Area, 1984 . . . . .	. 561
Table 313 . . . Covered Industry Employment, Aniak Area, 1985 . . . . .	. 562
Table 314 . . . Covered Industry Employment, Aniak Area, 1986... . . . .	. 563
Table 315 . . . Population Trends, Dillingham and Vicinity, 1890-1985 . . . . .	...566
Table 316 . . . Population Estimates, Dillingham, 1890 - 1987 . . . . .	.567
Table 317 . . . Population Composition, Dillingham, 1970 . . . . .	. 584
Table 318 . . . Population Composition, Dillingham, 1980 . . . . .	. 585

	Page
Table 319 . . . Permanent Fund Dividend Recipients, Dillingham, 1982 - 1985	586
Table 320 . . . Selected Labor Force Data, Dillingham, 1980.	597
Table 321 . . . Average Annual Full-Time Employment, Dillingham and Immediate Vicinity, 1980 . . .	598
Table 322 . . . Government and Non-Profit Corporation Employment, City of Dillingham, 1986 . . .	599
Table 323 . . . Covered Industry Employment, Dillingham Area, 1980.	600
Table 324 . . . Covered Industry Employment, Dillingham Area, 1981.	601
Table 325 . . . Covered Industry Employment, Dillingham Area, 1982.	602
Table 326 . . . Covered Industry Employment, Dillingham Area, 1983.	603
Table 327 . . . Covered Industry Employment, Dillingham Area, 1984.	604
Table 328 . . . Covered Industry Employment, Dillingham Area, 1985.	605
Table 329 . . . Covered Industry Employment, Dillingham Area, 1986.	606
Table 330 . . . Population Trends, Togiak, 1880 - 1985 . . .	608
Table 331 . . . Population Estimates, Togiak, 1880 - 1987	609
Table 332 . . . Population Composition, Togiak, 1966 . . .	622
Table 333 . . . Population Composition, Togiak, 1970 . . .	623
Table 334 . . . Population Composition, Togiak, 1980 . . .	624
Table 335 . . . Population Composition, Togiak, 1983 . . .	625
Table 336 . . . Permanent Fund Dividend Recipients, Togiak, 1982 - 1985	626
Table 337 . . . Selected Labor Force Data, Togiak, 1980 . . .	637
Table 338 . . . Average Annual Full-Time Employment by Employer, Togiak, 1983	638
Table 339 . . . Estimated Cash Income by Source, Togiak, 1982..	639
Table 340 . . . Covered Industry Employment, Togiak Area, 1980.	640
Table 341 . . . Covered Industry Employment, Togiak Area, 1981..	641
Table 342 . . . Covered Industry Employment, Togiak Area, 1982..	642
Table 343 . . . Covered Industry Employment, Togiak Area, 1983.	643
Table 344 . . . Covered Industry Employment, Togiak Area, 1984.	644
Table 345 . . . Covered Industry Employment, Togiak Area, 1985.	645

	Page
Table 346 . . . Covered Industry Employment, Togiak Area, 1986 . . . . .	.646
Table 347 . . . Population of Unalaska Island Villages, 1825. . . . .	.651
Table 348 . . . Population of Unalaska Island Villages, 1831 . . . . .	.651
Table 349 . . . Racial Composition of Population, Unalaska Island Villages , 1880 . . . . .	.652
Table 350 . . . Historic Population, Unalaska Island, 1880-1985 . . . . .	.653
Table 351 . . . Population Estimates, Unalaska 1805-1987 . . . . .	.656
Table 352 . . . Population Trends, Unalaska , 1880-1985 . . . . .	.658
Table 353 . . . Number and Origin of Native Immigrants, Unalaska, July 1967 - December 1969 . . . . .	.661
Table 354 . . . Residents and Non-Residents, City of Unalaska, 1970 - 1981 . . . . .	.663
Table 355 . . . Final Enrollment by Grade, Unalaska , 1956/57 - 1986/87 . . . . .	.665
Table 356 . . . Permanent Fund Dividend Recipients, Unalaska/Dutch Harbor, 1982 - 1985 . . . . .	.666
Table 357 . . . Population by Race, City of Unalaska , 1970 -1980 . . . . .	.667
Table 358 . . . Population Composition, Unalaska, 1970 . . . . .	.669
Table 359 . . . Population Composition, Unalaska, 1977 . . . . .	.670
Table 360 . . . Population Composition, Unalaska, 1980 . . . . .	.671
Table 361 . . . Marital Status, By Sex, Persons 15 Years and Older, Unalaska, 1980 . . . . .	.672
Table 362 . . . Household Type and Relationship, Unalaska, 1980 . . . . .	.672
Table 363 . . . Estimated Employment, City of Unalaska , 1967-1986 . . . . .	.676
Table 364 . . . Basic and Non-Basic Employment, City of Unalaska, 1967, 1976 and 1980 . . . . .	.676
Table 365 . . . Annual Average Employment, Unalaska - Dutch Harbor, December 1967 . . . . .	.677
Table 366 . . . Estimated Employment, City of Unalaska , 1969. . . . .	.677
Table 367 . . . Average Annual Employment, City of Unalaska, 1976 . . . . .	.678
Table 368 . . . Average Annual Full-Time Employment, Unalaska, 1980 . . . . .	.679
Table 369 . . . Distribution of Employment by Sector, State of Alaska and City of Unalaska , 1980 . . . . .	.680
Table 370 . . . Selected Labor Force Data, Unalaska , 1980. . . . .	.681

	Page
Table 371 . . . Covered Industry Employment, Unalaska Area, 1980- 1986 . . . . .	.684
Table 372 . . . Average Monthly Employment, City of Unalaska, 1981 - 1986	685
Table 373 . . . Average Annual Unemployment, Selected Census Areas, 1985 - 1987	685
Table 374 . . . Covered Industry Employment, Unalaska Area, 1980. . . . .	.686
Table 375 . . . Covered Industry Employment, Unalaska Area, 1981. . . . .	.687
Table 376 . . . Covered Industry Employment, Unalaska Area, 1982. . . . .	.688
Table 377 . . . Covered Industry Employment, Unalaska Area, 1983. . . . .	.689
Table 378 . . . Covered Industry Employment, Unalaska Area, 1984. . . . .	.690
Table 379 . . . Covered Industry Employment, Unalaska Area, 1985. . . . .	.691
Table 380 . . . Covered Industry Employment, Unalaska Area, 1986. . . . .	.692
Table 381 . . . Historic Population Change, Aleutians East Region, 1880 - 1986	698
Table 382 . . . Population Estimates, Sand Point, 1900 -1987 . . . . .	.700
Table 383 . . . Population Trends, Sand Point, 1900-1985 . . . . .	.701
Table 384 . . . Sand Point Population, 1980	705
Table 385 . . . Trends in Sand Point Population, 1980-1985 . . . . .	.705
Table 386 . . . Final Enrollment by Grade, Sand Point, 1956/57-1986/87 . . . . .	.706
Table 387 . . . Permanent Fund Dividend Recipients, Sand Point, 1982 - 1985 . . . . .	.707
Table 388 . . . Length of Residence, City of Sand Point, 1983. . . . .	.710
Table 389 . . . Population Composition, Sand Point, 1970	713
Table 390 . . . Population Composition, Sand Point, 1980	714
Table 391 . . . Population Composition by Residency and Sex, Sand Point, 1980 - 1985	715
Table 392 . . . Marital Status, By Sex, Persons 15 Years and Older, Sand Point, 1980	716
Table 393 . . . Household Type and Relationship, Sand Point, 1980 . . . . .	.716
Table 394 . . . Average Annual Full-Time Employment, SandPoint,1967	721
Table 395 . . . Composition of Employment, Sand Point, 1974 and 1976 . . . . .	.722

	Page
Table 396 . . . Composition of Employment, Sand Point, June 1980	723
Table 397 . . . Selected Labor Force Data, Sand Point, 1980	724
Table 398 . . . Average Monthly Employment, Sand Point Area, 1980-1986	725
Table 399 . . . Covered Industry Employment, Sand Point Area, 1980-1986	726
Table 400 . . . Covered Industry Employment, Sand Point Area, 1980.	727
Table 401 . . . Covered Industry Employment, Sand Point Area, 1981.	728
Table 402 . . . Covered Industry Employment, Sand Point Area, 1982.	729
Table 403 . . . Covered Industry Employment, Sand Point Area, 1983.	730
Table 404 . . . Covered Industry Employment, Sand Point Area, 1984.	731
Table 405 . . . Covered Industry Employment, Sand Point Area, 1985.	732
Table 406 . . . Covered Industry Employment, Sand Point Area, 1986.	733
Table 407 . . . Population Estimates, Nikolski, 1826-1987	737
Table 408 . . . Population Trends, Nikolski, 1880 - 1985 . . .	738
Table 409 . . . Population Composition, Nikolski, 1897, 1942 and 1952	743
Table 410 . . . Population Composition, Nikolski, 1970 . . .	744
Table 411 . . . Population Composition, Nikolski, 1980 . . .	745
Table 412 . . . Marital Status, By Sex, Persons 15 Years and Older, Nikolski, 1980	746
Table 413 . . . Household Type and Relationship, Nikolski, 1980.	746
Table 414 . . . Permanent Fund Dividend Recipients, Nikolski, 1982 - 1985	748
Table 415 . . . Final Enrollment by Grade, Nikolski, 1956/57-1986/87.	749
Table 416 . . . Selected Labor Force Data, Nikolski, 1980 . . .	751
Table 417 . . . Covered Industry Employment, Nikolski Area, 1980-1986	752
Table 418 . . . Population Estimates, St. Paul, 1825 - 1987	758
Table 419 . . . Population Trends, St. Paul, 1880 - 1985 . . .	760
Table 420 . . . Pribilof Islands Population, 1880 - 1980 . . .	760
Table 421 . . . Destination and Reason for Permanent Departures from St. Paul, 1926 - 1966	763

	Page
Table 422 . . . Summary of Permanent Arrivals and Departures, By Age Group, St. Paul, 1926-1966	764
Table 423 . . . Natural Increase, St. Paul, 1970 - 1984 . . .	765
Table 424 . . . Change in Alaska Native Population Composition, St. Paul, 1980 - 1986	766
Table 425 . . . Permanent Fund Dividend Recipients, St. Paul, 1982 -1985	767
Table 426 . . . Population Composition, St. Paul, 1926-1966	772
Table 427 . . . Population Composition, St. Paul, 1970 . . .	773
Table 428 . . . Population Composition, St. Paul, 1980 . . .	774
Table 429 . . . Population Composition, St. Paul, 1985 . . .	775
Table 430 . . . Population Composition, St. Paul, 1986 . . .	776
Table 431 . . . Marital Status, By Sex, Persons 15 Years and Older, St. Paul, 1926 - 1966	777
Table 432 . . . Marital Status, By Sex, Persons 15 Years and Older, St. Paul, 1980	778
Table 433 . . . Household Type and Relationship, St. Paul, 1980.	778
Table 434 . . . Composition of Bureau of Commercial Fisheries Workforce, St. Paul, 1956-1967	782
Table 435 . . . Selected Labor Force Data, St. Paul, 1980.. . . .	783
Table 436 . . . Average Annual Full-Time Employment, St. Paul, 1980.	784
Table 437 . . . Covered Industry Employment, Pribilof Islands Area, 1980 - 1986	785
Table 438 . . . St. Paul Native Employment, 1980	787
Table 439 . . . St. Paul Employment, 1982	788
Table 440 . . . St. Paul Employment, 1980 - 1986	789
Table 441 . . . Covered Industry Employment, Pribilof Islands Area, 1980.. . . .	791
Table 442 . . . Covered Industry Employment, Pribilof Islands Area, 1981...	792
Table 443 . . . Covered Industry Employment, Pribilof Islands Area, 1982.. . . .	793
Table 444 . . . Covered Industry Employment, Pribilof Islands Area, 1983.. . . .	794
Table 445 . . . Covered Industry Employment, Pribilof Islands Area, 1984...	795
Table 446 . . . Covered Industry Employment, Pribilof Islands Area, 1985.. . . .	796

	Page
Table 447 ... Covered Industry Employment, Pribilof Islands Area, 1986...	797

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I. INTRODUCTION

This is the first in of three volumes of a *technical reports* which compile, describe and analyze population and employment data for 21 rural communities in six Native regions of western and northern Alaska. The communities are: Barrow, Anaktuvuk Pass, Kaktovik, Point Hope, Wainwright, Kotzebue, Deering, **Kivalina**, Nome, **Gambell**, **Unalakleet**, **Alakanuk**, Aniak, Bethel, Scammon Bay, **Dillingham**, **Togiak**, **Nikolski**, **St. Paul**, Sand Point and **Unalaska**.

This report addresses general issues of methodology and terminology and the problems presented by historic and contemporary data sources. It also provides an overview of some broad demographic and employment trends affecting Alaska Natives or rural Alaska communities compared to State and national trends.

Section II defines key terms which will be used in the compilation of demographic and employment data and the methods to be used in the data analysis.

Section III evaluates historic and current secondary data sources on community population and employment.

Section IV contains detailed historic and current demographic and employment data for the 21 communities and employment data for regional and village Native corporations and for non-profit Native regional service agencies in several of the study communities.

Chapter V presents an annotated bibliography of sources of demographic and employment data for the study communities.

A brief description of the contents, of the other two volumes of the technical report are:

Volume II.

This report presents detailed historic and, current demographic and employment data for the study communities of Barrow, Anaktuvuk Pass, Kaktovik, Point Hope, Wainwright, Kotzebue, Deering, Kivalina, Nome, Gambell, and Unalakleet. A separate chapter is devoted to each individual community, with each chapter divided into three topical sections: past population trends; population composition; and trends in wage and salary employment.

Volume II.

This report presents detailed historic and current demographic and employment data for the study communities of Alakanuk, Aniak, Bethel, Scammon Bay, Dillingham, Togiak, Nikolski, St. Paul and Sand Point. A separate chapter is devoted to each individual community, with each chapter divided into three topical sections: past population trends; population composition; and trends in wage and salary employment.

Special Report No. 7, "Regional and Village Corporation Employment Profiles. "

This report compiles data on current employment by six Alaska Native Claims Settlement Act regional corporations (Arctic Slope Regional Corporation, NANA Regional Corporation, Bering Straits Regional Corporation, Calista Corporation, Bristol Bay Native Corporation and the Aleut Corporation), five regional non-profit service agencies (Maniilaq Association, Kawerak, Inc., Association of Village Council Presidents, Bristol Bay Native Association and Aleutian-Pribilof Islands Association) and ten ANCSA village corporations (Ukpeagvik Inupiat Corporation [Barrow], Olgoonik corporation [Wainwright], Kikiktagruk Inupiat Corporation [Kotzebue], Sitnasuak Corporation [Home], Choggiung Ltd. [merger of Dillingham, Ekuk, New Stuyahok and Portage Creek], Togiak Natives Ltd. [Togiak], Tanadgusix Corporation [Saint Paul], Ounalashka Corporation [Unalaska] and Chaluka Corporation [Nikolski].

BARROW

A. PAST POPULATION TRENDS

Of all *locations* on the North Slope, Barrow and Point Hope have the longest history of occupancy. The area around Barrow has reportedly been occupied for at least the last 5,000 years, with this occupation being continuous for the last **1,300** years (Schneider, Pedersen and Libbey, 1980).

Estimates of the **pre-contact** Eskimo population in the North Slope region vary. **Burch** (1975) estimates the 1850 population of the area now encompassed by the North Slope Borough to be approximately 2,925, broken down by geographic area as follows:

Colville River	575
Barrow	700
Northwest Coast	475
Utukok River	200
Point Hope	975

At that time, the region had already been visited by several explorers including **Beechey**, Franklin, Simpson and Kashevarov, but these visits reportedly involved little contact with the Native residents and resulted in no major changes in traditional lifestyles.

Around 1850, however, the intrusion of outsiders into the Alaska arctic accelerated, spurred initially by the search for Sir John Franklin. The H.M.S. Plover overwintered at Barrow for two seasons (1852-53), hoping to obtain information about the Franklin party, and was the first of a succession of more intensive and prolonged contacts between Europeans and

TABLE 1
POPULATION TRENDS
BARROW
1880 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1880	480*		
1890	398*	-17.1	
1900	314	-21.1	
1910	573*	82.5	
1920	416*	-27.4	
1929	412*	- 1.0	
1939	409*	- 0.7	
1950	951	132.5	
1960	1,314	38.2	
1970	2,104	60.1	
1980	2,267	7.7	
1981	2,539		12.0
1982	2,882		13.5
1983	2,912		1.0
1984	2,930		0.6
1985	3,075		4.9

* Censuses prior to 1950 include populations for both Barrow and Point Barrow (except for 1900 when no population was listed for Point Barrow), and the 1939 figure also includes **Browerville** which was listed separately by that Census. An additional 40 persons counted at **Walakpa Bay** in 1880 have not been included in the community's 1880 total population.

Sources: U.S. Census (1880 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

TABLE 2
POPULATION ESTIMATES
BARROW
1880 - 1986

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1880	480*		
1890	398*		
1900	314*		
1910	573*		
1920	416*		
1929	412*		
1939	409*		
1940		406	Masnick and Katz, 1976
1944		566	Masnick and Katz, 1976
1946		663	Masnick and Katz, 1976
1948		750	Browne, 1949
1950	951	956	Masnick and Katz, 1976
1951		1,026	Masnick and Katz, 1976
1954		1,157	Masnick and Katz, 1976
1957		1,274	Ray, 1959
1957		1,349	Masnick and Katz, 1976
1958		1,383	Masnick and Katz, 1976
1960	1,314		
1962		1,485	Masnick and Katz, 1976
1966		1,782	Masnick and Katz, 1976
1967		1,560	Bureau of Indian Affairs - includes 31 whites
1967		1,811**	Federal Field Committee - includes 160 whites
1968		2,150**	Alaska Area Native Health Service
1969		2,050**	Federal Field Committee - includes 250 whites
1969		1,993***	Alaska State Housing Authority, 1970
1970	2,104	1,827	Masnick and Katz, 1976
1974		2,163	North Slope Borough (Jan)
1975		2,418	U. S. Census Bureau
1975		2,141	North Slope Borough (July)

1976		2,471	U. S. Census Bureau
1976		2,389	North Slope Borough (July)
1977		2,306	North Slope Borough (July)
1979		3,228	North Slope Borough (July)
<hr/>			
1980	2,267	2,389	North Slope Borough Housing Survey - includes 687 non-Natives
1981	2,539****	2,539	North Slope Borough (July)
1982	2,882****	2,882	City of Barrow
1982		2,794	U. S. Census Bureau
1983	2,912****		
1984	2,930****		
1985	3,075****	3,016	North Slope Borough
1986		3,037	North Slope Borough

- * Censuses prior to 1950 include populations for both Barrow and Point Barrow (except for 1900 when no population was listed for Point Barrow) and the 1939 figure also includes **Browerville** which was listed separately by that Census. An additional 40 persons counted at **Walakpa Bay** in 1880 have not been included in the community's 1880 total population.
- ** Defined as Barrow and vicinity, presumably including both the Naval Arctic Research Laboratory and the DEW Line station.
- *** Estimate excluded children attending school outside the community, plus NARL and the DEW Line station. Including NARL and the DEW Line, the **1969** estimate **totalled 2,155**.
- **** Alaska Department of Labor estimates derived using U.S. Census methodology. Where these figures are the same as those of the Borough or the City of Barrow, the Department accepted local censuses or estimates.

Sources: U.S. Census (1880 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

Barrow area Natives. A few trading ships began to operate north of Norton Sound at about this time and American whalers began to visit the area in large numbers, spurred by high baleen prices after the collapse of the whale oil market around 1880.

The 1880 Census described settlement on the North Slope as follows:

“From point Hope to the eastward we find a series of villages, inhabited principally by reindeer hunters . . . Along that dreary, low ice-bound strip of coast between point Hope and point Barrow the scattered Inuit settlements also depend upon reindeer, seal, and walrus for their subsistence . . . From point Barrow eastward to the boundary the settlements are few and widely scattered . . .”

All told, the 1880 Census counted a total of 3,004 persons in the Arctic Division (between Cape Prince of Wales and the Colville River), including about 800 living in interior villages. Along the Arctic coast within the area now encompassed by the North Slope Borough, 1,102 Eskimos were counted in 13 settlements, plus an additional 250 people in interior villages in the Kuk River area (inland from modern day **Wainwright**) and another 400 living upriver in the **Noatak** River drainage. The coastal settlements were:

<u>Settlement</u>	<u>Location</u>	<u>Population</u>
Tikirak	Point Hope	276
Cape Dyer	Cape Dyer	15
Cape Lisburne	Cape Lisburne	13
Point Lay	Point Lay	30
Otok-kok	Icy Cape	50
Kolumatourok	Kilimantavi	45
Noons-agamute	Point Hope	74
Ootkai owik	Barrow	55
Pinoshuragin	Sea Horse Islands	29
Ootivakh	Barrow	225
Refuge Inlet	Walakpa Bay	40
Kokmullit	Point Barrow	200
Colville River	Colville River delta	50
<u>Total Coastal Population</u>		<u>1.102</u>

The 1880 Census counted several settlements in the immediate Barrow area, with the two largest, Ootivakh and **Kokmullit**, later referred to as Barrow (also called **Uglaamie**, **Utkiavie** and other variations of that name, as well as Cape Smythe) and Point Barrow (also called **Nuwuk** or **Nubook**) respectively. The combined population of settlements in the immediate Barrow area was 480 persons, plus another 40 people nearby at **Walakpa Bay**.

In **1882**, Lieutenant Ray counted only 410 **people living** along the coast between **Wainwright Inlet** and the **Colville River**. The accuracy of this count is unknown. It apparently did not include inland Eskimos then living along the upper reaches of the Kuk, Utukok and other rivers. Ray listed 23 families (130 people) at **Uglaamie** (Cape **Smythe/Barrow**) and another 31 families (150 people) at **Nuwuk** (Point Barrow). For Cape Smythe village, Ray listed the residents by name, noting (rather contradictorily) that there were 137 people (45 men, 52 women, 27 boys and 14 girls) living in 31 households. According to Spencer (1984), an influenza epidemic was the main reason for the sudden decline in population at Barrow.

The introduction of steam-driven ships into the arctic enabled whalers to overwinter in the region and resulted in increased contact with local populations. Commercial whaling became important at Barrow by the mid-1880s and extended eastward as far as Herschel Island by 1890. The first coastal whaling station was established at Point Barrow in 1883 (Brewer, 1942) and, a series of whaling stations was soon established along the coast between Cape Seppings (near **Kivalina**) and Point Barrow. These stations were maintained by a skeleton staff of whites, with the boat

crews primarily made up of Eskimos. Baleen was retained for the whaling station owners. The Eskimos were paid usually in the form of rifles, cartridges or other manufactured goods and retained the muktuk and meat for their own use.

Shore-based whaling introduced large quantities of Western goods to the region and created a demand for guns, ammunition, tools, food, liquor and other merchandise. It also disrupted traditional trading patterns and Eskimos from other areas along the coast and from the interior were drawn to Barrow (and Point Hope). This movement was exacerbated by a decline in the Arctic caribou herd in the latter part of the nineteenth century. To acquire trade items, Eskimos were hired to obtain meat, mainly caribou, for the whaling crews, placing additional demands on an already scarce resource. The whalers also put hunting pressure on sea mammal resources and introduced a variety of diseases.

The 1890 Census counted 3,222 persons in the Arctic District (which covered a larger area than that of the 1880 Census as it also included the south side of the Seward Peninsula), 1,011 of them in 8 locations along the coast within the approximate area now covered by the North Slope Borough. This was less than the number counted in 1880, despite the fact the 1890 Census counted 150 non-Natives (including the crew of the whaling vessel *Balaena*). The breakdown of the North Slope population by race, sex and location was as follows:

<u>Settlement</u>	<u>Whites</u>		<u>Indians</u>		<u>Other</u>		<u>Total</u>	
	Male	Female	Male	Female	Male	Female	Male	Female
Point Hope	5	0	150	145	1	0	156	145
Point Lay	0	0	45	32	0	0	45	32
Wainwright Inlet	0	0	38	34	0	0	38	34
Point Belcher	59	0	17	21	17	0	93	21
Atnik	0	0	18	16	0	0	18	16
Sea Horse Island	2	0	8	5	0	0	10	5
Cape Smythe	46	0	92	97	11	0	149	97
Point Barrow	1	0	82	61	8	0	91	61
<u>Total</u>	<u>113</u>	<u>0</u>	<u>450</u>	<u>411</u>	<u>37</u>	<u>0</u>	<u>600</u>	<u>411</u>

The 1890 Census count for the immediate Barrow area (Cape Smythe and Point Barrow) **totalled** 398, including 66 non-Natives. Excluding the non-Natives, the population of greater Barrow (even omitting persons counted at Walakpa Bay in 1880) had declined by almost one-third in a single decade.

It is not possible to document the accuracy of these **early** censuses, given the semi-nomadic existence of the inhabitants and the difficulties involved in counting them. Nevertheless, it was apparent to observers at that time that a decline in the Native population had taken place. The 1890 Census mentioned that the people of northwest Alaska were being decimated by venereal, bronchial and pulmonary diseases. Starvation also took its toll. Brewer (1942) described an influenza epidemic which killed a group of inland Eskimos (more than 200 people according to Chance) visiting Barrow in **1901** and a measles epidemic in Barrow/Point Barrow shortly thereafter which killed another 126 people.

Larsen and Rainey estimated the Eskimo population of arctic Alaska around the turn of the century to be about 3,000 (including people living on the

southwest side of the Brooks Range and along the Noatak, Kobuk and Selawik Rivers as far south as Hotham Inlet). Gubser (1965) estimated that about 1,000 Eskimos lived in the Brooks Range in the 1880s. By adding Gubser's estimates to counts by the 1880 and 1890 Censuses, probably about 2,000 Eskimos lived within the present North Slope Borough boundaries in the late 1800s (Jamison, 1976). This was a decline of close to one-third of the region's population since 1850 (using Burch's estimate for the pre-contact period),

By the late 1800s, the plight of the Eskimos was well documented and pressure was put on the U.S. government to take action. One response was the establishment of schools at Barrow, Point Hope and Wales in 1890. In addition, medical missionaries arrived at both Barrow and Point Hope during the 1890s. The depleted state of Eskimo food sources, principally caribou, was also a matter of government concern. However, the initial impetus for the importation of reindeer in the Barrow area was in response to the 1897 stranding of 275 crewmen there for a year after six whaling vessels had become trapped in the ice. Since Barrow Eskimos had provided food for these people, many of the 448 animals sent overland from Teller and points south were eventually given to the villagers (Chance, 1966).

The 1900 Census counted 314 persons at Cape Smythe (Barrow) but listed none at Point Barrow. (This does not mean that there was no one living at Point Barrow or that it was not counted, merely that it was not listed as this Census did not publish statistics for very many individual locations).

The bottom fell out of the baleen market in 1908 and a disruptive era in North Slope history was essentially over. After the demise of the whaling industry, fur traders became established along the Arctic coast and Eskimos were encouraged to turn to trapping as a means of obtaining the Western goods to which they had become accustomed. Trapping activities encouraged dispersment of settlement into areas not previously inhabited on a permanent basis, particularly areas along the coast east of Barrow to the Canadian border.

The reindeer industry also became important on the North Slope in the early years of the twentieth century. With the Arctic caribou herd population at an extremely low level at this time (perhaps as few as 15,000 head although the herd began to increase again around 1910), there was little competition for forage and reindeer populations grew rapidly. There were close to 40,000 reindeer in the Barrow area by 1934 (Milan, 1964). However, the success of reindeer herding on the North Slope was only temporary and Masnick and Katz (1974) noted that the industry began to collapse here during the mid 1920s when the price dropped from \$5 to \$2 per carcass. Through a combination of poor herding practices, overgrazing, disease and predation, the North Slope herds were only a fraction of their former size by 1940. In 1948, Olson (December 1969) noted that there were still two reindeer herds operated out of Barrow and another out of Cape Halkett with a combined total of only about 2,250 animals. Today, there are no reindeer on the North Slope.

The 1910 Census listed 446 persons at Barrow village and another 127 at Point Barrow, for a total of 573. The community's population did not approach this figure again until the 1940s. Trapping continued as a major economic activity for many Eskimo households, with a lesser number engaged in reindeer herding activities. The 1920 Census counted 322 persons at Barrow village and another 94 at Point Barrow, for a combined total of 416, a decline of about 27 percent since 1910. This figure remained virtually unchanged until after 1940, indicating that a significant amount of out-migration took place. The fur market crashed in the Depression (with fox pelts previously selling for between \$40 and \$100 each falling to as little as \$5 each in 1932) and, as elsewhere on the North Slope, the 1930s and early 1940s were a period of severe economic hardship for Barrow area residents.

The beginnings of modern Barrow coincided with petroleum exploration activities in the then Naval Petroleum Reserve No. 4 (now NPR-A) between 1944 and 1953 and the associated construction of the Naval Arctic Research Laboratory at Barrow. These activities employed large numbers of Eskimos and attracted in-migration from other villages of the region. The Pet-4 exploration period was followed almost immediately by construction of the DEW Line system which took place between 1953 and 1957 and Barrow continued to grow at the expense of other North Slope settlements. Nevertheless, growth rates were not consistently high during this period. Rice, Saroff and Fuller (1964) noted that each of the spasms of military construction created a boom for several years, followed by a "bust".

Between 1939 and 1950, Barrow's population grew by over 130 percent from 409 to 951 persons (unlike **Wainwright** which lost about one-third of its population during the same period). Also during this decade, Point Barrow ceased to exist as a separate settlement when the last residents moved south to Barrow in 1942 (Spencer, 1959).

Barrow grew another 38 percent between 1950 and **1960**, largely in response to **DEW** Line construction activities, and again grew at an accelerated rate (60 percent) between 1960 and 1970, primarily due to a continued high level of construction of government facilities (hospital, high school, airport, utilities and other projects). In 1940, it had **still** been possible for Barrow's population to survive in a largely subsistence economy. However, the concentration of people in a dominant community (Barrow) made the return to a greater dependence on subsistence impractical as the limited resources of this region require more dispersed settlement.

Not only did economic activities in the Barrow area attract villagers from the region, but they also resulted in an influx of significant numbers of non-Natives for the first time since the whaling era. This group was primarily made up of professional people, many of whom lived in government enclaves associated with the DEW Line, NARL, hospital, school and Weather Bureau complexes, and few had dependents. Another factor in high rates of population growth in Barrow in the post-War period was a growth in the rate of net natural increase resulting from a combination of high fertility rates (until slowed by the introduction of birth control devices in the

mid-1960s), declining infant mortality rates and increased life expectancy.

In retrospect, the 1967 discovery of the Prudhoe Bay oilfield was the single major event affecting subsequent population and economic growth at Barrow. The Prudhoe Bay discovery provided the tax base which encouraged formation of the North Slope Borough in 1972 and enabled implementation of the Borough's ambitious capital improvements program. Passage of the Alaska Native Claims Settlement Act in 1971 also marked a major change in the role of Alaska Natives in the region.

The Arctic Slope Regional Corporation (and, to a lesser extent, the Ukpiaqvik Inupiat Corporation) and the Borough opened up a range of new employment opportunities for local residents and also contributed to a further influx of whites and other non-Natives into the community. On the other hand, the planned out-migration of Eskimos from Barrow to resettle the traditional villages of Atkasuk, Nuiqsut and Point Lay resulted in a decline in the number of Eskimos living in Barrow during the 1970 to 1980 decade. Their place was taken by whites, most of whom were either single or were married couples with no dependents. As a result, despite a boom in economic activity and greatly increased demands for housing, Barrow's population grew only 7.7 percent between 1970 and 1980, slower than at any time since the 1930s. According to the 1980 Census, Barrow had a population of 2,267 (after an adjustment to include the NARL base). However, it seems likely that the 1980 Census count may still have been low

as Alaska Consultants, Inc. counted 2,389 people here (excluding NARL) in June of the same year.

As elsewhere on the North Slope, Borough capital improvements program spending greatly increased during the early **1980s** and this was accompanied by further rapid population growth. On the other hand, the NARL facility was "**mothballed**" during this **period**, with the number of personnel stationed here declining from 156 in 1980 to a reported **64** in **1982** and to about 30 in 1983.

Using Alaska Department of Labor estimates, Barrow grew 35.6 percent between 1980 and 1985, with most of this growth taking place between 1980 and 1982. (The 1982 population figure of 2,882 was derived from a census conducted by the City of Barrow). Although changes in Department of Labor methodology after 1982 may have been a factor, it is clear that with the decline in Borough capital improvement program spending since 1984, this period of rapid population growth has ended. A Borough-sponsored census conducted in 1985 counted 3,016 residents, confirming the Department of Labor's estimate of 3,075 for the same year.

B. POPULATION COMPOSITION

Like other North Slope communities, the outstanding feature of Barrow's population composition is that most local residents are Eskimos. However, non-Natives have been a significant element in the local population since the whaling era, initially due to government decisions as to the location

of school and hospital facilities and, later, because Barrow was selected as the base for petroleum exploration activities in Petroleum Reserve No. 4 between 1944 and 1953 and as the site of the Naval Arctic Research Laboratory. Once Barrow became established as the dominant center in the region, other governmental services tended to concentrate here, leading to yet more in-migration of non-Natives.

The proportion of non-Natives has risen in recent years. As recently as 1970, 90.5 percent of the people in this town were Eskimo. By contrast, the 1980 Census found that although Eskimos remained the dominant ethnic group, Alaska Natives accounted for a much lower 77.9 percent of the community's population. The 1980 North Slope Borough housing survey, conducted in June of the same year, found an even lower proportion (71.2 percent) of Alaska Natives. If the population of the former Naval Arctic Research Laboratory and the DEW Line station had been included, the proportion of Alaska Natives in Barrow was estimated by Alaska Consultants, Inc. (1982) to be closer to 70 percent. The 1985 Barrow census conducted by the North Slope Borough found that the proportion of Alaska Natives (including Alaska Eskimo, Indian/Alut and American Indian categories) had fallen still further to 61.8 percent of the 2,980 people for whom race information was available.

Another trend observable since 1980 has been an increasing number of non-Natives other than whites. This phenomenon was mentioned by Alaska Consultants, Inc. (January 1984) and was examined in some detail by the Chilkat Institute (1986). The 1985 Borough census counted 142 Orientals,

50 Hispanics and 32 blacks, representing a small but significant percentage of the community's population.

An examination of population data for Barrow since 1960 indicates that non-Natives have long constituted a significance beyond their number because of their heavy concentration in the young adult age groups. (Non-Natives have relatively few dependents and almost none retire here). Although non-Natives accounted for less than 10 percent of Barrow's total population in 1970, they made up almost one-quarter (**22.6** percent) of the community's population between the ages of 25 and 34. Similarly, the **1980** Census and the 1980 housing survey found that non-Natives accounted for 38.8 and 43.8 percent respectively of the population in the same age groups.

The increased proportion of non-Natives in Barrow is due both to an **out-**migration of Eskimos and to an influx of whites. During the **1970s**, three former traditional villages (**Atqasuk, Nuiqsut** and Point Lay) were re-established, mainly by Eskimos from Barrow. Largely as a result, the Eskimo population of Barrow declined between 1970 and 1980. The U.S. Census had counted 1,905 Alaska Natives in Barrow in 1970, 185 more than the 1,720 recorded in 1980. This decline in Alaska Native population was offset by an influx of whites, primarily in response to increased employment opportunities afforded by the North Slope Borough and the Arctic Slope Regional Corporation. The recency (and **impermanence**) of the non-Native migration into Barrow is indicated by the 1980 housing survey where 161 of the 185 non-Native heads of household for whom information was available had moved to the community during the prior five years.

Several detailed population studies have been conducted in Barrow, including those by Masnick and Katz (in 1974), Alaska Consultants, Inc. (in 1980) and the North Slope Borough (in 1985), as well as U.S. Census counts. Using these data, the age and sex characteristics of Barrow's population were reviewed to determine changes and trends which have occurred during the past twenty-five years.

Masnick and Katz were primarily concerned with examining trends in fertility in relationship to changes in social and economic conditions. They concluded that females in those age groups who began childbearing during times of economic adversity and who had early experience in controlling fertility (i.e. birth control devices) were better able to adjust their level of natality when economic conditions were bad during later stages of their life cycle. By contrast, those who began their reproductive years under a climate of prosperity had rapid early childbearing and were less able to control fertility at later ages, even when the economy was depressed. These findings may be relevant to a marked increase in the number of young children in Barrow since 1980, as indicated by the 1985 Borough census and Permanent Fund dividend statistics.

A review of age and sex characteristics of Barrow's population indicates that this community possesses some peculiarly Alaskan characteristics to an exaggerated degree. According to the 1980 North Slope Borough housing survey, males in Barrow outnumbered females by a 55 to 45 percent margin

although this disparity was less marked among the community's Native (52 to 48 percent) than its non-Native (61 to 39 percent) population. The 1985 Borough census found the local predominance of males (53.2 percent) over females (46.8 percent) to be little changed. These male to female ratios are similar to 1980 Statewide figures (53 percent males and 47 percent females) but are unlike the nation as a whole where females outnumber males.

Barrow's population is young but the median age of the population rose markedly between 1960 and 1985. The 1960 Census found the median age of males in Barrow to be only 14.2 and that of females to be 13.7. At that time, Native birth rates were extremely high and whites were a relatively insignificant part of the local population. By 1970, non-Natives remained a minor element. However, the massive introduction of birth control devices in the mid-1960s (together with further declines in tuberculosis rates) were beginning to be reflected in higher median ages. The 1970 Census recorded a median age of 17.8 for males and 16.5 for females (with figures for Alaska Natives alone being slightly lower at 17.2 and 16.0 respectively).

At the time of the 1980 Census and the 1980 housing survey, non-Natives were a larger element in the local population but the median age of the Native population had also undergone a further significant increase. The Census and the 1980 housing survey's findings were almost identical. The Census found the median age of males in the community to be 25.4 and that of females to be 22.4 (with Alaska Natives registering 22.7 and 21.6 for

males and females respectively), compared with 26.3 and 25.8 recorded by the Census for males and females Statewide. Both Barrow and the State were unlike the nation as a whole where the median age of the population was a much older 30.0 in 1980. The 1985 Borough census found that the median age of Barrow's population had risen still more to 26.6 for males and 23.8 for females, presumably due in **large** part to a further increase in the proportion of non-Natives in the community. However, this trend can be expected to reverse itself if the recent dramatic increase in the number of young children continues.

Household densities are another indicator of population change. However, these changes are masked in Barrow and most rural Alaska communities because of the greater availability of housing in recent years. In Barrow, housing initially financed by the Farmers Home Administration and others in the late 1960s and early 1970s and, more recently, by the North Slope Borough and some private sector sponsors, has permitted the dispersal of families in a manner more akin to Western norms. The 1970 Census recorded an average of 5.6 persons per unit in Barrow. This fell dramatically by 1980 when both the Census and the 1980 housing survey recorded an average of 3.4 persons per unit, although the housing survey found a much lower average of 2.6 persons per unit for non-Natives than the 4.2 persons per unit for Native families. (The non-Native housing densities in Barrow in 1980 were lower than the 2.93 average Statewide or the 2.75 national average). The 1985 Borough census found an average of 3.5 persons per unit, possibly reflecting an increase in the size of Native households

TABLE 3

POPULATION COMPOSITION
BARROW
1960

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 5 years							148	133	281
5 - 9							219)	202)	421)
10 - 14)))
15 - 19							(78	(75	(153
20 - 24							(((
25 - 29							109)	74)	183)
30 - 34)))
35 - 39							(58	(49	(107
40 - 44							(((
45 - 49							46)	51)	97)
50 - 54)))
55 - 59							(24	(13	(37
60 - 64							(((
65 - 69)))
70 - 74							15)	20)	35)
75 and over)))
<u>TOTAL</u>							<u>697</u>	<u>617</u>	<u>1,314</u>
<u>Median Age</u>							<u>14.2</u>	<u>13.7</u>	<u>13.9</u>

Source: U.S. census.

TABLE 4
POPULATION COMPOSITION
BARROW
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
<i>Under 5 years</i>	134	142	276	18	12	30	152	154	306
5 - 9	315)	302)	617)	11)	11)	22)	175	186	361
10 - 14	)	)	)	)	)	)	151	127	278
15 - 19	(198	(199	(397	(14	(14	(28	123	127	250
20 - 24	(	(	(	(	(	(	89	86	175
25 - 29	(113)	(103)	(216)	(39)	(24)	(63)	90	68	158
30 - 34	)	)	)	)	)	)	62	59	121
35 - 39	(94	(71	(165	(14	(9	(23	59	35	94
40 - 44	(	(	(	(	(	(	49	45	94
45 - 49	(55)	(51)	(106)	(6)	(8)	(14)	39	33	72
50 - 54	)	)	)	)	)	)	22	26	48
55 - 59	(46	(35	(81	(6	(4	(10	28	27	55
60 - 64	(	(	(	(	(	(	24	12	36
65 - 69	)	)	)	)	)	)	16	9	25
70 - 74	(28)	(23)	(51)	(4)	(1)	(5)	5	5	10
75 and over	)	)	)	)	)	)	11	10	21
<u>TOTAL</u>	<u>983</u>	<u>926</u>	<u>1,909</u>	<u>112</u>	<u>83</u>	<u>195</u>	<u>1,095</u>	<u>1,009</u>	<u>2,104</u>
<u>Median Age</u>	<u>17.2</u>	<u>16.0</u>	<u>16.6</u>	<u>28.5</u>	<u>27.9</u>	<u>27.9</u>	<u>17.8</u>	<u>16.5</u>	<u>17.1</u>

source : U.S. census.

TABLE 5
POPULATION COMPOSITION
BARROW
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	89	85	174	10	21	31	99	106	205
5 - 9	89	93	182	12	14	26	101	107	208
10 - 14	86	96	182	17	9	26	103	105	208
15 - 19	125	120	245	17	10	27	142	130	272
20 - 24	105	97	202	31	26	57	136	123	259
25 - 29	96	79	175	61	45	106	157	124	281
30 - 34	64	57	121	54	28	82	118	85	203
35 - 39	44	45	89	26	11	37	70	56	126
40 - 44	32	32	64	21	9	30	53	41	94
45 - 49	44	28	72	25	3	28	69	31	100
50 - 54	34	29	63	8	8	16	42	37	79
55 - 59	29	20	49	7	3	10	36	23	59
60 - 64	14	15	29	4	3	7	18	18	36
65 - 69	18	19	37	1	2	3	19	21	40
70 - 74	13	6	19	1	0	1	14	6	20
75 and over	10	7	17	0	0	0	10	7	17
<u>TOTAL</u>	<u>892</u>	<u>828</u>	<u>1,720</u>	<u>295</u>	<u>192</u>	<u>487</u>	<u>1,187</u>	<u>1,020</u>	<u>2,207</u>
<u>Median Age</u>	<u>22.7</u>	<u>21.6</u>	<u>21.9</u>	<u>29.9</u>	<u>26.3</u>	<u>28.6</u>	<u>25.4</u>	<u>22.4</u>	<u>24.1</u>

source : Us. census.

TABLE 6
POPULATION COMPOSITION*
BARROW
JUNE 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	92	92	184	11	22	33	103	114	217
5 - 9	78	83	161	14	16	30	92	99	191
10 - 14	85	101	186	18	9	27	103	110	213
15 - 19	122	117	239	19	21	40	141	138	279
20 - 24	107	88	195	43	33	76	150	121	271
25 - 29	101	87	188	85	55	140	186	142	328
30 - 34	63	53	116	65	32	97	128	85	213
35 - 39	45	31	76	25	19	44	70	50	120
40 - 44	38	33	71	28	10	38	66	43	109
45 - 49	38	23	61	28	9	37	66	32	98
50 - 54	29	26	55	10	12	22	39	38	77
55 - 59	21	21	42	9	2	11	30	23	53
60 - 64	17	13	30	4	3	7	21	16	37
65 - 69	16	21	37	1	2	3	17	23	40
70 - 74	9	5	14	2	0	2	11	5	16
75 and over	15	7	22	1	0	1	16	7	23
<u>TOTAL</u>	<u>876</u>	<u>801</u>	<u>1,677</u>	<u>363</u>	<u>245</u>	<u>608</u>	<u>1,239</u>	<u>1,046</u>	<u>2,285</u>
<u>Median Age</u>	<u>23.1</u>	<u>20.3</u>	<u>21.8</u>	<u>29.3</u>	<u>26.8</u>	<u>28.4</u>	<u>25.8</u>	<u>22.7</u>	<u>24.5</u>

* Figures exclude a total of 104 persons (16 Alaska Native males, 9 Alaska Native females, 56 non-Native males and 23 non-Native females) for whom no age information was provided. Population at the Naval Arctic Research Laboratory (NARL) and the DEW Line site is also excluded.

source : Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 7
POPULATION COMPOSITION*
BARROW
1985

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 5 years							222	229	451
5 - 9							109	126	235
10 - 14							101	96	197
15 - 19							119	120	239
20 - 24							181	166	347
25 - 29							197	148	345
30 - 34							163	145	308
35 - 39							139	108	247
40 - 44							105	69	174
45 - 49							57	46	103
50 - 54							61	39	100
55 - 59							51	29	80
60 - 64							27	26	53
65 - 69							18	14	32
70 - 74							11	20	31
75 and over							25	14	39
<u>TOTAL</u>							<u>1,586</u>	<u>1,395</u>	<u>2,981</u>
<u>Median Age</u>							<u>26.6</u>	<u>23.8</u>	<u>25.3</u>

* Figures exclude 35 persons because of coding errors.

source : North Slope Borough.

TABLE 8
 PERMANENT FUND DIVIDEND RECIPIENTS
 BARROW
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		284	289	334
5 - 9			206	239
10 - 14			186	192
15 - 19			215	207
20 - 24			287	342
25 - 29			292	342
30 - 34			303	340
35 - 39			213	256
40 - 44			141	160
45 - 49			100	111
50 - 54			83	106
55 - 59			75	78
60 - 64			47	64
65 - 69			27	33
70 - 74			31	29
75 & over			29	27
Unknown	1	12	8	5
<u>TOTAL</u>	<u>2,662</u>	<u>2,564</u>	<u>2,532</u>	<u>2,865</u>

Note: 1982 age breakdown: 0-17 - 869; 18-27 - 608; 28-37 - 566; 38-47 - 272; 48-57 - 192; 58-67 - 91; 68-77 - 51; 78+ - 12; Unknown - 1; Total - 2,662.
 1983 age breakdown: 0-4 - 284; 5-17 - 504; 18-27 - 584; 28-37 - 575; 38-47 - 274; 48-57 - 176; 58-67 - 103; 68-77 - 41; 78+ - 11; Unknown - 12; Total - 2,564.

Source: Alaska Department of Revenue.

since 1980 as that census counted significantly more non-Natives than had been the case in 1980.

Because of its large non-Native component, Barrow's population is much less stable and permanent than that of other North Slope communities. According to the 1980 North Slope Borough housing survey, about 75 percent of the Alaska Native heads of household had lived here since before 1960. By contrast, 87 percent of the non-Native heads of household interviewed had lived here for less than five years.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Barrow's modern economy dates from the Navy's exploration program in Petroleum Reserve No. 4 which took place between 1944 and 1953. The commercial whaling era had first introduced the residents of the region to a cash economy. However, that era was over by 1908 and subsequent trapping and reindeer herding activities had also crashed by the mid-1930s, forcing area residents back into a largely subsistence lifestyle. Thus, few people here had much experience with wage and salary employment before the 1940s.

As a result of Pet-4 exploration and other government construction activities during the 1940s and 1950s, Barrow grew rapidly and became the dominant community on the North Slope. In turn, this also made Barrow the least dependent on subsistence activities, if only because the town became too large for its population to be supported by the resources of its

surrounding region. The impact of military activities on Barrow during this period has been documented by Browne (1949), Rice, Saroff and Fuller (1964), Chance (1966) and others.

Browne described Barrow as "the largest and most prosperous Eskimo village in Alaska", primarily because of the Navy's Pet-4 activities. He stated:

"The Navy employs from 60 to 90 Eskimos annually at a basic wage rate of \$1.38 per hour. Working a 63-hour week, their monthly incomes range from \$500 to \$600.

The Eskimos are employed as common laborers, carpenters, catskinners and truck drivers. . . . Eskimo veterans receive priority for project jobs, eight now being employed.

Five women in the village are kept busy sewing and repairing project workers' clothing. This concession amounts to \$350 monthly and is placed with women who have no other means of support.

During the annual Navy expedition to Barrow, almost everyone in the village is employed in lighterage and beach stockpiling operations."

Chance's comments on this era are also relevant:

"The first significant postwar surge in Eskimo employment occurred at Point Barrow in 1946. Two years previously, the United States Navy undertook to explore the possibility of obtaining petroleum in the north Alaskan region. A naval base was established and in 1946 thirty-five Eskimos were hired as laborers. Later, the number increased to eighty. Between 1946 and 1952 from seventy-five to eighty Eskimos were employed regularly at the naval base. Although seasonal layoffs were common, these early economic opportunities had considerable influence on the entire north Alaskan coast. As Eskimo from Wainwright, Point Lay, Kaktovik, and elsewhere moved to Barrow to take advantage of the new jobs, working a sixty-three hour week with time and a half for overtime at regular skilled and semi skilled wages, the economic impact on the cultural life of this village was immense. Motion picture theaters, coffee shops, pool halls, and new stores selling luxury items gave Barrow an entirely new urban character.

Even more dramatic economic and cultural changes followed the initial construction of the DEW Line radar installations across Alaska and the rest of the North American arctic. So many jobs were available that Eskimo from as far away as Aklavik in Canada took up residence near the construction sites. Overtime salaries enabled some Eskimo

families to earn as much as \$8,000 to \$10,000 a year, and these incomes continued until the completion of construction in 1957. . . ."

Rice, **Saroff** and **Fuller's** report was prepared in 1963, after the Navy petroleum exploration and the DEW Line construction periods. At that time, Barrow's economy was described as being dependent on the Arctic Research Laboratory, the Navy Base, Wien Airlines, the Public Health Service, the Bureau of Indian Affairs and the DEW Line site. Other major employers were said to include restaurants, general stores and hotels plus the miscellaneous employment of a few **local** persons by the Weather Bureau, the Bureau of Standards, a bank and the post office. The Employment Security Division of the Alaska Department of Labor estimated that total average employment at Barrow in 1962 amounted to approximately 251 jobs.

Specifically, Rice, **Saroff** and Fuller noted that the Arctic Research Laboratory employed 31 **local** Eskimos and the Navy Base another 38. An additional 20 Eskimos were said to have been employed by the Public Health Service and 30 to 40 by the Bureau of Indian Affairs. Thus, four employers accounted for half the total employment of local persons at that time. At the time a significant, although temporary, increase in employment locally was anticipated (and did eventuate) during the mid-1960s as a result of a major expansion of government facilities (including a high school, a new airport, a new hospital and utilities projects).

A 1969 survey of employment in Barrow by the Alaska State Housing Authority (July 1970) counted a total of 554 jobs, although 113 of these were considered to be seasonal. At that time, the major employers were Holmes

and **Narver** (then operators of the NARL base) which employed 147 persons, the Naval Arctic Research Laboratory with 117 employees (40 of them seasonal), the various divisions of the Bureau of Indian Affairs which together had 120 employees (including 38 seasonal), the U.S. Public Health Service with 37 permanent employees, the DEW Line with 20 permanent employees, Wien Consolidated Airlines with 20 employees (6 of whom were seasonal) and Shontz's Store with 19 permanent employees. Another 20 local people were estimated to work temporarily at **Prudhoe** Bay. None of the remaining employers had more than 10 employees. This group included the Weather Bureau, the post office, the Federal Aviation Agency, the Native Co-op Store, the Top of the World Hotel, Brewer's Stores, Brewer's Hotel and Brewer's Restaurant, a bank, a theater and a cafe.

Passage of the Alaska Native Claims Settlement Act in 1971 and formation of the North Slope Borough in 1972 marked the beginning of a new era of economic growth in Barrow (and other North Slope communities) and development of a locally based economy, replacing one almost entirely dependent on decisions made by a remote federal bureaucracy. Also during the 1970s, construction of the Trans Alaska Pipeline project had a modest impact on the community. According to **Alyeska** Pipeline Service Company records (Alaska Review of Business and Economic Conditions, February 1978), 117 Alaska Native residents of Barrow worked at least temporarily on this project.

Some idea of the extent of economic change in Barrow during the 1970s and 1980s can be gained by comparing counts of employment in the community by

Alaska Consultants, Inc. in 1977, 1978 and 1982. Data from the 1980 Census and the 1980 North Slope Borough housing survey also provide some insight into the components of employment change although these data are not directly comparable with employer-generated information.

A count of employment in Barrow was undertaken by Alaska Consultants, Inc. in December 1977. It excluded jobs held by Barrow residents in areas outside the community? such as at Prudhoe Bay, but included those associated with government installations such as the Naval Arctic Research Laboratory and the DEW Line station. Each local employer was contacted and the results were converted to average annual full-time employment.

A total of 915 locally based jobs was counted, with close to 57 percent being in government occupations, most of them with the North Slope Borough general government (213.5) and the North Slope Borough School District. (191). The federal government was also a significant element in the local economy, with the U.S. Public Health Service (54 employees, including those in the Environmental Health Branch as well as the hospital) being the largest single federal employer.

Employment at the NARL base appeared to have declined between 1969 and 1977 as Alaska Consultants, Inc. counted 73 jobs with ITT (a successor to Holmes and Narver as base operators) and another 60 with the University of Alaska which then had the contract to operate the Research Laboratory. Also by 1977, the Bureau of Indian Affairs had ceased to be a major employer in the

community, mainly because the North Slope Borough had assumed responsibility for the provision of education services.

In 1977, the transportation, communication and public utilities sector was the largest employer after government, accounting for 173.75 jobs or 19 percent of total average annual full-time employment. . ITT was the single largest employer in this sector, followed by Barrow Utilities (20 jobs).

The service sector employed a total of 100.75 persons in 1977, with the largest single employer being the University of Alaska, all of whose employees were associated with NARL. Other major employers included the Top of the World Hotel (22 jobs) and Eskimos, Inc. (14 jobs), both of which are subsidiaries of the Arctic Slope Regional Corporation.

Except for 5 persons employed by a bank, all employment in the finance, insurance and real estate sector was with the head offices of the Arctic Slope Regional Corporation (40 jobs) and the Ukpeagvik Inupiat Corporation (3 jobs) in 1977. The trade sector totalled 56.5 jobs on an annual average basis, all of them with small employers except for the main community store, **Stuaqpak**, which employed 28 people. Other sectors, notably mining and contract construction had few employees.

A second count of employment in Barrow by Alaska Consultants, Inc. was undertaken in 1978. Except for an increase in the **transportation**, communication and public utilities, the contract construction and the finance, insurance and real estate sectors, no basic changes appear to have

taken place since 1977. Overall, average annual full-time employment was estimated to have increased by slightly more than 8 percent from the previous year.

Although the results of the 1980 North Slope Borough housing survey are not directly comparable with the 1977, 1978 and 1982 employment counts (the data were collected from individuals rather than employers and no attempt was made to ascertain if jobs were full-time or permanent), they nevertheless provide further insight into the composition of employment in the community because the results were recorded by race. Essentially all adult non-Natives in Barrow in 1980 were employed. In fact, of the 1,052 jobs counted, non-Natives accounted for 506, or 48.1 percent. Only one non-Native interviewed claimed some form of assistance as his or her major source of income. Even allowing for the fact that a much higher proportion of Barrow's Native population is in the very young and very old age ranges, labor force participation rates by Natives appear to be significantly below those of non-Natives. Nevertheless, unemployment was not considered to be a significant problem in the community among any race group at that time.

In addition to the 1980 housing survey, 1980 Census labor force and employment information for Barrow (including some comparisons with 1970) were examined. Like the housing survey, Census data are collected from individuals rather than employers and total employment data for the two surveys appear to be roughly comparable. The assignment of employment by industry sector by the Census at first glance appears inaccurate but is probably largely due to differences in classification among the

construction, services and public administration sectors. Using Standard Industrial Classification methodology, most employment in those categories would have instead been classed as government. However, the assignment of employment to the manufacturing sector by the Census is in error. The listing of 1970 employment by industry by the Census is similar to the 438 "steady" jobs counted by the Alaska State Housing Authority in 1969, but the accuracy of the assignment of employment by industry seems suspect.

A 1982 survey of employment in Barrow undertaken by Alaska Consultants, Inc. for the North Slope Borough counted a total of 1,345 jobs on an average annual full-time basis. This represented an increase of almost 36 percent over the 992 jobs counted here by Alaska Consultants, Inc. in 1978 using similar methodology.

In 1982, government employment remained the dominant sector in the local economy, with local government (all with the North Slope Borough except for 7 jobs with the City of Barrow) accounting for 44.3 percent of total employment. However, local government employment alone understates the economic impact of the North Slope Borough activities as most of the 260 jobs counted in contract construction were associated with North Slope Borough capital improvement program projects. This represented a change from earlier years when capital improvement program spending was at a lower level, with fewer outside contractors.

The other major change in the composition of Barrow's employment between 1978 and 1982 resulted from the decommissioning of NARL by the Navy in June

1981 and placing it in a caretaker status in September of the same year. (All research at the facility had ceased in September 1980 when the University of Alaska's contract was cancelled). At the time of the 1982 employment survey, the only people resident at the base were a skeleton maintenance crew and 24 persons associated with operation of the Barrow gas fields, a combined total of 29 jobs (all counted in mining). Declines in the transportation, communication and public utilities and the service sectors and an increase in mining were thus almost entirely due to the "mothballing" and changed function of NARL.

Other employment sectors generally showed relatively modest growth between 1978 and 1982. An exception was the federal government sector which declined slightly, due mainly to the increased range of services provided by the North Slope Borough and to the pull-out of some agencies with the closure of NARL. State employment remained a minor element in Barrow's economy although the number of jobs associated with the Court System grew after the establishment of a Superior Court here in 1982. (These gains were offset by a reduction in the number of locally based Department of Health and Social Services personnel).

The North Slope Borough has recently published some employment statistics for its member communities in an Economic Profile series, including the following information for Barrow:

	<u>North Slope Borough School District</u>	<u>North Slope Borough General Government</u>	<u>Village Corporation</u>	<u>City Government</u>
Oct. 1985	267	949	50	15
June 1986	249	635	155	17
Dec. 1987	275	734	47	17

It is not possible to compare these figures with those counted in the community by Alaska Consultants, Inc. in earlier years since Borough statistics do not purport to equate to annual year-round employment. However, they do indicate that the curtailment of capital improvements program spending has been reflected in a significant decline in Borough employment. If the Borough series is maintained in a consistent manner (preferably for the same month each year and with the addition of similar information for the Arctic Slope Regional Corporation) in the future, it could provide a useful barometer of employment change at the community level.

Some additional information is available for Barrow's **Inupiat** workforce (defined by the North Slope Borough as persons between the ages of 17 and 65), based on statistics derived by the Borough from the Planning Department's Barrow census, housing and employment survey conducted during the summer of 1985. The figures give information separately for **Inupiat** males and females and indicate that slightly more than one third of both **Inupiat** males and females in the local workforce were not working at the time of the summer 1985 survey. These figures do not purport to equate to average annual full-time employment. Furthermore, the exclusion of non-Natives obviously results in relatively low total employment figures.

Alaska Department of Labor monthly employment statistics for the Barrow area between 1980 and 1986 were examined and checked against earlier employment counts by Alaska Consultants, Inc. to see if they provide a

TABLE 9
 INUPIAT WORKFORCE BY WORK CATEGORY
 BARROW

<u>Work Category</u>	<u>Males</u>	<u>% of Male Population</u>	<u>% of Male Workforce</u>	<u>Females</u>	<u>% of Female Copulation</u>	<u>% of Female Workforce</u>	<u>Total</u>	<u>% of Total Population</u>	<u>% of Total Workforce</u>
Working	252	52.2	63.6	229	47.0	62.7	481	49.6	63.2
Not Working	144	29.8	36.4	136	27.9	37.3	280	28.9	36.8
<u>Total Workforce</u>	<u>396</u>	<u>82.0</u>	<u>100.0</u>	<u>365</u>	<u>74.9</u>	<u>100.0</u>	<u>761</u>	<u>78.5</u>	<u>100.0</u>
Not Part of the Workforce	87	18.0		122	25.1		209	21.5	
<u>Total Population</u>	<u>483</u>	<u>100.0</u>		<u>487</u>	<u>100.0</u>		<u>970</u>	<u>100.0</u>	

Note: Of 489 individuals who were not working and not part of the workforce, 209 were not looking for work within the last year and were therefore identified as not part of the workforce.

source : North Slope Borough Planning Department. December 1987. North Slope Borough Semi-Annual Economic Profile. (Volume III, Number 1).

reliable source of community employment information. Alaska Department of Labor personnel were also asked to explain apparent discrepancies where those existed.

With the possible exception of the finance, insurance and real estate sector, disclosure regulations do not adversely affect the availability of employment information by industry for Barrow. However, Department of Labor data should still be used with extreme caution because of the misallocation of employment, particularly in the mining and government sectors. Several petroleum industry employers active in the Prudhoe Bay area have been incorrectly coded to Barrow. Thus, in 1982, the Department of Labor recorded an average of 447 persons employed in the mining sector at Barrow, compared with only 32 persons counted by Alaska Consultants, Inc. in the community during the same year.

Local government employment in Barrow, as recorded by the Alaska Department of Labor, is also much too high because all Borough general government and Borough School District employment (both within and outside the North Slope Borough boundaries) has been assigned here. Furthermore, the employment statistics for this sector appear to be inconsistent with other counts. Alaska Consultants, Inc. counted an annual average of 596 local government employees in Barrow in 1982, compared with 1,254 recorded by the Department of Labor. Similarly, the North Slope Borough counted 1,231 local government employees in 1985 and 901 in 1986, compared with an annual average of 1,329 and 1,451 counted by the Department of Labor. Although the Borough statistics do not equate to average annual employment, the

apparent decline in local government employment which they indicate is more believable than an apparent increase indicated by Department of Labor data.

Alaska Department of Labor employment shown for the remaining sectors appears to be reasonably consistent with independent employment counts although that for the trade sector appears to be too high, as does State government.

TABLE 10
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
 BARROW
 1977

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	1.5	0.2
Contract Construction	17.0	1.9
Manufacturing	0.0	0.0
Transportation, Communication and Public Utilities	173.75	19.0
Trade	56.5	6.2
Finance, Insurance and Real Estate	48.0	5.2
Service	100.75	11.0
Government	517.5	56.6
Federal	(84.5)	(9.2)
State	(13.0)	(1.4)
Local	(420.0)	(45.9)
<u>TOTAL</u>	915.0	100.0

Source: Alaska Consultants, Inc.

TABLE 11
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
 BARROW
 1977

Agriculture, Forestry and Fishing	<u>0.0</u>
Mining	<u>1.5</u>
Husky Oil NPR Operations	1.5
Contract Construction	<u>17.0</u>
Blackstock	3.0
SKW	10.0
Skyline Construction	4.0
Manufacturing	<u>0.0</u>
Transportation, Communication and Public Utilities	<u>173.75</u>
AS I	<u>12.0</u>
Alaska Tour & Marketing Services	1.25
Arctic Guide	9.0
Barrow Utilities (BUECI)	20.0
FELEC (civilian portion of POW-Main DEW Line station)	14.0
Fauske's Water Service	2.0
Felair	8.0
General Telephone of Alaska	4.0
ITT (NARL operators)	73.0
Inupiat Water Delivery/Elphant Pot Sewage Haulers	5.5
Jen-Air	3.0
KBRW Radio	5.0
Taxi cab companies	4.0
Wien Air Alaska	13.0
Trade	<u>56.5</u>
Adams Bakery	3.5
Amway Products	0.5
Arctic Cash and Carry	6.0
Arctic Fuels	2.5
Arctic Kitchen	1.0
Avon Products	0.5
Brewer's Cafe	3.0
Brewer's Store #1	6.0
Eskimos Inc. (fuel department)	2.0
Ken's Restaurant	3.0
Stuaqpak	28.0
Weekend Boutique	0.5
Finance, Insurance and Real Estate	<u>48.0</u>
Alaska National Bank	5.0
Arctic Slope Regional Corporation	40.0
UIC	3.0

Services		<u>100.75</u>
Assembly of God Church		1.0
Eskimos Inc. (vehicle repair and maintenance portion)		14.0
Inupiat Cleaners "		1.0
Presbyterian Church		1.0
St. Patrick's Church		1.0
Top of the World Beauty Salon		0.5
Top of the World Gift Shop		0.25
Top of the World Hotel		22.0
University of Alaska (NARL)		60.0
Government		<u>517.5</u>
Federal		84.5
(Air Force - DEW Line station)	(2.0)	
(Alaska Legal Services)	(3.0)	
(Coast Guard Radio)	(2.0)	
(Federal Aviation Administration)	(8.0)	
(Fish and Wildlife Service)	(0.5)	
(NOAA)	(2.0)	
(National Weather Service)	(5.0)	
(Navy - NARL)	(3.0)	
(PHS Hospital)	(47.0)	
(PHS - Environmental Health)	(7.0)	
(Post Office)	(5.0)	
State		13.0
(Dept. of HSS, Barrow Health Center)	(5.0)	
(Dept. of HSS, Div. of Family Services)	(2.0)	
(Dept. of Labor, Manpower Center)	(2.0)	
(Dept. of Transportation - airport)	(1.5)	
(District Court System)	(2.5)	
Local		420.0
(City of Barrow - including liquor store)	(9.5)	
(North Slope Borough, general government)	(213.5)	
(North Slope Borough School District)	(191.0)	
(Inupiat University)	(6.0)	
<u>TOTAL EMPLOYMENT</u>		915.0

Source: Alaska Consultants, Inc.

TABLE 12
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
 BARROW
 1978

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0	0.0
Mining	1	0.1
Contract Construction	33	3.3
Manufacturing	0	0.0
Transportation, Communication and Public Utilities	233	23.5
Trade	55	5.5
Finance, Insurance and Real Estate	63	6.4
Service	97	9.8
Government	510	51.4
Federal	(82)	(8.3)
State	(13)	(1.3)
Local	(415)	(41.8)
<u>TOTAL</u>	<u>992</u>	100.0

Source: Alaska Consultants, Inc.

TABLE 13
 SELECTED LABOR FORCE DATA
 BARROW
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	2	0	2	0	2
Civilian Employed	393	252	627	372	999
Civilian Unemployed	30	20	38	22	60
Not in Labor Force	166	256	183	275	458
Labor Force Participation Rate	71.0%	51.0%	78.0%	58.0%	69.0%
Unemployment Rate: 1980	7.1%	7.4%	5.7%	5.6%	5.7%
1970			15.7%	6.8%	13.4%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	7	238
Manufacturing	4	9
Transportation	28	40
Communications	34	69
Trade	64	65
Finance, Insurance & Real Estate	11	61
Services	175	301
Public Administration	30	200
Other	75	16
<u>TOTAL</u>	<u>428</u>	<u>999</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 14
COMPOSITION OF EMPLOYMENT BY RACE AND SEX*
BARROW
JUNE 1980

<u>Employment Sector</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Mining	13	2	15	0	0	0	13	2	15
Contract Construction	31	2	33	55	3	58	86	5	91
Transportation, Communication and Public Utilities	31	11	42	44	8	52	75	19	94
Trade	9	9	18	21	10	31	30	19	49
Finance , Insurance and Real Estate	26	21	47	16	13	29	42	34	76
Services	6	13	19	25	9	34	31	22	53
Government									
Federal	10	9	19	24	22	46	34	31	65
State	2	2	4	1	3	4	3	5	8
Local	218	131	349	155	97	252	373	228	601
Construction	(129)	(22)	(151)	(45)	(7)	(52)	(174)	(29)	(203)
Non-Construction	(89)	(109)	(198)	(110)	(90)	(200)	(199)	(199)	(398)
<u>TOTAL</u>	<u>346</u>	<u>200</u>	<u>546</u>	<u>341</u>	<u>165</u>	<u>506</u>	<u>687</u>	<u>365</u>	<u>1,052</u>

* Employment figures exclude 61 Alaska Natives (33 males and 28 females) and 1 non-Native who listed various forms of assistance, primarily Social Security, as their major source of income. Employment figures also exclude 496 Alaska Natives (215 males and 281 females) and 77 non-Natives (27 males and 50 females) aged 16 and over for whom no employment information was provided or who claimed to be unemployed.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

source : Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 15
 MAJOR EMPLOYERS BY SECTOR*
 BARROW
 JUNE 1980

<u>Employment Sector and Employers</u>	<u>Number of Employees</u>
Mining	15
ARCO	(9)
Contract Construction	91
Eskimos Inc.	(27)
H.W. Blackstock	(14)
Arctic Slope Alaska General (ASAG)	(11)
Haske11	(8)
Transportation, Communication and Public Utilities	94
Barrow Utilities (BUECI)	(25)
ITT (FELEC)	(18)
Wien Air Alaska	(14)
Cape Smythe Air Service	(13)
Jen-Air	(5)
Trade	49
Stuaqpak	(13)
Pepes North of the Border Restaurant	(11)
Brewer's Store No. 1	(5)
Finance, Insurance and Real Estate	76
Arctic Slope Regional Corporation	(59)
Ukpeagvik Inupiat Corporation (UIC)	(11)
Alaska National Bank	(6)
Services	53
Inupiat Community of the Arctic Slope	(9)
Inupiat University	(7)
Tundra Tours	(5)
Government	
Federal Government	65
U.S. Public Health Service	(46)
Federal Aviation Administration	(7)
National Weather Service	(5)
Post Office	(5)
State Government	8

Local Government	601
North Slope Borough general government	(257)
North Slope Borough construction	(203)
North Slope Borough School District	(135)
City of Barrow	(6)

TOTAL 1,052

* Major employers defined as having at least 5 employees.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

Source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 16
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
 BARROW
 1982

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0	0.0
Mining	32	2.4
Contract Construction	260	19.3
Manufacturing	0	0.0
Transportation, Communication and Public Utilities	177	13.2
Trade	70	5.2
Finance, Insurance and Real Estate	60	4.5
Service	79	5.9
Government	667	49.6
Federal	(58)	(4.3)
State	(13)	(1.0)
Local	(596)	(44.3)
<u>TOTAL</u>	<u>1,345</u>	100.0

Note: Figures exclude local persons working in the Prudhoe Bay area.

Source: Alaska Consultants, Inc. December 1983. Background for
 Planning, City of Barrow. Prepared for the North Slope Borough.
 Anchorage.

TABLE 17
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
 BARROW

Agriculture, Forestry and Fishing	<u>0.0</u>
Min ing	<u>32.0</u>
ARCO	2.0
Husky Oil NPR Operations	24.0
ITT Arctic Services Inc. (gas field only)	5.0
Sohio	1.0
Contract Construction	<u>260.0</u>
Aamodt & Associates	3.0
Abel Electric	3.5
Arctic Slope Alaska General /Gregory Cook JV	101.0
Arctic Slope Alaska General (construction portion)	6.0
Barrow Mechanical	6.0
Benson's	2.0
Blackstock	8.0
Border Ventures	5.0
Busse ll Electric	2.0
Danner Drywall	2.0
Eskimos Inc. (construction portion)	3.0
Frank Moolin & Associates	20.5
Haske l 1	3.0
Kendall & Son Construction	2.0
Olympic Prefab ricators	4.0
Piquiniq Management Corporation	1.0
Redi Electric	5.5
SKW/Eskimos Inc. (including subcontractors)	50.0
Totem Electric	7.5
UIC Construction	22.0
Other	3.0
Manufacturing	<u>0.0</u>
Transportation, Communication and Public Utilities	<u>176.5</u>
AIA	5.0
Al ascom	1.0
Barrow Air	1.0
Barrow Cable TV	4.0
Barrow Utilities (BUECI)	28.0
Cape Smythe Air Service	34.0
FELEC (DEW Line operators)	20.0
General Telephone	6.0
Igloo Enterprises (Northern Air Freight portion)	2.0
Inupiat Water Delivery	4.0
Jean's Taxi Service	3.0
KBRW	7.0

Northern Air Freight	3.0
Tundra Taxi	4.0
Water Service II	3.5
Wien Air Alaska	16.0
Other	35.0
Trade	<u>70.5</u>
Arctic Automotive	1.0
Arctic Cash and Carry	5.0
Arcticade/Barrow Beverage	2.0
Brewer's Store #1	2.0
Donna's Kitchen	2.0
Eskimos Inc. (fuel/parts sales)	2.0
Flowers and Things	0.5
Ken's Restaurant	2.0
Mattie's Cafe	2.0
Pepe's North of the Border Mexican Restaurant	10.0
Qiruktavik & Company	2.0
Lucy's Fabric Shop	1.0
Sam & Lee's	5.0
Second Hand Rose	1.0
Stuaqqak	20.0
Tauqsigniagvik (airport gift shop)	1.0
Tundra Bakery & Coffee Shop	2.0
Wolgemuth's Store (Arctic Trading Post)	10.0
Finance, Insurance and Real Estate	<u>60.5</u>
Alaska National Bank	7.5
Arctic Slope Regional Corporation	40.0
Ehredt Enterprises (rentals)	1.0
UIC	12.0
Services	<u>79.0</u>
Alaska Legal Services	4.0
Alaska Tour and Marketing	0.5
Arctic Automotive	3.0
Arctic Coast Janitorial	2.0
Arctic Hotel	6.0
Arctic Inn	3.0
Arctic Slope Alaska General (ASAG camp operation)	16.0
Assembly of God Church	1.0
Barrow Beauty Salon	0.5
Beaufort Sea Enterprises	1.0
Eskimos Inc. (auto repair portion)	2.0
Igloo Enterprises (coffee service portion)	1.0
Inupiat Cleaners	1.0
Inupiat Community of the Arctic Slope (IRA)	18.0
MMCW	4.0
Presbyterian Church	4.0
Sure's Clean	2.0
Top of the World Hotel	8.0

UIC Construction (vehicle equipment maintenance portion)		2.0
Government		<u>667.0</u>
Federal		57.5
(Federal Aviation Administration)	(8.0)	
(National Weather Service)	(4.0)	
(PHS Hospital)	(42.0)	
(Post Office) -	(3.5)	
State		13.0
(Dept. of Health & Social Services)	(2.0)	
(Dept. of Labor, Job Service)	(1.0)	
(Dept. of Transportation - airport)	(2.0)	
(District Attorney's Office)	(1.0)	
(District Court System)	(4.0)	
(Legislative Information Office)	(1.0)	
(Public Defender Agency)	(2.0)	
Local		596.5
(City of Barrow)	(7.0)	
(North Slope Borough, Mayor's Office)	(16.0)	
(North Slope Borough, EPO Office)	(7.0)	
(North Slope Borough, Admin. & Finance)	(59.0)	
(North Slope Borough, Planning)	(17.0)	
(North Slope Borough, Utilities)	(37.5)	
(North Slope Borough, Public Works)	(197.0)	
(North Slope Borough, Housing)	(45.0)	
(North Slope Borough, Public Safety)	(34.0)	
(North Slope Borough, Fire Dept.)	(2.0)	
(North Slope Borough, Search & Rescue)	(5.0)	
(NSB School District, Central Office)	(36.0)	
(NSB School District, Curriculum Center)	(4.0)	
(NSB School District, Maintenance, etc.)	(43.0)	
(NSB School District, Elementary School)	(53.0)	
(NSB School District, High School)	(34.0)	

TOTAL EMPLOYMENT **1,345.5**

Note: Figures exclude local persons working in the Prudhoe Bay area.

Source: Alaska Consultants, Inc.

TABLE 18

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1980

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	404	385	376	407	400	388	215	205	204	387	383	410
Construction	*	*	*	*	*	*	118	206	228	143	107	96
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	201	206	205	217	195	204	242	246	237	242	250	269
Wholesale Trade	*	*	*	0	0	0	0	0	0	0	0	0
Retail Trade	188	186	185	170	182	201	204	209	211	215	227	209
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	92	106	99	123	128	145	119	126	99	107	86	80
Miscellaneous	0	0	0	0	0	0	0	0	0	*	*	*
Government												
Federal	148	148	152	157	155	137	135	138	144	162	163	158
State	51	47	42	45	47	50	45	43	42	36	24	24
Local	931	1,051	1,075	1,076	1,099	1,088	971	1,025	1,166	1,205	1,210	1,178
<u>TOTAL</u>	2,343	2,541	2,602	2,643	2,538	2,476	2,116	2,267	2,391	2,565	2,518	2,496

* Figures withheld to comply with disclosure regulations.

Source: Alaska Department of Labor.

TABLE 19

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	629	574	579	587	582	576	649	715	715	644	662	673
Construction	127	113	102	66	60	74	112	110	125	155	181	180
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	244	252	248	205	209	180	178	176	183	173	180	216
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	218	252	248	233	226	215	260	266	277	267	267	265
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	80	70	93	103	65	56	58	70	64	85	90	87
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	156	159	152	153	152	138	147	150	146	144	146	138
State	20	23	22	17	19	24	20	20	17	18	12	16
Local	1,005	1,092	1,222	984	1,068	1,065	1,177	1,289	1,364	1,195	1,159	1,166
<u>TOTAL</u>	<u>2,546</u>	<u>2,601</u>	<u>2,734</u>	<u>2,419</u>	<u>2,448</u>	<u>2,404</u>	<u>2,670</u>	<u>2,862</u>	<u>2,957</u>	<u>2,749</u>	<u>2,765</u>	<u>2,809</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 20

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	529	559	528	475	440	404	467	445	397	381	378	358
Construction	220	267	278	220	149	182	200	249	228	215	194	225
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	184	188	185	251	255	260	189	202	190	153	150	153
Wholesale Trade	0	0	0	*	*	*	*	*	*	*	*	*
Retail Trade	174	172	173	176	186	182	205	220	224	217	203	216
Finance, Insurance and Real Estate	*	*	*	63	63	66	*	*	*	70	69	66
Services	144	255	270	168	141	129	89	73	91	97	86	96
Miscellaneous	k	*	*	*	*	*	0	0	0	*	*	*
Government												
Federal	132	133	135	136	138	112	77	74	75	77	77	82
State	17	19	22	22	20	20	21	20	21	18	20	24
Local	1,207	1,182	1,170	1,332	1,297	1,173	1,058	1,238	1,444	1,323	1,298	1,330
<u>TOTAL</u>	<u>2,667</u>	<u>2,736</u>	<u>2,723</u>	<u>2,843</u>	<u>2,691</u>	<u>2,530</u>	<u>2,375</u>	<u>2,588</u>	<u>2,734</u>	<u>2,551</u>	<u>2,475</u>	<u>2,551</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 21

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	353	347	337	241	235	273	297	235	193	177	179	178
Construction	257	244	148	128	136	190	160	180	201	181	169	148
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	159	194	200	203	198	153	180	188	172	135	145	147
Wholesale Trade	*	*	*	*	*	*	*	*	*	*	*	*
Retail Trade	218	250	266	210	228	252	244	163	157	130	140	131
Finance, Insurance and Real Estate	69	80	86	*	*	*	*	*	*	*	*	*
Services	108	110	106	109	114	126	113	112	111	94	78	85
Miscellaneous	*	*	*	0	0	0	0	0	0	0	0	0
Government												
Federal	81	79	80	80	80	80	84	84	83	85	83	81
State	21	25	27	29	30	31	29	31	32	33	35	37
Local	1,308	1,327	1,438	1,415	1,488	1,660	1,152	1,288	1,508	1,353	1,368	1,442
<u>TOTAL</u>	2,574	2,656	2,689	2,498	2,581	2,845	2,344	2,367	2,544	2,284	2,291	2,340

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 22

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1984

<u>Industry Classification</u>	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mining	227	219	226	281	252	269	327	296	301	241	227	189
Construction	137	183	182	249	261	243	212	219	221	245	226	232
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	207	225	234	236	204	183	187	197	193	161	157	158
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	111	106	116	116	123	124	116	134	130	120	115	121
Finance, Insurance and Real Estate	82	89	93	88	100	81	104	90	90	87	85	87
Services	51	53	57	70	60	52	47	51	55	72	60	59
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	79	85	83	86	86	85	77	77	76	73	75	75
State	37	33	32	42	37	30	33	38	33	35	34	38
Local	1,269	1,401	1,358	1,561	1,520	1,584	1,202	1,468	1,522	1,292	1,301	1,322
<u>TOTAL</u>	<u>2,200</u>	<u>2,394</u>	<u>2,381</u>	<u>2,729</u>	<u>2,643</u>	<u>2,651</u>	<u>2,305</u>	<u>2,570</u>	<u>2,621</u>	<u>2,326</u>	<u>2,280</u>	<u>2,281</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 23

COVERED INDUSTRY EMPLOYMENT
CITY OF BARROW
1985

<u>Industry Classification</u>	<u>Jan</u>	Feb	Mar	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	Ott	<u>Nov</u>	Dec
Mining	311	354	337	308	275	246	269	259	247	309	342	346
Construction	196	192	209	178	157	130	140	164	138	117	134	133
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	161	187	197	208	179	158	132	138	138	136	142	149
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	115	118	127	129	122	116	109	105	108	127	118	111
Finance, Insurance and Real Estate	86	93	94	*	*	*	*	*	*	*	*	*
Services	59	52	62	51	63	69	50	48	45	43	38	38
Miscellaneous	*	*	*	o	0	0	0	0	0	0	0	0
Government												
Federal	78	82	81	85	87	81	71	72	71	67	65	62
State	40	41	42	39	40	29	34	26	29	33	35	31
Local	1,437	1,401	1,488	1,405	1,397	1,148	1,057	1,261	1,340	1,376	1,338	1,295
<u>TOTAL</u>	2,511	2,547	2,664	2,514	2,429	2,125	1,958	2,169	2,208	2,297	2,301	2,249

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 24

COVERED 1FKXJSTR% EMPLOYMENT
CITY OF BARROW
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	402	399	394	320	326	326	338	315	341	355	249	186
Construction	104	114	131	172	186	170	122	144	157	*	*	*
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	148	171	170	165	169	159	158	171	163	165	163	175
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	91	92	94	74	76	70	71	76	74	91	91	88
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	69	69	67
Services	31	35	32	29	31	32	32	35	30	31	23	24
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	54	58	53	55	54	60	60	63	63	63	63	64
State	30	34	35	34	36	35	33	30	30	27	29	27
Local	1,429	1,439	1,378	1,372	1,296	1,200	1,361	1,624	1,722	1,533	1,527	1,528
<u>TOTAL</u>	<u>2,386</u>	<u>2,435</u>	<u>2,389</u>	<u>2,316</u>	<u>2,260</u>	<u>2,141</u>	<u>2,259</u>	<u>2,536</u>	<u>2,660</u>	<u>2,484</u>	<u>2,351</u>	<u>2,340</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

ANAKTUVUK PASS

A. PAST POPULATION TRENDS

Except for three communities (Nuiqsut, Atqasuk and Point Lay) which were re-established during the 1970s, Anaktuvuk Pass is the newest village on the North Slope, dating back only to 1949. It is also unique among North Slope villages in that it is peopled by **Nunamiut** or inland Eskimos who traditionally led a semi-nomadic existence across a large area extending from the Brooks Range to the Arctic coast.

As reported by Amsden (1977), the pre-contact Nunamiut Eskimo population is thought to have numbered as many as 1,400, divided into no more than twenty bands of between 25, and 100 individuals. Traditionally, these nomadic people hunted caribou and, to a lesser extent, other inland species for their livelihood. Those resources were supplemented by blubber, seal skins and other products obtained in trade during periodic journeys to the coast, with the Colville River delta being an important trading center. However, traditional lifestyles changed dramatically at the close of the nineteenth century, primarily due to the commercial whaling era and to a major decline in the size of the Arctic caribou herd.

The Arctic caribou herd population suffered a major crash after the 1870s and by 1900 numbered only about 15,000 head. What caribou were available were mainly in the east, largely the result of an overflow from the Porcupine herd which was then in a high population cycle. At about the

TABLE 25
 POPULATION TRENDS
 ANAKTUVUK PASS
 1950 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1950	66		
1960	35	-47.0	
1970	99	182.9	
1980	203	105.1	
1981	235		15.8
1982	250		6.4
1983	228		-8.8
1984	233		2.2
1985	238		2.1

Sources: U.S. Census (1950 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

TABLE 26
POPULATION ESTIMATES*
ANAKTUVUK PASS
1935 - 1986

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1935		66	Binford & Chasko, 1976
1936		66	Binford & Chasko, 1976
1937		65	Binford & Chasko, 1976
1938		67	Binford & Chasko, 1976
1939		68	Binford & Chasko, 1976

1940		70	Binford & Chasko, 1976
1941		69	Binford & Chasko, 1976
1942		71	Binford & Chasko, 1976
1943		71	Binford & Chasko, 1976
1944		74	Binford & Chasko, 1976
1945		74	Binford & Chasko, 1976
1946		73	Binford & Chasko, 1976
1947		74	Binford & Chasko, 1976
1948		74	Binford & Chasko, 1976
1949		76	Binford & Chasko, 1976
1949		76	Rausch, 1951 (Binford & Chasko, 1976)

1950	66	79	Binford & Chasko, 1976
1951		82	Binford & Chasko, 1976
1952		84	Binford & Chasko, 1976
1953		87	Binford & Chasko, 1976
1954		88	Binford & Chasko, 1976
1955		91	Binford & Chasko, 1966
1956		96	Binford & Chasko, 1976
1957		85	Pospisil, 1964 (Binford & Chasko, 1976)
1957		99	Binford & Chasko, 1976
1958		104	Binford & Chasko, 1976
1959		107	Binford & Chasko, 1976

1960	35	96	Gubser, 1965 (Binford & Chasko, 1976)
1960		114	Binford & Chasko, 1976
1961		117	Binford & Chasko, 1976
1962		121	Binford & Chasko, 1976
1963		127	Binford & Chasko, 1976
1964		128	Binford & Chasko, 1976
1965		131	Binford & Chasko, 1976
1966		134	Binford & Chasko, 1976
1967		136	Binford & Chasko, 1976

1967		110	Bureau of Indian Affairs - includes 2 whites
1967		117	Federal Field Committee - includes 2 whites
1968		136	Binford & Chasko, 1976
1968		125	Alaska Area Native Health Service
1969		130	Amsden, 1977
1969		128	Cline, 1972 - includes 5 whites
1969		115	Federal Field Committee - includes 5 whites

1970	90	120	Tener (Dupere & Associates)
1972		140	Hanson, 1972
1973		129	North Slope Borough (Ott)
1974		134	North Slope Borough (Jan)
1975		129	North Slope Borough (July)
1975		160	U.S. Census Bureau
1976		150	North Slope Borough (July)
1976		167	U. S. Census Bureau
1977		151	North Slope Borough (July)
1978		173	North Slope Borough (July)
1979		185	North Slope Borough (July)

1980	203	235	North Slope Housing Survey - includes 53 whites***
1981	235**		
1982	250**	201	U.S. Census Bureau, 1984
1982		215	North Slope Borough (July)
1983	228**	228	North Slope Borough (July)
1984	233**	232	North Slope Borough (July)
1985	238**	234	Dept. Community/Regional Aff.
1986		234	Dept. Community/Regional Aff.

* Population figures developed by Binford & Chasko are a reconstruction of the total population of the Nunamiut people who ultimately settled at Anaktuvuk Pass.

** Alaska Department of Labor estimates derived using U.S. Census methodology. Where these figures are the same as Borough estimates, the Department accepted local censuses undertaken by the North Slope Borough.

*** Of the 53 non-Natives counted in the 1980 housing survey, 24 were workers who were not permanent village residents.

Sources: U.S. Census (1950 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

same time, the commercial whaling industry entered the Alaska arctic, becoming important at Barrow in the mid-1880s and extending eastward as far as Herschel Island by 1890. The whalers introduced large quantities of trade goods, including food, tools, liquor, guns and ammunition. To acquire these items, Eskimos were hired to obtain meat, mainly caribou, for the whaling crews, placing additional demands on an already scarce resource. Most **Nunamiuts** were drawn to the coast as their dependence on American goods was established. The whalers also introduced a variety of new diseases, resulting in major epidemics of measles and influenza.

By the beginning of the twentieth century, the number of **Nunamiuts** spending at least part of the year in the interior had declined dramatically to about 200 and, by 1910, there were no more than 50 people spending much time inland (Amsden 1977). This decline was due in part to disease and some starvation but emigration probably was the primary factor as whole regions such as the Upper Noatak and Upper Colville were totally abandoned because of the scarcity of caribou. Most of the population movement was to the coast to the east, including Herschel Island and the Mackenzie delta in Canada. The people who remained in the interior were forced to exploit other resources such as Dall sheep and fish to fill the gap left by caribou. During this period, they were necessarily highly mobile and suffered great hardship.

The Arctic caribou herd remained small but began to increase steadily in size around 1910 and was again relatively abundant by 1920. The whaling industry had died out around 1908 but a substantial market had developed

for furs, especially arctic fox and red fox, and trapping for these species was encouraged by a network of white traders in Barrow and other points along the coast. Yet, despite improved prospects for subsistence, the depopulation of inland areas continued. By 1920, the abandonment of traditional **Nunamiut** territory was almost complete, although a couple of families continued to camp in the upper **Dietrich** Pass, just north of **Wiseman**. The annual summer trade rendezvous in the **Colville** River delta continued until **1917** but involved increasingly fewer numbers of families.

The interior of the North Slope remained virtually abandoned until the mid-1930s. Most **Nunamiut** had left their former territory well before **1920**. Many settled at Barrow and **Wainwright**, attracted there by amenities such as trading posts, schools and missions. Others who had moved east during the critical caribou shortage remained in Canada, primarily in the MacKenzie delta. There were also a number of families who remained on the coast between the **Colville** River delta and Herschel Island. The move to the coast was permanent for most **Nunamiut** as only a very few families returned inland in 1934 to found the population which ultimately settled in Anaktuvuk Pass.

With the onset of the Depression, the fur market crashed. In **1934**, with little incentive to remain on the coast, three extended **Nunamiut** families decided to return to their former homeland, traveling up the **Colville** River to the mouth of the Anaktuvuk where they established a base camp. In 1938, the original families were joined by two others. From this group, three bands were formed, with one band settling in the **Killik** Valley, another in

the Chandler Lake area and a third in the Ulu Valley. (This last group broke up during the 1940s with some of its members being absorbed by the other bands).

At first, the people returned to the coast in the summer for subsistence hunting and trade, but they soon developed a more inland orientation. For a time, trade was directed toward inland settlements such as Bettles but, by the mid 1940s, the airplane had become the primary instrument of trade. Service by airplane had the advantage of not requiring people to leave the region for long trading trips although it did encourage the location of camps near suitable landing sites.

The shift to a settlement pattern involving year-round occupation of the interior resulted in the development of an isolated cohesive Nunamiut population for the first time this century. By 1940, marriages were restricted primarily to within the group, resulting in an increasing degree of relationship among families. Also during this period, families increasingly camped with close relatives.

Although the Nunamiut remained largely isolated from the outside world during World War II, the Navy's exploration program in the then Naval Petroleum Reserve No. 4 between 1944 and 1953 resulted in increased contact. In 1947, a few families camping at Chandler Lake were visited by the director of the Arctic Research Laboratory and the owner of the commercial airline which had been flying in supplies. It was suggested that, because the Anaktuvuk Valley had good potential for landing

facilities, it might be possible to establish regular air service if the people would move there. Since this valley was known to be a good caribou migration route, several families moved to **Tulugak** Lake the following spring. They were joined during the summer by Arctic Research Laboratory scientists and a teacher from Barrow who set up class in a tent. The prospect of obtaining a teacher the next summer (**1949**) attracted the remaining Nunamiut families who had been occupying the upper **Killik** River region to **Tulugak** Lake. Thus, the **Nunamiut** bands became united in the Anaktuvuk Valley.

In 1951 a permanent U.S. post office was established at Anaktuvuk Pass and regular weekly air service from Fairbanks was initiated. The latter meant not only that goods could be flown in but also that local residents could fly out, an important consideration for emergency health care. Teachers continued to visit each summer and classes were **held** for the younger children at **Tulugak** Lake and, **later**, at Anaktuvuk Pass, while some of the older children were flown out to boarding schools.

The 1950s marked a period of transition for **Anaktuvuk** Pass from a nomadic to a permanent settlement. After 1951, most families stayed in the village during the summer. Although a few families also stayed in the village during the winter, most moved to camps to trap for red fox, wolf and other species. Caribou continued to be the basis of subsistence. The reliance on a steady source of commercial goods and other conveniences had greatly decreased the mobility of the local population and was sufficient to cause

the establishment of a permanent base but it was not until 1960 that the last families were permanently drawn to the village.

In the summer of 1960, a permanent school was built in Anaktuvuk Pass and regular classes for grades one through eight began that fall. This attracted the last family to move to the village permanently. Since then, the need for all families with school age children to remain in the village for nine months of the year and the relative difficulty of summer travel have made the **Nunamiut** essentially year-round residents of Anaktuvuk Pass.

The first Census records for Anaktuvuk Pass are for 1950 when 66 persons were counted. Despite the increasing permanence of the village between 1950 and 1960, Census records indicate a 47 percent decrease in population by 1960, illustrating the difficulties of counting people who were still relatively mobile. Given the fact that many Anaktuvuk Pass area residents were apparently not counted in 1960, the major increase in population (182.9 percent) recorded by the Census between 1960 and 1970 is also misleading and masks the changes which really took place during this period. Furthermore, the 1970 Census also appears to have not counted all Anaktuvuk Pass residents as detailed studies of the community undertaken by Amsden in 1969 and by Hanson in 1972 counted 130 and 140 persons respectively. Mary Tener, Christian Education Worker for the Arctic Parish United Presbyterian Church, who lived in Anaktuvuk Pass during 1970 also disputed the Census count. According to Miss Tener (**Dupere** and Associates, October 1973), the Census omitted high school students attending school

outside the village. She estimated the community's total population at the time to be about 120.

A more complete view of population change at Anaktuvuk Pass during its formative years through to the late 1960s is provided by Binford and Chasko (1976) who reconstructed the **total** population of Nunamiut people who later settled at Anaktuvuk Pass for each year between **1935** and 1968. (Thus, their figures do not directly equate to **total** village population until the 1960s). They noted that from 1935 **until 1949** the population was relatively stable with a low crude birth rate and a crude death rate close to world averages. However, between 1949 and 1954, the crude birth rate doubled while the death rate remained relatively unchanged. This marked increase in fertility coincided with the shift in Nunamiut lifestyle to a more sedentary society. Between 1955 and 1960 there was a slight drop in the crude death rate (probably related to greater access to medical care), while birth rates remained relatively unchanged. Between 1960 and 1964, the crude death rate continued to drop with an accompanying minor drop in the birth rate. However, after 1964, the birth rate fell off dramatically, largely as a result of the successful introduction of contraceptives.

The *1970s* marked another period of major change at Anaktuvuk Pass and other North Slope communities resulting from passage of the Alaska Native Claims Settlement Act in 1971 and formation of the North Slope Borough in 1972. In particular, Borough spending in the villages greatly increased the opportunities for local residents to earn cash income through both

permanent positions and temporary construction jobs. In turn, this encouraged young people who might otherwise have left the community to remain. Also during the 1970 to 1980 decade, village education facilities were expanded to include a high school program, a development which kept teenagers in the community, whereas previously many had traveled to Mt. Edgecumbe (in Southeast Alaska) or Chemawa (in Oregon) to complete their schooling. According to the U.S. Census, the population of Anaktuvuk Pass grew by 105.1 percent between 1970 and 1980 to 203 persons by the latter year. (Even though 1970 Census figures appear to be incomplete, the community still realized a healthy 56.2 percent gain in population from the 130 persons counted here by Amsden in 1969).

As elsewhere on the North Slope, Borough capital improvements program spending greatly increased during the early 1980s and this was accompanied by further rapid population growth. Using Alaska Department of Labor estimates, Anaktuvuk Pass grew by 17.2 percent between 1980 and 1985, with all of the growth taking place between 1980 and 1982. Although changes in Department of Labor methodology after 1982 may have been a factor, it is clear that with the decline in Borough capital improvement program spending since 1984 (and earlier in Anaktuvuk Pass since the village did not have gravel availability problems and this resulted in the earlier completion of most projects), this period of rapid population growth has clearly ended.

B. POPULATION COMPOSITION

Like other North Slope villages, the outstanding feature of Anaktuvuk Pass' population is the high proportion of Eskimo residents. In the early years of the **community's** existence, the only non-Natives living here were teachers and an occasional trader. This is **still** essentially true although the number of non-Natives rose from one or two people (a teacher and a trader) in the **1950s** to **12** recorded by the **1980** Census. (The Census appears to have understated the number of non-Natives in the community as the **1980** North Slope Borough housing survey counted **29** non-Native residents plus another 24 non-Native temporary residents a few months later). In 1970, 97 percent of the village's population (all but 2 persons) was Eskimo. As in other North Slope communities, the proportion of Natives declined slightly between 1970 and 1980 (to 94 percent according to the Census or 89 **percent** according to the 1980 housing survey, excluding 24 non-Native and 2 Native temporary residents), due mainly to the addition of village high schools and Borough police officers.

Several comprehensive population studies have been conducted in Anaktuvuk Pass, including detailed counts by Amsden (for 1969), Hanson (for 1972) and Alaska Consultants, Inc. (the 1980 North Slope Borough housing survey) as well as U.S. Census counts. In addition, Binford and **Chasko** (1976) undertook detailed analyses of the community's population during the 1935 to 1968 period. Using these data, the age and sex characteristics of Anaktuvuk Pass' population were reviewed to determine what changes had occurred.

The population characteristics of Anaktuvuk Pass' Native and non-Native residents are dissimilar but those of the community's non-Native population are typical of other North Slope Borough villages, excluding Barrow. The 1980 Census found the median age of the non-Native population in Anaktuvuk Pass to be 30.6 (with the 1980 housing survey recording a similar median figure for non-Natives of 29.5). The typical white family here is a married teacher couple with one to three young children (**i.e. pre-high school**) and who remain in the village for less than 5 years. Borough public safety officers stationed in the community fit the same general profile. However, at the time of the 1980 housing survey, there were also four non-Natives (2 males and 2 females) in the village who were married to local residents. The 1980 housing survey counted an additional 24 non-Natives living temporarily in the community in camp-type accommodations for construction activities or scientific research (including 8 U.S. Geological Survey personnel and a researcher from Arizona State University).

In North Slope Borough villages, non-Native males typically outnumber females. This was not the case in Anaktuvuk Pass in 1980 as the Census counted more females (7) than males (5). Excluding temporary village residents, the 1980 housing survey counted slightly more non-Native males than females but this was due mainly to the sex breakdown of young children as there was then only one unmarried male teacher in the community.

Unlike the non-Native population, Anaktuvuk Pass' Eskimo population is young. In 1969, **Amsden** found the median age of Native males here to be

17.5 and that of females to be 16.9. At that time, over one-third of the village's Eskimo population was aged between 5 and 14. However, the number of people in the under 5 age range (14) was only slightly more than half that aged between 5 and 9 (26), presumably related to the massive introduction of contraceptive devices in the village in 1964 (**Binford and Chasko**). The 1970 Census also noted a heavy concentration of the village's Eskimo population in the 5 to 14 age ranges. It recorded a higher median age for males (21.7) and a lower one (**14.1**) for females but **Amsden's** records are more complete and are therefore probably more reliable.

By 1972, Hanson found that the median age of Native males and females in Anaktuvuk Pass had risen to 21.6 and 18.9 respectively, primarily due to a further decline in the number of children under the age of 5 who by then accounted for only **5.7** percent of the village's population. The median ages recorded in 1980 by the Census and the housing survey for Native males (24.2 and 22.2 respectively) were **slightly** higher than those in **1972** and basically the same for Native females (21.0 and 20.4 according to the Census and the housing survey respectively). However, a look at the age breakdown of the population in 1980 reveals that the "bumper" baby crop, **i.e.** those born shortly before 1964, were then in their late teens and entering their child producing years. Not surprisingly, both the 1980 **Census and the 1980 housing survey** recorded a **major increase in** the proportion of the population under the age of 5 (from 5.7 percent of the village's total population in 1972 to 15.2 and 15.5 percent respectively).

Overall, the 1980 housing survey found **that** the median age of **Anaktuvuk Pass'** population was about the same as that for all North Slope villages (23.3 years versus 23.7 years). The median age of local Alaska Native males (22.2) and that of Alaska Native females (**18.3**) was slightly younger than the Alaska Native average Boroughwide (22.6 for males and 19.8 for females), due mainly to the high proportion of children under the age of 5 and probably to the out-migration of some young female adults. However, even when non-Natives are included, the median ages of Anaktuvuk Pass and other Borough villages **were** low when compared with those of the State (26.1 for males and 26.3 for females) and the nation as a whole (29.8 for males and 31.3 for females) in 1980.

The 1980 housing survey also found that males in Anaktuvuk Pass outnumbered females by a 54.2 to a 45.8 percent margin. (The 1980 Census actually counted one more female than male in the village). However, the disparity between the sexes in Anaktuvuk Pass was less noticeable among Alaska Natives where males accounted for 51.6 percent of the population. (This had not been the case here in 1970 when Alaska Native males outnumbered females by 56.7 to 43.3 percent). The housing survey also found that the ratio of Alaska Native males to females in Anaktuvuk Pass was slightly more even than that of Alaska Natives Boroughwide (52.5 to 47.5 percent) and that of the State (53 percent males to 47 percent females according to the Census) for that year. Nevertheless, all of these areas are unlike the nation as a whole where females outnumber males.

Binford and Chasko (1976), based on their detailed study of population growth among Anaktuvuk Pass people, concluded that the greater number of males than females in the village was due to two factors. These factors appear to also apply in other North Slope communities. The first was that children adopted out of the village were almost exclusively female. The second, and today probably more important, was that young Eskimo females were more mobile and therefore more likely to migrate out of the village than their male counterparts.

Household densities are another indicator of population change. However, although family sizes have doubtless declined, comparisons of household size over time in Anaktuvuk Pass are misleading. In 1969, Amsden counted 130 Natives in 25 households for an average of 5.2 persons per household. Hanson found the same average persons per household in 1972. This situation changed shortly thereafter, primarily because housing constructed by the Alaska State Housing Authority and, later, by the North Slope Borough has permitted the dispersal of families in a manner more akin to Western norms. Excluding temporary village residents, the 1980 housing survey found the average household size in Anaktuvuk Pass had dropped to 3.9. This was not high by Borough standards but was above the 2.93 and 2.75 persons per household recorded by the 1980 Census for the State and the nation as a whole. At the time of the 1980 housing survey, 17 of the village's 57 occupied units had been built by either the Alaska State Housing Authority or the North Slope Borough and another 30 Borough units were scheduled to be built, indicating that further declines in household size were likely to occur.

TABLE 27

POPULATION COMPOSITION*
 ANAKIUVUK PASS
 1969

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
under 5 years	9	5	14						
5 - 9	14	12	26						
10 - 14	10	11	21						
15 - 19	7	4	11						
20 - 24	5	5	10						
25 - 29	4	3	7						
30 - 34	5	3	8						
35 - 39	3	4	7						
40 - 44	5	3	8						
45 - 49	2	3	5						
50 - 54	1	1	2						
55 - 59	2	3	5						
60 - 64	0	0	0						
65 - 69	1	0	1						
70 - 74	1	1	2						
75 and over	3	0	3						
<u>TOTAL</u>	<u>72</u>	<u>58</u>	<u>130</u>						
<u>Median Age</u>	<u>17.5</u>	<u>16.9</u>	<u>17.0</u>						

* Figures include one non-Native married to a local resident.

source: Amsden, Charles Wynn. May 1977.

TABLE 28

POPULATION COMPOSITION
ANAKTUVUK PASS
1970

Range	Alaska Native		Non-Native		Total	
	Male	Female	Male	Female	Male	Female
Under 5 years	7	6	0	0	7	6
5 - 9	15)	17)	0)	0)	7	10
10 - 14	)	)	)	)	8	7
15 - 19	(9	(3	(0	(0	4	1
20 - 24	(	(	(0	(0	5	2
25 - 29	8)	4)	)	)	3	2
30 - 34	)	)	)	)	5	2
35 - 39	(5	(5	(0	(0	2	2
40 - 44	(	(	(	(	3	3
45 - 49	3)	4)	(	1)	3	3
50 - 54	)	)	3	)	1	2
55 - 59	(3	(2	(0	0	3	2
60 - 64	(	(	(	(	0	0
65 - 69	)	)	)	)	1	0
70 - 74	5)	1)	0)	0)	2	1
75 and over	)	)	)	)	2	0
<u>TOTAL</u>	<u>55</u>	<u>42</u>	<u>1</u>	<u>1</u>	<u>56</u>	<u>43</u>
<u>Median Age</u>	<u>21.7</u>	<u>14.1</u>	<u>50.0</u>	<u>50.0</u>	<u>22.5</u>	<u>14.3</u>
						<u>19.9</u>

Source: U.S. Census.

TABLE 29

POPULATION COMPOSITION*
 ANAKTUVUK PASS
AUGUST 1972

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	3	5	8						
5 - 9	13	11	24						
10 - 14	11	12	23						
15 - 19	8	7	15						
20 - 24	8	5	13						
25 - 29	6	3	9						
30 - 34	5	5	10						
35 - 39	4	4	8						
40 - 44	7	3	10						
45 - 49	0	3	3						
50 - 54	2	5	7						
55 - 59	2	1	3						
60 - 64	0	1	1						
65 - 69	0	0	0						
70 - 74	2	1	3						
75 and over	3	0	3						
<u>TOTAL</u>	<u>74</u>	<u>66</u>	<u>140</u>						
<u>Median Age</u>	<u>21.6</u>	<u>18.9</u>	<u>20.2</u>						

* Figures include two non-Natives married to local residents.

source : Hanson, Wayne C. September 1972. Anaktuvuk Pass, Alaska Village Census.

TABLE 30

POPULATION COMPOSITION
ANAKTUVUK PASS
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	14	15	29	1	3	4	15	18	33
5 - 9	5	12	17	2	0	2	7	12	19
10 - 14	9	8	17	0	0	0	9	8	17
15 - 19	12	17	29	0	0	0	12	17	29
20 - 24	10	11	21	0	0	0	10	11	21
25 - 29	12	4	16	0	0	0	12	4	16
30 - 34	5	8	13	2	2	4	7	10	17
35 - 39	10	4	14	0	1	1	10	5	15
40 - 44	5	4	9	0	1	1	5	5	10
45 - 49	3	3	6	0	0	0	3	3	6
50 - 54	4	3	7	0	0	0	4	3	7
55 - 59	2	3	5	0	0	0	2	3	5
60 - 64	1	3	4	0	0	0	1	3	4
65 - 69	2	0	2	0	0	0	2	0	2
70 - 74	1	0	1	0	0	0	1	0	1
75 and over	1	0	1	0	0	0	1	0	1
<u>TOTAL</u>	96	95	191	5	7	12	101	102	203
<u>Median Age</u>	<u>24.2</u>	<u>18.8</u>	<u>21.0</u>	<u>9.9</u>	<u>3.2</u>	<u>30.5</u>	<u>24.0</u>	<u>19.0</u>	<u>21.0</u>

source: *Us. census.*

TABLE 31

FCEVLATION COMPOSITION*
 ANAKIUVUK PASS
 JULY 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	13	15	28	4	2	6	17	17	34
5 - 9	8	9	17	3	2	5	11	11	22
10 - 14	6	11	17	0	0	0	6	11	17
15 - 19	12	14	26	0	1	1	12	15	27
20 - 24	12	9	21	3	0	3	15	9	24
25 - 29	10	6	16	11	3	14	21	9	30
30 - 34	5	5	10	4	3	7	9	8	17
35 - 39	5	2	7	2	1	3	7	3	10
40 - 44	6	4	10	5	3	8	11	7	18
45 - 49	4	5	9	3	1	4	7	6	13
50 - 54	4	3	7	2	0	2	6	3	9
55 - 59	2	2	4	0	0	0	2	2	4
60 - 64	0	1	1	0	0	0	0	1	1
65 - 69	3	2	5	0	0	0	3	2	5
70 - 74	1	0	1	0	0	0	1	0	1
75 and over	2	0	2	0	0	0	2	0	2
<u>TOTAL</u>	<u>93</u>	<u>88</u>	<u>181</u>	<u>37</u>	<u>16</u>	<u>53</u>	<u>130</u>	<u>104</u>	<u>234</u>
<u>Median Age</u>	<u>22.2</u>	<u>18.3</u>	<u>20.4</u>	<u>29.4</u>	<u>30.0</u>	<u>29.5</u>	<u>26.0</u>	<u>18.8</u>	<u>23.3</u>

* Figures exclude one person (an Alaska Native male) for whom no age information was provided. Included are 24 non-Native workers who were not permanent residents of the village.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 32

PERMANENT FUND DIVIDEND RECIPIENTS
ANAKTUVUK PASS
1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		33	27	26
5 - 9			30	38
10 - 14			21	22
15 - 19			20	19
20 - 24			19	20
25 - 29			19	22
30 - 34			8	15
35 - 39			16	11
40 - 44			15	16
45 - 49			13	13
50 - 54			9	9
55 - 59			7	5
60 - 64			5	4
65 - 69			1	2
70 - 74			1	0
75 & over			1	2
Un kn own	0	2	0	1
TOTAL	205	205	212	225

Note: 1982 age breakdown: 0-17 - 82; 18-27 - 43; 28-37 - 28; 38-47 - 28; 48-57 - 14; 58-67 - 9; 68-77 - 0; 78+ - 1; Unknown - 0; Total - 205.
1983 age breakdown: 0-4 - 33; 5-17 - 49; 18-27 - 37; 28-37 - 27; 38-47 - 30; 48-57 - 16; 58-67 - 7; 68-77 - 2; 78+ - 2; Unknown - 2; Total - 205.

Source: Alaska Department of Revenue.

Future childbearing and residency decisions by Anaktuvuk Pass' large group of young Native adults are expected to be critical factors in determining future rates of community growth. In the early 1980s, improved employment opportunities in the village, mainly derived from the North Slope Borough capital improvements program, appear to have encouraged a high proportion of these people to remain here. **With** Borough capital improvements program spending now at a low level, few construction jobs are currently available locally. Alaska Permanent Fund dividend data for 1984 and 1985 suggest that some out-migration of young adults with children may have already taken place.

The continuing influence of strong family and other ties among Anaktuvuk Pass residents is particularly marked and is reflected in the stability of the community's Eskimo population. According to the 1980 housing survey, about 75 percent of the Alaska Native heads of household had lived in the village since before 1960. By contrast, none of the non-Native heads of household interviewed had lived here more than five years.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Even by North Slope standards, wage and salary employment is a recent phenomenon in Anaktuvuk Pass. Between the **mid-1930s** when the move back inland got underway and **1949** when the **Nunamiut** bands first united in the Anaktuvuk Pass area, the population was nomadic and subsistence activities were necessarily the primary occupation. Cash income requirements were modest and were mainly met by trapping.

Soon after the first families moved to the Anaktuvuk Pass area, a resident store was established by a white trader in 1950, followed by a post office in 1951. The increasing dependence on trade by airplane was the primary factor in the desire of area residents to have a post office at Anaktuvuk Pass. In the summer of 1952, the mail franchise was established on a regular basis, with one mail delivery per month, increasing to two deliveries in the fall. In turn, although its location was not the most suitable for subsistence activities, the post office provided a fixed point around which movements of the Nunamiut became oriented.

In order to satisfy increasing demands for commercial items, it became necessary for area residents to obtain increasing amounts of cash income since barter was no longer practiced to any significant extent. However, most families were still seasonally mobile which severely inhibited any limited opportunities for employment that may have existed. The making of Anaktuvuk Pass skin masks first began in 1953, although it was not until after 1960 that they were sold on a large scale, and other craft items were also produced and sold. For most families, trapping and wolf bounties remained the major source of cash income.

In 1960, two events greatly reduced the mobility of the population of the Anaktuvuk Pass area. These were the construction of a permanent airstrip and a permanent school. Not only did these developments encourage year-round settlement, but they also provided a source of temporary employment

and cash income. Large crews were used in 1960 to build the landing strip and to improve it in 1967. In addition, the State employed several men for a few weeks each summer to help repair and maintain the school complex. Another locally important source of employment and income developed in the **mid-1960s** when villagers were first hired on Bureau of Land Management firefighting crews. Finally, Amsden noted that in 1969 a few families were aided by federal welfare programs.

Improvements in subsistence technology further contributed to decreased mobility of local residents in the 1960s. During the early years of the decade, men traveled from the village for periods of a few days to a few weeks for hunting and trapping. However, the amount of time spent away from the village lessened following the introduction of snowmobiles in 1965 as these vehicles enabled the coverage of greater distances in a single day and nearly every family in the village owned at least one by the late 1960s.

The white trader left in 1961 but was replaced by a local person who opened a store in his home. Several similar stores appeared later and in 1967 a village cooperative store was established by several families. Nevertheless, a community fact survey conducted for the Bureau of Indian Affairs in the **mid-1960s** noted that trapping remained the main source of cash income in **Anaktuvuk** Pass. The only other jobs identified in the village at that time, aside from those associated with the school, were with the post office, while three stores and a coffee shop presumably provided some income for their owners.

During the 1970s, several events impacted on wage and salary employment in Anaktuvuk Pass. After passage of the Alaska Native Claims Settlement Act in 1971, the **Nunamiut** Corporation became a significant force in the local economy, both in terms of direct employment in its office and employment in other activities in which the corporation is involved. Incorporation of the North Slope Borough in July 1972 has had even more significant impacts on the local economy as it resulted in the provision of a wide range of new and expanded government services in the community and the construction of new public facilities. Together, these activities caused a dramatic increase in the number of village jobs. Construction of the Trans Alaska Pipeline project between 1974 and 1977 also had a modest impact on the village. According to **Alyeska** Pipeline Service Company records (Alaska Review of Social and Economic Conditions, February **1978**), 8 Alaska Native residents of Anaktuvuk Pass worked at least temporarily on this project.

In 1973, shortly after the North Slope Borough's incorporation, Dupere and Associates described Anaktuvuk Pass as being one of the poorest villages in Alaska with jobs in the community consisting only of two teaching positions, a school cook and janitor, a postmaster and work associated with the few small village stores. Dupere and Associates also noted that some additional income was derived from seasonal employment fighting fires for the Bureau of Land Management, from the sale of caribou masks, from trapping and from public assistance programs.

Later in the 1970s, North Slope Borough capital improvements program construction activity began to have a significant impact on village employment. Spearman (n.d.) noted that school construction activities, which began in the **mid-1970s**, had contributed healthy, albeit temporary, amounts of income to village residents. In addition, he noted that the expanded education facilities and new Borough services provided villagers with new opportunities for permanent employment as teacher aides, health aides, cooks, secretaries, mechanics and other occupations. Village corporation activities also provided some additional jobs in managerial, store and fuel delivery operations.

Employment information for Anaktuvuk Pass was collected in 1980 by Alaska Consultants, Inc. as part of the 1980 North Slope Borough housing survey. By this time, it was apparent that a major change in employment opportunities within the village had occurred. Although the results of this survey are not directly comparable with a 1982 employment count (the data were collected from individuals rather than employers and no attempt was made to ascertain if jobs were full-time or permanent), they nevertheless provide further insight into the composition of employment in the community because the results were recorded by race.

The 1980 housing survey identified a total of 102 job holders. However, this number should be reduced at least to 78 because 24 of the jobs counted were held by non-Native construction and government workers based temporarily in the village. All non-Native adults counted, except for two females, were employed. The major employers of non-Natives at the time

were two construction companies (with a combined total of 15 non-Natives and 2 Natives living in camp-type accommodations), the U.S. Geological Survey which had a temporary 8-person (6 males and 2 females) camp and the North Slope Borough School District with 8 non-Native employees. By contrast, of the village's **115 Alaska** Natives aged 16 or over, only 55 percent claimed to be employed. Of the 63 jobs held by Natives, 34 or 54 percent were in Borough construction activities and another 22 or 35 percent were in other Borough positions. The remaining jobs held by Alaska Natives were divided among the contract construction (2 of these were transient Alaska Natives) and trade sectors, plus one person employed by the post office.

In addition to the 1980 housing survey, 1980 Census labor force and employment information for Anaktuvuk Pass (including some comparisons with 1970) were examined. Like the housing survey, Census data are collected from individuals rather than employers. If all persons temporarily in the village (construction and government research personnel) at the time of the housing survey are excluded and if it is assumed that no local people were then employed in construction activities, total employment counts by the 1980 Census and the housing survey are comparable. However, Census figures relating to labor force participation and unemployment rates do not accurately reflect village conditions. Similarly, the Census' assignment of employment by industry is not accurate (e.g. there are no persons in the village who are employed in manufacturing and employment in the trade sector is greatly overstated).

A 1982 survey of employment by Alaska Consultants, Inc. for the North Slope Borough counted a total of 76.5 jobs on an annual average full-time basis (including one local resident who worked at Prudhoe Bay), similar to the number counted by the 1980 housing survey but representing a major change since the 1973 survey by Dupere and Associates. Almost three-quarters (73.8 percent) of the jobs counted were in government occupations, with one person in the post office being the only non-Borough government employee. Of the 56 Borough jobs counted, 31 were in permanent Borough positions and 25 were in temporary Borough construction activities. The North Slope Borough School District was the major Borough employer, with 18 of the 31 permanent Borough positions in the village.

After government, most jobs counted in Anaktuvuk Pass in 1982 were in contract construction (7.5 jobs) and construction camp operations (5 jobs) associated with Borough capital improvement program projects. If these are counted with other Borough jobs, all but 8.5 jobs in the village were derived directly from the North Slope Borough. Of the remainder, 6.5 jobs were provided by the Nunamiut Corporation, either directly or through its store or fuel delivery operations, while the post office provided one job and one village resident worked at Prudhoe Bay.

The North Slope Borough has recently published some employment statistics for its member communities in its Economic Profile series, including the following information for Anaktuvuk Pass:

	<u>North Slope Borough School District</u>	<u>North Slope Borough General Government</u>	<u>Village Corporation</u>	<u>City Government</u>
Oct. 1985	31	31	7	3
June 1986	28	35	3	1
Dec. 1987	39	42	3	1

It is not possible to compare these figures with those counted in the community by Alaska Consultants, Inc. in 1982 since Borough statistics do not purport to equate to average annual year-round employment. However, if the Borough series is maintained in a consistent manner in the future, it **could** provide a useful barometer of employment change at the community level .

Alaska Department of Labor monthly employment statistics for the Anaktuvuk Pass area since 1980 provide almost no insight into developments in the local economy during this period, in part because of disclosure regulations and in part because of errors or inadequacies in Department of Labor data. Employment data associated with oil drilling programs on Arctic Slope Regional Corporation lands near Anaktuvuk Pass in the early 1980s, as well as contract construction activities in the village are affected by disclosure regulations. In addition, all North Slope Borough general government and North Slope Borough School District employment has been counted in Barrow, the Borough headquarters. Furthermore, employment associated with the local village corporation, the **Nunamiut** Corporation, has apparently been incorrectly assigned to Nabesna (northeast of **Glennallen**). As a result, the only employment figures listed during the entire six-year period are those for the City of Anaktuvuk Pass.

Even if Alaska Department of Labor statistics for Anaktuvuk Pass been more accurate, disclosure regulations would have limited their usefulness for all sectors except for government. Given the decrease in Borough construction activities during the past few years, a field count of employment in Anaktuvuk Pass appears to be the only way in which an accurate picture of current conditions could be obtained.

TABLE 33
 SELECTED LABOR FORCE DATA
 ANAKTUVUK PASS
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	*	*	0	0	0
Civilian Employed	*	*	28	17	45
Civilian Unemployed	*	*	0	0	0
Not in Labor Force	*	*	38	58	96
Labor Force Participation Rate	*	*	42.0%	22.0%	31.0%
Unemployment Rate: 1980	*	*	0.0%	0.0%	0.0%
1970	*	*	50.0%	0.0%	33.3%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	0	0
Manufacturing	0	6
Transportation	0	3
Communications	0	0
Trade	0	11
Finance, Insurance & Real Estate	0	3
Services	0	13
Public Administration	0	9
Other	10	0
<u>TOTAL</u>	<u>10</u>	<u>45</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 34

CKXWR3SITION OF EMPLOYMENT BY RACE AND SEX*
 ANAKTUVUK PASS
 JULY 1980

<u>Employment Sector</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mining	0	0	0	0	0	0	0	0	0
Contract Construction	3	0	3	13	2	15	16	2	18
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0
Trade	2	1	3	0	1	1	2	2	4
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0
Government									
Federal	0	1	1	8	0	8	8	1	9
State	0	0	0	0	1	1	0	1	1
Local	38	18	56	9	5	14	47	23	70
Construction	(25)	(9)	(34)	(2)	(0)	(2)	(27)	(9)	(36)
Non-Construction	(13)	(9)	(22)	(7)	(5)	(12)	(20)	(14)	(34)
<u>TOTAL</u>	43	20	63	30	9	39	73	29	102

* Employment figures exclude 9 Alaska Natives (5 males and 4 females) who listed various forms of assistance, primarily Social Security, as their major source of income. Employment figures also exclude 43 Alaska Natives (15 males and 23 females) and 3 non-Natives (all females) aged 16 and over for whom no employment information was provided or who claimed to be unemployed.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

source : Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 35
 MAJOR EMPLOYERS BY SECTOR*
 ANAKTUVUK PASS
 JULY 1980

<u>Employment Sector and Employers</u>	<u>Number of Employees</u>
Mining	0
Contract Construction	18
Alaska International Construction (AIC)	(14)
Transportation, Communication and Public Utilities	0
Trade	4
Finance, Insurance and Real Estate	0
Services	0
Government	
Federal Government	9
U. S. Geological Survey	(8)
State Government	1
Local Government	70
North Slope Borough general government	(21)
North Slope Borough construction	(36)
North Slope Borough School District	(12)
<u>TOTAL</u>	<u>102</u>

* Major employers defined as having at least 5 employees.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

Source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 36
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
 ANAKTUVUK PASS
 1982

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	1.0	1.3
Contract Construction	7.5	9.8
Manufacturing	0.0	0.0
Transportation, Communication and Public Utilities	0.0	0.0
Trade	4.5	5.9
Finance, Insurance and Real Estate	1.5	2.0
Service	5.5	7.2
Government	56.5	73.8
Federal	(1.0)	(1.3)
State	(0.0)	(0.0)
Local	(55.5)	(72.5)
<u>TOTAL</u>	<u>76.5</u>	<u>100.0</u>

Note: Figures include one job held by a local resident at Prudhoe Bay.

Source: Alaska Consultants, Inc. June 1983. Background for Planning,
 City of Anaktuvuk Pass. Prepared for the North Slope Borough.
 Anchorage.

TABLE 37

AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
ANAKTUVUK PASS
1982

Agriculture, Forestry and Fishing		<u>0.0</u>
Mining		<u>0.0</u>
Contract Construction		<u>7.5</u>
Nunamiut Corporation		3.0
Blackstock		1.0
Olympic Constructors and subcontractors		3.0
Miscellaneous other contractors		0.5
Manufacturing		<u>0.0</u>
Transportation, Communication and Public Utilities		<u>0.0</u>
Nunamiut Corporation - T.V.		0.0
Trade		<u>4.5</u>
Nunamiut Corporation Store		4.5
Finance, Insurance and Real Estate		<u>1.5</u>
Nunamiut Corporation office		1.5
Services		<u>5.5</u>
Nunamiut Corporation Fuel Delivery		<u>0.5</u>
AIC Camp		5.0
Government		<u>56.5</u>
Federal		1.0
(Post Office)	(1.0)	
State		<u>0.0</u>
Local		55.5
(City of Anaktuvuk Pass)	(0.0)	
(North Slope Borough School District)	(17.5)	
(North Slope Borough)	(38.0)*	
<u>TOTAL</u>		<u>76.5</u>

* North Slope Borough employment included Public Works Department - 4; Public Utilities Department - 4; Health Department - 2 aides; Public Safety Department - 1 police officer; Housing Department (Maintenance) - 1; Mayor's Office - 1 village coordinator; and North Slope Borough Construction (CIP) - 25.

Source: Alaska Consultants, Inc.

TABLE 38

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1980

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*				*	*	*
Construction	0	0	0	0	0	0				0	0	0
Manufacturing	0	0	0	0	0	0				0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0				0	0	0
Wholesale Trade	0	0	0	0	0	0				0	0	0
Retail Trade	0	0	0	0	0	0				0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0				0	0	0
Services	0	0	0	0	0	0				0	0	0
Miscellaneous	0	0	0	0	0	0				0	0	0
Government												
Federal	0	0	0	0	0	0				0	0	0
State	0	0	0	0	0	0				0	0	0
Local	0	0	0	0	0	0				0	0	0
<u>TOTAL</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>*</u>	<u>*</u>	<u>*</u>

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 39

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	0	0	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>	<u>_*</u>

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 40

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining				*	*	*						
Construction				0	0	0						
Manufacturing				0	0	0						
Transportation, Communication and Public Utilities				0	0	0						
Wholesale Trade				0	0	0						
Retail Trade				0	0	0						
Finance, Insurance and Real Estate				0	0	0						
Services				0	0	0						
Miscellaneous				0	0	0						
Government												
Federal				0	0	0						
State				0	0	0						
Local				0	0	0						
<u>TOTAL</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—*</u>	<u>—*</u>	<u>—*</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>

* Figures withheld to comply with disclosure regulations.

* Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 41

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	0	0	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 42

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1984

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	2	2	7	1	1	1	1	2	2
<u>TOTAL</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 43

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1985

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	5	5	5	4	2	2	2	3	3	3	3	4
TOTAL	—*	—*	—*	—*	—*	—*	—*	—*	—*	—*	—*	—*

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

source : Alaska Department of Labor.

TABLE 44

COVERED INDUSTRY EMPLOYMENT
ANAKTUVUK PASS AREA**
1986

Industry Classification	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	4	4	1	2	2	2	2	2	2	2	2	2
TOTAL	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>

* Figures withheld to comply with disclosure regulations.

** Anaktuvuk Pass area also includes Chandler Lake.

Source: Alaska Department of Labor.

KAKTOVIK

A. PAST POPULATION TRENDS

The modern community of Kaktovik is of comparatively recent origin although the immediate area had previously been occupied as Jenness (1957) reported excavating 58 dwellings in 1913 on the spit now occupied by the DEW Line airport. Barter Island was once an important link in an extensive Eskimo trading network. Each year, Barrow Eskimos traveled to Barter Island to meet with MacKenzie Indians and northern Athabaskan Indians and exchange surplus Russian and inland Eskimo goods for muktuk, stone lamps, English knives, beads, guns and ammunition. The goods received at Barter Island were subsequently traded at Point Hope. Chance (1966) notes, however, that this trading system was largely halted in the 19th century with the advent of commercial whaling in the Arctic. Whalers traded directly with coastal Eskimos, making the complex Native trading network obsolete. In turn, this affected the inland Eskimos who were no longer able to obtain trade goods upon which they had become dependent and many migrated to the coast.

Kaktovik was not recorded by the U.S. Census before 1950. The 1880 Census lists only 50 Eskimos at Colville River for the entire coast between Barrow and the Canadian border, noting that settlements in this area were few and widely scattered. Similarly, the 1890 Census counted no residents along the Arctic Ocean coast east of Barrow. It did, however, describe Barter Island's role as a trading center:

"With the balance of their trade, the Point Barrow natives, after a couple of days' festivities, proceed onward to the eastward as far as

Barter island. Several canoes are left on the beach en route, with the major portion of the women in charge, as it is a general rule that but few females accompany the trading parties to any point where meetings with the **Itchali** or Upper Yukon and Porcupine river Indians take place. Within the past few years the custom has been relaxed, and in 1890 4 families left Point Barrow to reside at Herschel island and several women accompanied the trading parties to Barter island."

Although several families had used Barter Island as their home base, the settlement acquired permanence when the trader Tom Gordon and his family moved there from Demarcation Point in **1923**. In turn, other people were attracted here because the new store provided a market for furs and **also** because the area was a convenient and accessible location for both maritime and inland hunting, fishing and trapping activities.

Later in the 1920s, reindeer were introduced to the Barter Island area. As described by Jacobson and Wentworth (1982), the **people** of this region led a semi-nomadic existence during the **1920s** and **1930s**, congregating at the Barter Island fur trading post on holidays and other occasions but living spread out along the coast for most of the time. The three main reindeer herds were in the Camden Bay, Barter Island and Demarcation Point areas and were driven to the foothills of the Brooks Range during the winter months.

The decline in the fur market caused by the Depression brought hard times to the region. The winter of 1935-36 was reportedly exceptionally severe (Jacobson and Wentworth, 1982) as little game was available and Tom Gordon's trading post exhausted its food supply and was unable to obtain more credit from Barrow. Many of the reindeer were killed for food and

TABLE 45
 POPULATION TRENDS
KAKTOVIK
 1950 - 1985

<u>Year</u>	<u>Popul ation</u>	<u>Percent Change</u>	
		Decenni al	Annual
1950	46		
1960	120	160.9	
1970	123	2.5	
1980	165	34.1	
1981	201		21.8
1982	214		6.5
1983	203		-5.1
1984	207		2.0
1985	209		1.0

Sources: U.S. Census (1950 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

TABLE 46
 POPULATION ESTIMATES*
KAKTOVIK
 1936 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1936**		58	Office of Indian Affairs
1938**		61	Office of Indian Affairs

1940			

1950	46		
1951		86	Kaveo look (Jacobson & Wentworth, 1982)
1953		140-145	Kaveo look (Jacobson & Wentworth, 1962)

1960	120		
1967		145	Bureau of Indian Affairs - Alaska Natives only
1967		150	Federal Field Committee - includes 9 whites
1968		160	Alaska Area Native Health Service
1969		160	Federal Field Committee - includes 10 whites

1970	123		
1973		128	North Slope Borough (Ott)
1974		141	North Slope Borough (Jan)
1975		119	North Slope Borough (July)
1975		147	U. S. Census Bureau
1976		123	North Slope Borough (July)
1976		192	U. S. Census Bureau
1977		134	North Slope Borough (July)
1978		192	North Slope Borough (July)
1979		193	North Slope Borough (July)

1980	165	192	North Slope Housing Survey
1981	201***	201	North Slope Borough (July)
1982	214***	194	U. S. Census Bureau, 1984
1982		189	North Slope Borough (July)
1983	203***	185	Pedersen, Coffing & Thompson, 1985 - includes 31 whites
		203	North Slope Borough (July)
1984	207***	208	North Slope Borough (July)
1985	209***	206	Dept. Community/Regional Aff.
1986		201	Dept. Community/Regional Aff.

	188	Dept. of Fish and Game, Subsistence Division
1987	201	Dept. Community/Regional Aff.

- * Population figures exclude personnel housed at the BAR-Main DEW Line station.
- ** Population estimate for Barter Island only. Another 122 people in 1936 and 135 **people** in 1938 were counted along the coast between Brownlow Point-**Flaxman** Island and Demarcation Point.
- *** Alaska Department of Labor estimates derived using U.S. Census methodology. Where these figures are the same as Borough estimates, the Department accepted local censuses undertaken by the North Slope Borough.

Sources: U.S. Census.
Alaska Department of Labor (1981 - 1985 figures).

clothing while others starved or were killed by wolves. At this time, there were reportedly 58 persons in 10 families living on Barter Island, with another 122 individuals in 20 families along the Beaufort Sea coast between Brownlow Point and Demarcation Bay (Pedersen, Coffing and Thompson, December 1985).

A 1936 survey by the Office of Indian Affairs found that several families in the area were destitute. To help relieve these conditions, a herd of 3,000 reindeer was driven to the Barter Island area from Barrow in late 1937. However, as it neared Barter Island the herd turned back toward its home range at Barrow, taking with it nearly all of the remaining local reindeer. The few that stayed were killed by local residents and the reindeer herding era in the Barter Island area ended.

A census taken by the Office of Indian Affairs in 1938 (Jacobson and Wentworth 1982) provides a good insight into settlement patterns along the coast between Brownlow Point and Demarcation Point at that time:

<u>Location</u>	<u>Population</u>	
	<u>Eskimo</u>	<u>White</u>
Flaxman Island	10	0
Brownlow Point	36	1
Konganevik Point	7	0
Hulahula River	20	0
Barter Island	61	1
Martin Point	10	0
Tapkaurak	5	0
Humphrey Point	9	1
Angun Point	6	0
Aichilik	4	0
Icy Reef	11	0
Pingokraluk	15	0
Demarcation Point	12	0
<u>Total</u>	<u>196</u>	<u>3</u>

The 1939 Census did not list Kaktovik as a village site but did give population figures for several locations in the general area along the Beaufort Sea coast between the Colville River and the Canadian border, as follows:

<u>Location</u>	<u>Population</u>
Brownlow Point	27
Cross Island	10
Demarcation Point	25
Humphrey Point	24
Konganevik Point	12
Martin Point	18
Tigvariak Island	15
<u>Total</u>	<u>131</u>

After Tom Gordon's death in 1938, no one took over the Barter Island trading post. Other traders in the area (at Humphrey Point and Brownlow Point) died in the early 1940s and were not replaced. As a result, people had to travel to Canada to trade and several Kaktovik families moved to Herschel Island during this period.

Hard times continued in the Barter Island area until the mid to late 1940s. In 1945, the U.S. Coast and Geodetic Survey began mapping the Beaufort Sea coast and hired at least 3 Kaktovik people to work on the project. More significantly, as part of the post-war military build-up, Barter Island was selected as the primary station in the Western Arctic for the DEW Line system and the Air Force began construction of an airport here in 1947, necessitating the moving of several houses.

The 1950 Census counted only 46 people at **Kaktovik**. However, the community experienced a period of rapid growth shortly thereafter. By the time a school was opened in August **1951**, there were eight families containing 86 people **living** here (Jacobson and Wentworth, 1982). Also in 1951, the entire area around Kaktovik was made a military reserve and construction on the Barter Island radar installation followed shortly thereafter in 1953-1954. These activities again necessitated moving a **number** of village houses.

By the spring of **1953**, after five of the six families **living** at Herschel Island had returned to Barter Island, Kaktovik's population had grown to between 140 and 145 (reported by **Kaveolook**, 1977, and cited by Jacobson and Wentworth, **1982**). According to Chance (1966), so many jobs were available at Kaktovik that families moved to the village from communities as far away as **Aklavik** (in Canada) and **Wainwright**. Major construction of the DEW Line facilities was completed in **1957** but many local persons continued to work at the facility in maintenance and other positions.

Assuming Kaveolook's 1953 population estimate for Kaktovik was accurate, some of the persons who migrated here during construction of the DEW Line facilities must have subsequently left the area as only 120 persons were counted here in the 1960 Census. Officially, the village had registered a 160.9 percent increase in population since 1950. However, the 1960 village population was still less than that of the general area as counted by the U.S. Census in 1939 or the Office of Indian Affairs in 1938, possibly

because some of the people counted earlier were Inuit and Eskimos seasonally resident along the coast.

Between 1960 and 1970, Kaktovik's population grew by only 2.5 percent to 123 persons. This rate of growth is well below what could be expected from natural increase and it is apparent that a substantial out-migration took place during the decade. The major event of the decade was a third village move to accommodate the needs of the DEW Line facility. This time, the land on which the village now stands was dedicated as a townsite and people gained title to their lots.

Like other North Slope communities, the 1970s were a period of major change in Kaktovik, resulting from passage of the Alaska Native Claims Settlement Act in 1971 and incorporation of the North Slope Borough in 1972. In particular, Borough spending greatly increased the number of permanent positions and temporary construction jobs available to village residents. In turn, this encouraged young people who might otherwise have left the community to remain. Also during the 1970 to 1980 decade, village education facilities were expanded to include a high school program, a development which kept teenagers in the community, whereas many had previously had to travel to Mt. Edgecumbe (in Southeast Alaska) or Chemawa (in Oregon) to complete their schooling. Kaktovik grew by 34.1 percent between 1970 and 1980 to a total of 165 people by the end of the decade.

As elsewhere on the North Slope, Borough capital improvement program spending greatly increased during the early 1980s and this was accompanied

by rapid population growth. Using Alaska Department of Labor estimates, Kaktovik grew by 26.7 percent between 1980 and 1985, with all of the growth taking place between 1980 and 1982. Although changes in Department of Labor methodology after 1982 may have been a factor, with the decline in Borough capital improvement program spending since 1984, this period of rapid population growth has clearly ended and Borough personnel believe that some out-migration is now taking place. That belief is confirmed by a 1986 census undertaken by the Subsistence Division of the **Alaska** Department of Fish and Game which counted a total of **only 188** persons in the community.

B. POPULATION COMPOSITION

The outstanding feature of Kaktovik's population composition is that most residents of this community are Eskimos, whereas the neighboring BAR-Main DEW Line station is exclusively non-Native. Nevertheless, whites have long had a significant presence in the village itself, primarily because in addition to the usual complement of teachers and an occasional missionary or trader, several personnel from the DEW Line station have married local women and have settled in the village.

In 1970, 13 percent of Kaktovik's population was classed as non-Native, the highest proportion of any village on the North Slope. According to the Census, the proportion of Alaska Natives rose slightly between 1970 and 1980 to 90 percent. This is unlike other North Slope villages where the proportion of non-Natives increased during the same period, primarily

because of the addition of village high schools and other specialized Borough services. It is also at variance with the North Slope Borough housing survey conducted in **Kaktovik** in July of 1980. The housing survey counted 53 whites in Kaktovik, or 27.6 percent of the community's total population. Even if 25 whites then based in Kaktovik for construction projects or the U.S. Fish and Wildlife Service are excluded, whites still made up 16.8 percent of the community's total population. The housing survey results were confirmed by Pedersen, **Coffing** and Thompson (December 1985) who counted 31 non-Natives resident at Kaktovik in April 1983, accounting for 16.8 percent of the village's total population of 185.

The continuing influence of strong family and other ties among today's Kaktovik residents is reflected in the stability of the community's population. According to the 1980 North Slope Borough housing survey, slightly over two-thirds of the Alaska Native heads of household had lived in Kaktovik for at least twenty years. **Only** one non-Native head of household had then lived in the community since before 1970. Nevertheless, there is a stable non-Native presence in Kaktovik which is not revealed by the housing survey as, for purposes of the survey, the Alaska Native in racially mixed households was arbitrarily designated the head of household.

In addition to the Census, detailed population surveys in Kaktovik have been undertaken by Alaska Consultants, Inc. in 1980 and by the Subsistence Division of the Alaska Department of Fish and Game in April 1983 and in 1986. Additional population studies in Kaktovik were undertaken by the

Subsistence Division during the summer of 1987 but the results of this work are not yet available. Using these data, a review of changes in the age and sex characteristics of Kaktovik's population was undertaken to determine what, if any, changes had occurred since 1970.

As in other North Slope communities, the population characteristics of **Kaktovik's** Alaska Native and non-Native residents are strikingly dissimilar. According to the 1980 Census, the non-Native population was primarily made up of adults between the ages of **25** and 55 who had virtually no dependents. (It should be noted, however, that in racially mixed households the children would normally be designated as Alaska Natives). The 1980 housing survey had generally the same findings although it counted more young children.

Another significant difference between **Kaktovik's** Alaska Native and non-Native residents is age. According to the 1980 Census, the median age of non-Native males and females was 41.2 and 51.7 respectively. The 1980 housing survey (more believably) found the median ages of non-Native males and females to be 32.8 and 27.2 respectively. As in other North Slope Borough villages, the age of the non-white population primarily reflects a heavy concentration of working age adults with few dependents. This **characteristic** is not believed to have changed noticeably over the years although in earlier days there were probably fewer women and fewer children.

Although the median age of Kaktovik's 1980 Native population (23.7 for males and 19.6 for females according to the Census and 22.3 and 20.0 according to the 1980 housing survey) was young when compared with that of local non-Natives, the State as a whole (26.1 for males and 26.3 for females) and the nation (28.8 for males and 31.3 for females), it was older than those of any other village in the region at the time except for **Atqasuk**. The primary reason for this was a shortage of children under the age of 5.

Unlike the case in 1970 when the Census found that children under the age of 5 accounted for 14.6 percent of the village's total population, the 1980 Census and the 1980 housing survey counted only 4.7 and 4.5 percent respectively of the community's Native population in this age range. This scarcity of young children was also unlike North Slope Borough village norms in 1980 where the housing survey found an average of 12.0 percent of Alaska Natives in the same age range. A 1982 population count in Kaktovik undertaken by the North Slope Borough found the proportion of children under 5 had increased to 7.9 percent, but this was still well below the 1980 Boroughwide average.

Both the 1980 Census and the 1980 housing survey also found a low proportion of Kaktovik's population to be in the 5 to 9 age range (6.1 percent and 5.4 percent respectively), well below the 1980 housing survey's finding of 9.0 percent for all villages in the region excluding Barrow. The 1982 Borough population count for Kaktovik indicated that this group continued to be very small, accounting for a slightly lower 4.2 percent of

the community's total population. Together, these relatively small age groups are now reflected in reduced school enrollments, with final enrollment at the Kaveolook School in 1986/87 being 31 students, down from the 52 recorded at the end of the 1980/81 school year (Alaska Department of Education).

On the other hand, both the 1980 Census and the 1980 housing survey found a very high concentration of Kaktovik residents between the ages of 15 and 24 (30.3 and 26.4 percent respectively), a situation which was found to also be true in 1982 (26.0 percent). To a large extent, the childbearing decisions made by this group will determine the rates of internal population growth at Kaktovik during the next few years.

As in other North Slope villages, comparisons of household size at Kaktovik are misleading. While family sizes have doubtless declined, housing constructed in the community by the Alaska State Housing Authority and, more recently, by the North Slope Borough has resulted in the dispersal of families in a manner more akin to Western norms. The 1970 Census reported an average of 4.7 persons per household at Kaktovik, low compared with other North Slope villages (possibly because the nearby DEW Line station had periodically surplused building materials). By 1982, this had fallen to 3.78 persons per unit (based on a July 1982 Borough population count and an October 1982 housing survey by Alaska Consultants, Inc.) while the 1986 survey by the Alaska Department of Fish and Game's Subsistence Division found an average household size of 3.5 persons. The October 1982 housing survey also indicated that all but 16 of the 50 housing units occupied at

that time had been built either by the Alaska State Housing Authority (5 units), the North Slope Borough (28 units) or the U.S. Fish and Wildlife Service (1 unit). The availability of new housing, together with a small number of young children, are believed to be the primary reasons for the further decline of household populations at Kaktovik.

According to the 1980 housing survey, males in Kaktovik outnumbered females by a 59.6 to 40.4 percent margin. (The 1980 Census reported a less extreme disparity of 54.5 to 45.5 percent). Among Kaktovik's Native population, the 1980 housing survey found that males outnumbered females by a 59.1 to a 40.9 percent margin, the most unbalanced male to female ratio found in any village in the North Slope Borough. (Again, the 1980 Census registered a less extreme disparity of 55.4 to 44.6 percent). A 1982 population count (all races) in Kaktovik indicated that the dominance of males (55.6 percent) over females (44.4 percent) was continuing although to a lesser extent, as did a 1983 population count (all races) by the Alaska Department of Fish and Game's Subsistence Division which found the local male to female ratio to be 55.1 to 44.9 percent.

The disparity in the number of males and females at Kaktovik in 1980 was most noticeable for young adults between the age of 20 and 29. Out of a total of 31 Alaska Native persons in this age range in 1980, 25 (or 80.6 percent) were males. (The 1980 Census recorded a slightly less extreme but still significant imbalance of 72.4 males to 27.6 percent females). The disparity between males and females in the 20 to 29 age range was also noticeable in 1982 when males were found to outnumber females by a 73 to 27

TABLE 47

POPULATION COMPOSITION
KAKTOVIK

Age Range	Alaska Native		Non-Native		Total	
	Male	Female	Male	Female	Male	Female
Under 5 years	12	6	0	0	12	6
5 - 9	16	10	1	1	9	8
10 - 14	(13)	(10)	(2)	(1)	8	3
15 - 19	(8)	(5)	(5)	(2)	10	5
20 - 24	(13)	(8)	(7)	(4)	5	6
25 - 29	(7)	(5)	(0)	(0)	4	4
30 - 34	(11)	(7)	(1)	(1)	9	3
35 - 39	(4)	(2)	(0)	(0)	3	1
40 - 44	(11)	(7)	(2)	(1)	2	1
45 - 49	(6)	(4)	(0)	(0)	5	6
50 - 54	(11)	(7)	(3)	(1)	1	2
55 - 59	(6)	(4)	(0)	(0)	2	1
60 - 64	(4)	(2)	(0)	(0)	2	1
65 - 69	()	()	()	()	0	0
70 - 74	1	3	0	0	1	1
75 and over	()	()	()	()	0	2
<u>TOTAL</u>	<u>63</u>	<u>45</u>	<u>10</u>	<u>5</u>	<u>73</u>	<u>50</u>
<u>Median Age</u>	<u>16.3</u>	<u>22.0</u>	<u>30.0</u>	<u>30.0</u>	<u>19.0</u>	<u>22.9</u>
		<u>19.6</u>		<u>29.3</u>		<u>20.5</u>

Source: U.S. Census.

TABLE 48
 POPULATION COMPOSITION
KAKTOVIK
 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	4	3	7	1	0	1	5	3	8
5 - 9	6	4	10	0	0	0	6	4	10
10 - 14	12	10	22	0	0	0	12	10	22
15 - 19	10	18	28	0	0	0	10	18	28
20 - 24	13	3	16	0	0	0	13	3	16
25 - 29	8	5	13	2	1	3	10	6	16
30 - 34	4	6	10	0	1	1	4	7	11
35 - 39	7	2	9	1	1	2	8	3	11
40 - 44	4	4	8	2	0	2	6	4	10
45 - 49	4	2	6	1	1	2	5	3	8
50 - 54	3	3	6	1	3	4	4	6	10
55 - 59	2	4	6	0	0	0	2	4	6
60 - 64	2	1	3	0	0	0	2	1	3
65 - 69	2	1	3	0	1	1	2	2	4
70 - 74	1	0	1	0	1	1	1	1	2
75 and over	0	0	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>82</u>	<u>66</u>	<u>148</u>	<u>8</u>	<u>9</u>	<u>17</u>	<u>90</u>	<u>75</u>	<u>165</u>
<u>Median Age</u>	<u>23.7</u>	<u>19.6</u>	<u>22.3</u>	<u>41.2</u>	<u>51.7</u>	<u>44.9</u>	<u>24.8</u>	<u>24.9</u>	<u>24.7</u>

Source: U. S. Census.

TABLE 49
POPULATION COMPOSITION*
KAKTOVIK
JULY 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	4	2	6	1	1	2	5	3	8
5 - 9	5	3	8	0	1	1	5	4	9
10 - 14	10	10	20	1	2	3	11	12	23
15 - 19	10	12	22	2	1	3	12	13	25
20 - 24	15	3	18	0	1	1	15	4	19
25 - 29	10	3	13	3	2	5	13	5	18
30 - 34	3	4	7	4	2	6	7	6	13
35 - 39	6	3	9	6	1	7	12	4	16
40 - 44	4	4	8	2	1	3	6	5	11
45 - 49	3	3	6	0	0	0	3	3	6
50 - 54	3	2	5	1	1	2	4	3	7
55 - 59	1	3	4	0	0	0	1	3	4
60 - 64	1	1	2	1	0	1	2	1	3
65 - 69	2	1	3	0	0	0	2	1	3
70 - 74	1	0	1	0	0	0	1	0	1
75 and over	0	0	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>78</u>	<u>54</u>	<u>132</u>	<u>21</u>	<u>13</u>	<u>34</u>	<u>99</u>	<u>67</u>	<u>166</u>
<u>Median Age</u>	<u>23.3</u>	<u>20.0</u>	<u>23.0</u>	<u>32.8</u>	<u>27.2</u>	<u>31.5</u>	<u>25.4</u>	<u>23.5</u>	<u>24.8</u>

* Figures exclude a total of 26 persons (5 Alaska Native males, 2 Alaska Native females, 15 non-Native males and 4 non-Native females) for whom no age information was provided. Thus, a total of 192 persons in Kaktovik were surveyed by Alaska Consultants, Inc.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 50
 POPULATION COMPOSITION*
 KAKTOVIK
 APRIL 1983

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 5 years							13)	15)	28)
5 - 9)))
10 - 14							(23)	(20)	(43)
15 - 19							(((
20 - 24							23)	15)	38)
25 - 29)))
30 - 34							(11	(13	(24
35 - 39							(((
40 - 44							16)	8)	24)
45 - 49)))
50 - 54							(7)	(6)	(13)
55 - 59							(((
60 - 64							8)	5)	13)
65 - 69)))
70 - 74							(1	(1	(2
75 and over							(((
<u>TOTAL</u>							<u>102</u>	<u>83</u>	<u>185</u>
<u>Median Age</u>							<u>26.7</u>	<u>24.7</u>	<u>25.8</u>

source: Pedersen, Coffing and Thompson, December 1985.

TABLE 51

PERMANENT FUND DIVIDEND RECIPIENTS
KAKTOV I K
1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		14	18	24
5 - 9			8	13
10 - 14			11	14
15 - 19			21	19
20 - 24			21	24
25 - 29			17	17
30 - 34			13	19
35 - 39			11	13
40 - 44			15	12
45 - 49			15	20
50 - 54			11	17
55 - 59			10	11
60 - 64			10	7
65 - 69			3	4
70 - 74			3	2
75 & over			1	1
Unknown	0	2	0	0
TOTAL	194	192	188	217

Note: 1982 age breakdown: 0-17 - 46; 18-27 - 38; 28-37 - 31; 38-47 - 38; 48-57 - 25; 58-67 - 13; 68-77 - 3; 78+ - 0; Unknown - 0; Total - 194.
1983 age breakdown: 0-4 - 14; 5-17 - 36; 18-27 - 39; 28-37 - 31; 38-47 - **29**; 48-57 - 22; 58-67 - 15; 68-77 - 4; 78+ - 0; Unknown - 2; Total - 192.

Source: Alaska Department of Revenue.

percent margin. The lack of females in this group has implications for the childbearing capabilities of Kaktovik's young adults **unless** there is some in-migration of women from other villages. On the other hand, the disparity between males and females is not repeated in the younger age ranges, indicating that the current imbalance in the number of young adult males and females here may be a temporary aberration.

co TRENDS IN WAGE AND SALARY EMPLOYMENT

As elsewhere on the North Slope, wage and salary employment is a comparatively recent phenomenon in Kaktovik. Traditionally, the people of this area were nomadic hunters and food gatherers who became increasingly dependent on Western goods following extensive contact with whites during the commercial whaling era. After a trading post was established on **Barter Island** in 1923, area residents periodically traveled here to sell furs and buy supplies. Reindeer herding was also a significant element in the economy of the area in the 1920s and 1930s. However, the main impetus for growth of the modern community was construction of an airport and the DEW Line station on Barter Island in the late 1940s and **mid-1950s** respectively.

Traditional trading activities involved the bartering of goods but, as local demands for Western goods increased and as the demand for those goods began to be satisfied by resident traders, a mixed subsistence-cash economy developed. Trapping, especially for fox, proved to be an effective means for Eskimos to earn cash income and, at the same time, enabled the

establishment of a network of traders in an otherwise unprofitable region. Beginning in 1920, fox fur prices increased steadily in value to a point where trapping changed from being an income supplement and became the major means of livelihood for most residents. As a result, when fur prices plummeted with the onset of the Depression, the results were devastating to the Eskimos of this area.

Reindeer herding was another early economic activity in the Kaktovik area although reindeer were not introduced here until the 1920s. Three main herds occupied the area between Camden Bay and Demarcation Point and provided a source of food and income to some local residents. However, for a variety of reasons, the number of reindeer decreased dramatically during the 1930s and government efforts to introduce additional reindeer into the area in 1937 were unsuccessful. Today, there are no reindeer on the North Slope.

During the 1930s and early 1940s, Kaktovik area residents suffered great deprivation. Fur prices remained depressed and the reindeer industry had collapsed. Furthermore, with the closure of trading posts, opportunities for acquiring goods had diminished and the people were forced to rely on subsistence activities in order to survive. A survey conducted by the Office of Indian Affairs of people living between Brownlow Point and the Canadian border after the severe winter of 1935-36 essentially found the people to be close to starvation. For those people who remained in the area these conditions persisted, although perhaps not to such a great degree, through to the mid 1940s.

The first opportunities for wage and salary employment for area residents came in 1945 when the U.S. Coast and Geodetic Survey began mapping the Beaufort Sea coast and reportedly (Jacobson and Wentworth, 1982) hired at least 3 local people. Construction of an airport on Barter Island by the Air Force in 1947 provided additional employment opportunities and these activities led to permanent settlement of area residents on Barter Island. However, it was construction of the DEW Line station beginning in 1953-54 that brought the most dramatic change. As noted by Chance (1966):

"The radar site was located within a few hundred yards of the newly emerging village and all available Eskimo men were given employment at high salaries. Since there were not enough local residents to fill the new positions, a number of families moved to the village from other communities as far away as **Wainwright** and **Aklavik**."

According to Chance, while some of these in-migrants were newcomers, others had previously lived in the area and had many friends and relatives in the village. As a result, the influx of new residents did not seriously disrupt the close kin and friendship ties among most of the older community members.

During the period of construction, several Eskimos received specialized training in semi-skilled occupations and some became union carpenters and mechanics. In 1957, major construction of the DEW Line was completed but this did not result in a reduction of jobs for villagers as extensive maintenance work was required. Although unions ceased to function at the close of construction and most salaries no longer differentiated between occupational skills, members of all age groups over 18 continued to work at the site (Chance 1966).

In 1960, the Arctic National Wildlife Refuge (originally 8.9 million acres) was first established although this event had little immediate impact on community residents. More significant, in the early 1970s, were passage of the Alaska Native Claims Settlement Act in 1971 and formation of the North Slope Borough in **1972**. According to **Alyeska** Pipeline Service Company records (Alaska Review of Social and Economic Conditions, February 1978), 10 Alaska Native residents of **Kaktovik** also worked at least temporarily on the Trans Alaska Pipeline project at some point between 1974 and **1977**.

The Kaktovik **Inupiat** Corporation has been a factor in the local economy since passage of the Claims Act, both in terms of direct employment in its office and employment in other activities in which the corporation is involved. Incorporation of the North Slope Borough had a more dramatic immediate impact on the local economy as it resulted in the provision of a wide range of new and expanded government services in the community and, with it, an increase in the number of village jobs.

Some idea of the extent of recent economic change in Kaktovik can be gained by comparing counts of employment in the community in 1973 (shortly after the Borough was organized), 1977 (after the Borough was well established but before major capital improvements program construction activity got underway) and in 1982 (when capital improvements program construction activity was at or near its height). Data from the 1980 North Slope Borough housing survey also provides some insight into the components of

employment change although these data are not directly comparable with employer-generated information.

In 1973, **Dupere** and Associates (October 1973) noted that there were about 18 persons in the community who were steadily employed (excluding school teachers). Most (13 persons) were employed at the DEW Line station, 2 were teacher aides and there was one health aide, a store manager and the village corporation land manager. **Dupere** and Associates also noted that a few other village residents had historically obtained temporary construction jobs when these were available in the village and sometimes outside the village when they were not. The principal remaining employment opportunities were said to be hunting and trapping. Other sources of income at the time were principally in the form of government transfer payments.

An informal survey of employment in Kaktovik was undertaken by Alaska Consultants, Inc. for the Minerals Management Service in December 1977. By that time, it was apparent that incorporation of the North Slope Borough had significantly impacted the number of jobs available to local residents. A total of 35.5 community jobs (including school teachers) were counted. Almost two-thirds (20.5 jobs) were in local government, principally with the North Slope Borough School District (10.5 jobs, about half of which were held by whites). Most other Borough employment at the time was associated with force account housing construction and electrification projects. Federal government employment accounted for an annual average of 1.5 jobs divided between the Post Office and the U.S. Fish and Wildlife

Service. Other major employers in the community included the Kaktovik Inupiat Corporation which employed 3 persons in its office and another person in its store; 3 persons employed in construction on a State-funded school project; and 2.5 jobs associated with an air taxi operation. A total of 4 local people were employed at the BAR-Main DEW Line station, a much lower number than had been counted by Dupere and Associates in 1973.

Although the results of the 1980 North Slope Borough housing survey are not directly comparable with the 1977 and 1982 employment counts (the data were collected from individuals rather than employers and no attempt was made to ascertain if jobs were full-time or permanent), they nevertheless provide further insight into the composition of employment in the community because the results were recorded by race. Essentially all adult non-Natives counted in Kaktovik in 1980 were employed. (Most of those not employed were only temporary village residents). The major employers of non-Natives at the time were a construction company working on the school, the U.S. Fish and Wildlife Service which had a 9-person crew in the village, the North Slope Borough School District and FELEC (the division of ITT responsible for DEW Line operations). By contrast, of the village's 100 Alaska Natives aged 16 or over, only 58 percent claimed to be employed. Of the 58 jobs held by Natives, 22 or 38 percent were in Borough construction activities and another 15 or 26 percent were in other Borough positions. The remaining jobs held by Alaska Natives were scattered among the various industry sectors and included 3 persons employed outside the village at Prudhoe Bay.

In addition to the 1980 housing survey, 1980 Census labor force and employment information for Kaktovik (including some comparisons with 1970) were examined. Like the housing survey, Census data are collected from individuals rather than employers. If the 14 U.S. Fish and Wildlife Service employees counted by the housing survey who were temporarily based in Kaktovik in the summer of 1980 (and who presumably were not in the community earlier in the year at the time of the Census) are excluded, total employment data for the Census and the housing survey are roughly comparable although the Census appears to overstate local labor force participation rates and to understate local unemployment rates. Allowing for differences in industry definition (i.e. combining the Census' public administration and services categories and comparing them with local government employment counted by the housing survey), the 1980 Census allocation of employment by industry appears reasonable. However, the 1970 Census industry employment count appears to be too high and possibly included all employment at the neighboring BAR-Main DEW Line facility.

A 1982 survey of employment in Kaktovik undertaken by Alaska Consultants, Inc. for the North Slope Borough counted a total of 67 jobs on an average annual full-time basis, almost double the number counted in 1977. Over half of the jobs (56 percent) were in government. Except for 3 federal government employees associated with the U.S. Fish and Wildlife Service and the Post Office and 2 persons employed by the City of Kaktovik, all government employment in Kaktovik was with the North Slope Borough. The North Slope Borough School District was the major employer, with 19.5 employees.

TABLE 52
 WORK FORCE BY WORK CATEGORY
 KAKTOVIK
 1987

<u>Work Category</u>	<u>Males</u>	<u>% of Workforce</u>	<u>Females</u>	<u>% of Workforce</u>	<u>Total</u>	<u>% of Workforce</u>
Working (permanent)	37		23		60	
Working (temporary)	16		1		17	
Total employment	<u>53</u>	<u>84.1</u>	<u>24</u>	<u>42.9</u>	<u>77</u>	<u>64.7</u>
Not working	10	15.9	32	57.1	42	35.3
<u>TOTAL WORKFORCE</u>	<u>63</u>		<u>56</u>		<u>119</u>	

Source: North Slope Borough.

Alaska Department of Labor monthly employment statistics for the Kaktovik area between 1980 and 1986 are not particularly revealing, in part because of disclosure regulations and in part because at least three major employers (the North Slope Borough, the North Slope Borough School District and Felec Services - the DEW Line site operator) have not reported information to the Department of Labor at the community level, i.e. all North Slope Borough and North Slope Borough School District is counted in Barrow, while Felec Services personnel are counted in Fairbanks. In addition, although Department of Labor figures indicate no employment in trade, this is in fact not the case. The village store is operated by the Kaktovik Inupiat Corporation and, as a result, employment in trade is included with that of finance, insurance and real estate, a **non-disclosable** figure since it involves only one employer.

Aside from a decline in Borough spending, several major events involving the DEW Line Station and the Arctic National Wildlife Refuge have occurred since 1982 which could be expected to have an impact on employment at Kaktovik. The DEW Line station employs as many as 70 personnel, although only 5 (3 Eskimos and 2 non-Natives) were village residents in 1986 (U.S. Fish and Wildlife Service, April 1987). Modernization of the BAR-Main DEW Line station began in 1986 and testing of new equipment is expected to run through 1988, after which minor facility modification may be necessary. It is anticipated that the DEW Line station will continue to be staffed at least for the next twenty years. However, the extent to which local residents will continue to be employed at this facility is unknown.

The second development involves the petroleum potential of the Arctic National Wildlife Refuge which is currently the subject of intense industry interest. The village corporation is the owner of surface estate along a portion of the mainland coast, with the Arctic Slope Regional Corporation having gained title to the subsurface estate as a result of a 1983 land trade with the U.S. Department of the Interior authorized by the Alaska National Interest Lands Conservation Act (ANILCA). A well was subsequently drilled on these lands. Although the results of the drilling remain proprietary, both the Arctic Slope Regional Corporation and the Kaktovik Inupiat Corporation reportedly received substantial compensation for drilling and access rights. However, the extent to which this has been translated into employment at Kaktovik is not discernible from Alaska Department of Labor or other employment statistics to date.

TABLE 53
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
 KAKTOVIK
 1977

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	0.0	0.0
Contract Construction	3.0	8.5
Manufacturing	0.0	0.0
Transportation, Communication and Public Utilities	6.5	18.3
Trade	1.0	2.8
Finance, Insurance and Real Estate	3.0	8.5
Service	0.0	0.0
Government	22.0	62.0
Federal	(1.5)	(4.2)
State	(0.0)	(0.0)
Local	(20.5)	(57.7)
<u>TOTAL</u>	<u>35.5</u>	100.0

Note: Four local residents employed at the Barter Island DEW Line Station are included in the Transportation, Communication and Public Utilities sector. The remaining personnel at this facility were not included in local employment data.

Source: Alaska Consultants, Inc. n.d. Alaska OCS Socioeconomic Studies Program: Beaufort Sea Region - Manmade Environment. Bureau of Land Management, Alaska Outer Continental Shelf Office, Technical Report No 8. Anchorage.

TABLE 54
 SELECTED LABOR FORCE DATA
 KAKTOVIK
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	*	*	0	0	0
Civilian Employed	*	*	59	26	85
Civilian Unemployed	*	*	6	0	6
Not in Labor Force	*	*	5	31	36
Labor Force Participation Rate	*	*	92.0%	45.0%	71.0%
Unemployment Rate: 1980	*	*	9.2%	0.0%	6.6%
1970	*	*	10.3%	41.7%	17.6%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	0	20
Manufacturing	0	0
Transportation	5	4
Communications	26	4
Trade	0	0
Finance, Insurance & Real Estate	0	3
Services	8	29
Public Administration	3	18
Other	0	7
<u>TOTAL</u>	<u>42</u>	<u>85</u>

* Data missing or suppressed.

Source: U. S. Census, 1980.

TABLE 55

SITUATION OF EMPLOYMENT BY RACE AND SEX*
 KATTOVIK
 JULY 1980

Employment Sector	Alaska Native			Non-Native			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mining	3	0	3	0	0	0	3	0	3
Contract Construction	4	0	4	12	0	12	16	0	16
Transportation, Communication and Public Utilities	2	0	2	6	2	8	8	2	10
Trade	0	1	1	0	0	0	0	1	1
Finance, Insurance and Real Estate	3	1	4	0	0	0	3	1	4
Services	1	1	2	0	0	0	1	1	2
Government									
Federal	3	2	5	7	3	10	10	5	15
state	0	0	0	0	0	0	0	0	0
Local	25	12	37	7	3	10	32	15	47
Construction	(18)	(4)	(22)	(0)	(0)	(0)	(18)	(4)	(22)
Non-Construction	(7)	(8)	(15)	(7)	(3)	(10)	(14)	(11)	(25)
TOTAL	41	17	58	32	8	40	73	25	98

* Employment figures exclude 5 Alaska Natives (3 males and 2 females) who listed various forms of assistance, primarily Social Security, as their major source of income. Employment figures also exclude 37 Alaska Natives (16 males and 21 females) and 7 non-Natives (2 males and 5 females) aged 16 and over for whom no employment information was provided or who claimed to be unemployed.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 56
 MAJOR EMPLOYERS BY SECTOR*
 KAKTOVIK
 JULY 1980

<u>Employment Sector and Employers</u>	<u>Number of Employees</u>
Mining	3
Contract Construction	16
L.B. Anderson	(11)
Transportation, Communication and Public Utilities	10
ITT (FELEC)	(6)
Trade	1
Finance, Insurance and Real Estate	4
Services	2
Government	
Federal Government	15
U.S. Fish and Wildlife Service	(14)
State Government	0
Local Government	47
North Slope Borough general government	(12)
North Slope Borough construction	(22)
North Slope Borough School District	(12)
<u>TOTAL</u>	<u>98</u>

* Major employers defined as having at least 5 employees.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

Source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 57
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
KAKTOVIK
 1982

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	7.0	10.4
Contract Construction	6.5	9.7
Manufacturing	0.0	0.0
Transportation, Communication and Public Utilities	6.0	9.0
Trade	3.5	5.2
Finance, Insurance and Real Estate	3.0	4.5
Service	3.5	5.2
Government	37.5	56.0
Federal	(3.0)	(4.5)
State	(0.0)	(0.0)
Local	(34.5)	(51.5)
<u>TOTAL</u>	<u>67.0</u>	100.0

Note: Figures include three local residents employed at the Barter Island DEW Line Station but exclude the balance of Station personnel housed on-base. Figures also include three jobs held by Kaktovik residents at Prudhoe Bay and four job equivalents held by oil and gas-related crews temporarily based in Kaktovik during part of 1982.

Source: Alaska Consultants, Inc. June 1983. Background for Planning, City of Kaktovik. Prepared for the North Slope Borough. Anchorage.

TABLE 58

AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
KAKTOVIK

Agriculture, Forestry and Fishing		<u>0.0</u>
Min ing		<u>7.0</u>
Prudhoe Bay: Pingo		2.0
ARCO		1.0
Explorati on: Western Geophysical)		
Energy Analysis)		4.0
Carson Helicopter)		
Contract Constructi on		<u>6.5</u>
Kaktovik Inupiat Constructi on		4.0
Olympic Constructors and subcontractors		2.5
Manufacturi ng		<u>0.0</u>
Transportation, Communication and Public Utilities		<u>6.0</u>
Audi Air Taxi		3.0
DEW Line (local persons only)		3.0
Trade		<u>3.5</u>
Kaktovik Inupiat Corporation store and fuel		3.5
Finance, Insurance and Real Estate		<u>3.0</u>
Kaktovik Inupiat Corporati on office		3.0
Services		<u>3.5</u>
Ahlers Delivery Service		0.5
Sims Camp		3.0
Government		<u>37.5</u>
Federal		3.0
(Post Office)	(1.0)	
(Fish and Wildlife Service)	(2.0)	
State		0.0
Local		34.5
(City of Kaktovik)	(2.0)	
(North Slope Borough School District)	(19.5)	
(North Slope Borough)	(13.0)*	
TOTAL		<u>67.0</u>

* North Slope Borough employment: Public Works Department - 3; Public Utilities Department - 6; Health Department - 2 aides; Public Safety Department - 1 police officer; Mayor's Office - 1 village coordinator.

Source: Alaska Consultants, Inc.

TABLE 59

COVERED INDUSTRY EMPLOYMENT
KAKTOVIK AREA
1980

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	*	*	*	*	*	*	*	*	*
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	*	*	*
Services	*	*	k	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	6	7	7	5	5	6	6	7	7	6	6	6
state	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	0	0	0	1	1	1	0	0	0
<u>TOTAL</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>31</u>	<u>31</u>	<u>31</u>	<u>26</u>	<u>28</u>	<u>27</u>	<u>21</u>	<u>19</u>	<u>23</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 60

COVERED INDUSTRY EMPLOYMENT
KARTOVIK AREA
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	*	*	*	*	*	*	*	*	*
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	7	7	7	7	7	7	8	8	8	7	7	7
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	0	0	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>21</u>	<u>20</u>	<u>19</u>	<u>29</u>	<u>23</u>	<u>24</u>	<u>24</u>	<u>26</u>	<u>24</u>	<u>22</u>	<u>22</u>	<u>25</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 61

COVERED INDUSTRY EMPLOYMENT
KAKTOVIK AREA
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	7	7	7	7	22	7	7	7	7	7	7	7
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	0	0	0	0	0	0	0	0	0	0	1	1
<u>TOTAL</u>	<u>12</u>	<u>19</u>	<u>20</u>	<u>24</u>	<u>44</u>	<u>27</u>	<u>31</u>	<u>45</u>	<u>38</u>	<u>39</u>	<u>36</u>	<u>42</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 62

COVERED INDUSTRY EMPLOYMENT
KAKTOVIK AREA
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	7	7	7	7	7	7	7	7	7	1	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	1	0	0	0	0	0	0	0	0	2	2	2
<u>TOTAL</u>	<u>41</u>	<u>26</u>	<u>33</u>	<u>28</u>	<u>25</u>	<u>23</u>	<u>20</u>	<u>25</u>	<u>19</u>	<u>13</u>	<u>11</u>	<u>16</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 63

COVERED INDUSTRY EMPLOYMENT
KARTOVIK AREA
1984

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	2	2	2	2	2	2	2	1	1	1	1	1
<u>TOTAL</u>	<u>9</u>	<u>17</u>	<u>14</u>	<u>11</u>	<u>12</u>	<u>12</u>	<u>20</u>	<u>20</u>	<u>18</u>	<u>17</u>	<u>11</u>	<u>11</u>

* Figures withheld to comply with disclosure regulations.

Source: Alaska Department of Labor.

TABLE 64

COVERED INDUSTRY% EMPLOYMENT
KAKTIOVIK AREA
1985

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	1	1	1	1	1	1	2	1	1	1	6	4
<u>TOTAL</u>	<u>43</u>	<u>32</u>	19	<u>18</u>	15	18	<u>22</u>	<u>21</u>	<u>10</u>	14	<u>29</u>	21

* Figures withheld to comply with disclosure regulations.

Source: Alaska Department of Labor.

TABLE 65

COVERED INDUSTRY EMPLOYMENT
KAKTOVIK AREA
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	0	0	0	0	0	0	0	0	0	0	0	0
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	1	0	3	9	9	8	11	8	8	8	6	7
<u>TOTAL</u>	<u>15</u>	<u>36</u>	<u>27</u>	<u>22</u>	<u>25</u>	<u>17</u>	<u>36</u>	<u>33</u>	<u>21</u>	<u>21</u>	<u>21</u>	<u>21</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

POINT HOPE

A. PAST POPULATION TRENDS

The Point Hope area has been occupied for several thousand years, although the oldest evidence of human occupation dates only from about 600 B.C. According to **Burch** (1981), the traditional territory of the Point Hope people extended along the coast of Kotzebue Sound as far as **Kisimilok** Mountain and along the **Chukchi** Sea coast as far as Cape Beaufort. **Burch** estimates that the total population of this area in 1800 was about 1,342 people. Point Hope was the **largest settlement** in Northwest Alaska at this time, with as many as 800 to 1,000 people occupying winter dwellings there. However, **Burch** also notes that the population of the Point Hope area was in decline throughout the nineteenth century, with the decline in the earlier years being mainly due to warfare with neighboring Eskimo and Athabascan groups.

Point Hope Eskimos first encountered Europeans during the early years of the nineteenth century. **Shishmaref** was the first to land here in 1820, but it was not until after 1850 that there was significant contact. In 1850, the Point Hope area had a total population of about 854 (Foote and Williamson, 1966). Although reduced in number by warfare, they remained largely unaffected by outside cultural influences or materials. However, this changed between 1850 and 1885. American whalers were the main disruptive force, primarily because they caused a rapid decline in the population of several important animal species, particularly the bowhead

TABLE 66
 POPULATION TRENDS
 POINT HOPE
 1880 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1880	276*		
1890	301	9.1	
1900	623	107.0	
1910	243	-61.0	
1920	141	-42.0	
1929	139	- 1.4	
1939	257	84.9	
1950	264	2.7	
1960	324	22.7	
1970	386	19.1	
1980	464	20.2	
1981	531		14.4
1982	544		2.4
1983	570		4.8
1984	582		2.1
1985	597		2.6

* Population listed for **Tikirak**. An additional **118** people were counted between Cape **Seppings** and Cape **Lisburne**.

Sources: U.S. Census (1880 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

TABLE 67
POPULATION ESTIMATES
POINT HOPE
1880 - 1986

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1880	276*		
1890	301		
1900	623		
1908		260	Driggs (VanStone, 1962)
1908		287	Driggs (Burch, 1975)
1910	243		
1920	141		
1929	139		
1939	257		
1941		250	Larsen and Rai ney, 1948
1943		258	Bureau of Indi an Affai rs (Foote, 1960)
1946		270	Bureau of Indi an Affai rs (Foote, 1960)
1948		750	Browne, 1949
1949		275	Bureau of Indi an Affai rs (Foote, 1960)
1950	264	306	Bureau of Indi an Affai rs (Foote, 1960)
1952		272	Bureau of Indi an Affai rs (Foote, 1960)
1953		269	Bureau of Indi an Affai rs (Foote, 1960)
1954		290	Bureau of Indi an Affai rs (Foote, 1960)
1955		245	Bureau of Indi an Affai rs {Foote, 1960}
1956		265	Vanstone, 1962
1956		267	Bureau of Indi an Affai rs (Foote, 1960)
1957		315	Bureau of Indi an Affai rs (Foote, 1960)
1958		299	Bureau of Indi an Affai rs (Foote, 1960)
1959		296	Foote, 1960 - i ncl udes 6 whi tes

1960	324		
1967		340	Bureau of Indian Affairs - includes 7 whites
1967		325	Federal Field Committee - includes 13 whites
1968		340	Alaska Area Native Health Service
1969		303	Bureau of Indian Affairs (Milan, 1978)
1969		340	Federal Field Committee - includes 10 whites
1969		381	Northwest Economic Development and Planning Board
1970	386		
1974		404	North Slope Borough (Jan)
1975		425	U.S. Census Bureau
1975		384	North Slope Borough (July)
1976		464	U.S. Census Bureau
1976		408	North Slope Borough (July)
1977		412	North Slope Borough (July)
1978		464	North Slope Borough (July)
1979		527	North Slope Borough (July)
1980	464	480	North Slope Borough Housing Survey - includes 38 whites
1981	531**	531	North Slope Borough (July)
1982	544**	544	North Slope Borough (July)
1982		505	U.S. Census Bureau
1983	570**	570	North Slope Borough (July)
1984	582**	580	Dept. Community/Regional Aff.
1985	597**	570	Dept. Community/Regional Aff.
1986		537	North Slope Borough
1986		600	Dept. Community/Regional Aff.

* Population listed for **Tikirak**. An additional 118 people were counted between Cape **Seppings** and Cape **Lisburne**.

** Alaska Department of Labor estimates derived using U.S. Census methodology. Where these figures are the same as Borough estimates, the Department accepted local censuses undertaken by the North Slope Borough.

Sources: U.S. Census (1880 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

whale and walrus, and contributed to a decrease in caribou numbers. The whalers also introduced a variety of diseases. Together, these forces resulted in the decline of the Eskimo population of Northwest Alaska by 50 percent or more between 1850 and 1885 (Foote and Williamson, 1966). Burch (1975) noted that by 1880, the population of **Tikiraq** (Point Hope) had been reduced by starvation and disease to about a third of its former size, and control of the settlement was wielded by a single person, the infamous Aatanauzaq, believed to have been the most powerful and despotic individual in the history of Northwest Alaska. (Aatanauzaq was later assassinated in 1889).

The 1880 Census counted a total of only 394 people in the Point Hope area, including 276 at **Tikirak** (Point Hope).

<u>Settlement</u>	<u>Location</u>	<u>Population</u>
Cape Lisburne	Cape Lisburne	13
Cape Dyer	Cape Dyer	15
Tikirak	Point Hope	276
Ip-Not	Cape Thompson	40
Cape Seppi ng	Cape Seppi ng	50
<u>Total</u>		<u>394</u>

In 1887, the first coastal whaling station in the Point Hope area was established just east of the village and, within ten years, there were about fifteen (Foote and Williamson, 1966). These stations were managed by whites and manned by Eskimos, most of whom had been brought in from the Seward Peninsula. The Eskimo migrants were not permitted by the local Eskimos to live at Point Hope and, instead, established their own settlements near the whaling stations. (The best known of these

settlements was Jabbertown, so called because of the **babel** of Eskimo dialects). They were paid in goods rather than cash and whale meat was readily available since whale carcasses were abandoned after the baleen had been removed. This influx of Eskimos, often more than 200 people, soon became a regular seasonal activity for Eskimos from south and east of Point Hope and the spring whale hunt became an integral part of their food gathering cycle, especially when the caribou herds began a sharp decline in the late nineteenth century.

The whalers also introduced firearms into Northwest Alaska. Although these weapons were not immediately universally available to the Eskimos, they led to major changes in Eskimo lifestyles as dependence on their use slowly bound the Native people to an outside culture. Firearms also led to changes in hunting since group hunting techniques were no **longer** required and they probably **also** led to over-hunting of some species.

The 1890 Census counted 301 persons (including 5 white males and 1 "other" male) at Point Hope but listed no other settlements in the Point Hope area. The general decline in population in arctic Alaska was noted by the Census:

"The proportion of births to deaths may be safely pronounced as being 1 to 5. . . . It is rare to find a woman who has borne more than 4 children, and when they are told that white women have families of 10 to 12 children they deem the statement a fabrication."

The years 1890 to 1905 marked another period of population change in the Point Hope area. Most of the Seward Peninsula people left and were replaced at the whaling stations by migrants from the Kobuk, Upper and Lower Noatak, Kivalina, Kotzebue and other areas (**Burch, 1975**). In

addition, many native Point Hope people left for the north and famine, disease and alcohol continued to take their toll. For example, VanStone (1962) notes that 12 percent of Point Hope's population died in a measles epidemic in 1902.

The 1900 Census counted 623 people at Point Hope. Presumably this number included a high proportion of Eskimo migrants from other areas and non-Natives living at settlements such as Jabbertown and the whaling stations.

Recognition of the plight of the Eskimos spurred church and government agencies to action. In 1890, soon after the first whaling stations were established near Point Hope, the Episcopal Church had sent a missionary doctor to the village and a mission school was built. A government school was built near Jabbertown shortly afterward in 1904, although this building was moved around 1920 to the Point Hope village. (The mission school was closed in 1924 and the government subsequently assumed responsibility for education for all villagers).

Concern over dwindling Native food supplies also prompted the federal government to introduce reindeer into the Point Hope area late in the first decade of the twentieth century. A herd of domesticated reindeer was driven to Point Hope from the Teller area and was soon split into two sections, one grazing in the Cape Thompson - Augutorux Creek region and the other grazing further north.

In October 1908, a local census of the Point Hope area counted a total of only 260 to 287 people (VanStone and Burch came up with slightly different figures using the same records - VanStone's total figure omitted the reindeer camp and listed only 168 people in Tikiraq itself) in four settlements: Tikiraq, Coopertown, Jabbertown and a reindeer camp. Tikiraq was entirely Eskimo and most of its population of 179 was of local ancestry. Coopertown (44) and Jabbertown (48) were made up largely of outsiders - white whalers who had married Eskimo women and Eskimo migrants from other regions. The ethnic composition of the 16 people at the reindeer camp is not certain (Burch 1975).

The whaling industry disappeared almost as quickly as it had come. The bottom dropped out of the baleen market around 1908 and shore-based whaling abruptly ceased. However, although this disruptive period was over, Point Hope Natives needed an alternate means of obtaining the Western goods to which they had become accustomed. Many turned to trapping which had become more profitable because of a major increase in fur prices. White fox skins which sold for about \$1 each in 1900 were worth nearly \$10 a decade later and, by 1929, as much as \$50 to \$55. Some Eskimo trappers, in partnership with American traders, traveled as far as the Western Canadian arctic in connection with these activities.

The 1910 Census listed a total of 243 people at Point Hope although there may have been more people in the general area. Nevertheless, the apparent 61 percent decline in population since 1900 is misleading as a majority of people included in the earlier figure must have been temporary Native and

white migrants attracted here by whaling activities. These people had left the area by 1910. A comparison of 1910 and 1890 Census figures is probably more indicative of the relative decline of the local population.

After 1910, Point Hope's population continued to decline until the 1930s. It is difficult to ascertain the accuracy of these early censuses, mainly because of the inherent difficulty of trying to count a highly mobile population. However, Foote and Williamson (1966) note that the number of deaths at Point Hope exceeded the number of births until about the second decade of the twentieth century and it is likely that at least some villagers died in the 1918-19 influenza epidemic. Furthermore, trapping activities to which local residents had turned required that the population be more dispersed. Burch (1975) describes the typical village in Northwest Alaska in 1920 as having a core of permanent Native residents plus another group who spent at least the winters "on the land". Finally, there was some migration out of the village in the 1920s to Point Lay.

The bottom fell out of the fur market with the Depression. After 1929, the value of white fox pelts dropped sharply from as much as \$55 each to \$4 or \$5. At about the same time, the local reindeer herds were decreasing in size. These herds had reached a peak of around 5,000 head in the late 1920s but their numbers subsequently fell off due to a combination of factors including poor management, overgrazing and predation. By the mid 1940s, the Noatak and Point Hope herds had nearly disappeared. The return of wild caribou to the area in the early 1940s proved to be the death knell for the reindeer industry. In the fall of 1946, thousands of caribou

migrated into the areas occupied by the last few hundred reindeer. Many reindeer joined the migration and were lost. Today, there are no reindeer in the Point Hope area.

As the trapping and reindeer industries declined, Point Hope residents found it more and more difficult to make a living from the land. Furthermore, pressure was put on the people, especially by missionaries and school teachers, to become less mobile. By World War II, year-round living near or in the village began to be the accepted pattern.

The 1939 Census counted 257 people at Point Hope. This represented a substantial increase over the 139 people counted here in 1929 but was still below the village's population as recorded by the 1880 Census. Many of the basic problems faced by the people of this area in 1940 had existed for decades. The villagers were tied to the American economy by their need for material items which could only be purchased with cash or marketable Native products. However, wage paying employment opportunities within the village remained severely limited, and markets for Native products were both restricted and highly erratic.

Nevertheless, federal government programs instituted during the 1930s had made some contribution to the local wellbeing. The Civilian Conservation Corps (CCC) and WPA made small but valuable contributions through the construction of several shelter cabins and the payment of needed wages during the Depression years. Welfare assistance became another important source of income to many Point Hope families, initially in 1939 with Old

Age Assistance and later with Aid to Dependent Children and Aid to the Blind.

World War II brought some relief to the depressed economy of the region. Fur prices increased tenfold and the large influx of military personnel brought a ready market for Eskimo crafts. In addition, an increasing number of Eskimo men were able to find employment in wage-earning jobs and work for cash wages became an accepted expectation. Although the immediate post-War years were economically depressed, conditions in Point Hope steadily improved thereafter. The **ANICA** (Alaskan Native Industries Cooperative Association) store set up immediately after the War helped stabilize local trading activities and white fox and polar bear fur prices again increased. Also during this period, the use of cash became the accepted means of trade.

The 1950s were a period of increased economic opportunity for Point Hope residents. Construction of the DEW Line system and the AC & W (Aircraft Control and Warning) site at Cape Lisburne provided temporary jobs for many local residents, while others traveled to Kotzebue and other places for summer construction and longshoring work. By 1960, Point Hope's population numbered 324 people, the highest number counted in the community since 1900, and the village continued to grow during the 1960s.

The 1970s marked a period of major change in Point Hope and other North Slope communities resulting from passage of the Alaska Native Claims Settlement Act in 1971, formation of the North Slope Borough in 1972 and

the physical relocation of the village in the late 1970s because of chronic erosion problems at the old village site. In particular, Borough spending (including the village relocation) greatly increased the number of permanent positions and temporary construction jobs available to village residents. Also during the 1970 to 1980 decade, village education facilities were expanded to include a high school program, a development which kept teenagers in the community, whereas many had previously had to travel to Bureau of Indian Affairs schools in Southeast Alaska or Oregon to complete their education. Point Hope grew by 20.2 percent between 1970 and 1980 to a total of 464 people by the end of the decade.

As elsewhere on the North Slope, Borough capital improvements program spending greatly increased during the early 1980s and this was accompanied by rapid population growth. Using Department of Labor estimates, Point Hope grew 28.7 percent between 1980 and 1985, with most growth taking place between 1980 and 1983. Although changes in Department of Labor methodology after 1982 may have been a factor, with the decline in Borough capital improvement program spending since 1984, this period of rapid population growth has clearly ended. A North Slope Borough census in 1986 counted a total of 537 people at Point Hope, indicating that some out-migration may now be taking place.

B. POPULATION COMPOSITION

Like other North Slope villages, the outstanding feature of Point Hope's population is the high proportion of Eskimo residents. Non-Natives were a

significant element in the local population during the whaling era (although they did not live in the village) but since that time the non-Natives living here have usually been limited to teachers or missionaries. This is still essentially true (half of the 38 non-Native persons counted in the 1980 housing survey were in families associated with the North Slope Borough School District) although the expansion of Borough services has also resulted in the stationing of non-Native public safety officers and other specialized employees in the village. As a result, the number of non-Natives rose from about 6 counted by Foote in 1969 to 30 recorded by the 1980 Census. The 1980 North Slope Borough housing survey counted 38 non-Natives in the village, while preliminary results from the 1986 North Slope Borough census counted 34 (including 2 American Indians, presumably from other states).

Two detailed population studies have been conducted in Point Hope, one by Alaska Consultants, Inc. in 1980 (the North Slope Borough housing survey) and one by the North Slope Borough in 1986, as well as U.S. Census counts. Using these data, the age and sex characteristics of Point Hope's population were reviewed to determine what, if any, changes had occurred between 1970 and 1986.

The population characteristics of Point Hope's Alaska Native and non-Native residents are not alike but those of non-Natives are generally typical of non-Natives in other North Slope villages. The 1980 Census found the median age of the non-Native population in Point Hope to be 30.9 (with the 1980 housing survey recording a similar median figure for non-Natives of

30.2). The median age for non-Native males (30.0 according to the 1970 Census, 32.5 according to the 1980 Census and 31.0 according to the 1980 housing survey) has remained basically the same. On the other hand, the median age of non-Native females in Point Hope was only 14.9 according to the 1970 Census (mainly because of the presence of several female children) but had risen to **29.9** by the **time** of the 1980 Census. (The 1980 housing survey found a median age of only **17.5** for non-Native females but Census figures are probably more reliable as the housing survey lacked age information for half of the community's non-Natives).

In North Slope Borough villages, non-Native males typically outnumber females. This is true in Point Hope (although non-Native females slightly outnumbered males in 1970). The 1980 Census found that non-Native **males** outnumbered non-Native females by almost two to one. The **1980** housing survey found a much closer division of 20 males and 18 females.

Unlike the non-Native population, Point Hope's Eskimo population is young. The 1970 Census found the median age of Native males to be 16.4 and that of females to be 16.3. At that time, over one-third (35.5 percent) of the village's Eskimo population was aged between 5 and 14. The proportion of people in the under 5 age range was smaller (12.5 percent), presumably related to the introduction of contraceptive devices into the village during the 1960s.

By the time of the 1980 Census, the median age of Point Hope's Eskimo population had risen significantly to 21.3 for males and 18.8 for females,

due mainly to the aging of the "bumper" baby crop born before the mid-1960s. Nevertheless, the median age of Point Hope's population remained young, even by Borough standards. (The 1980 housing survey recorded similar median ages for Native males and females of 20.3 and 18.2 respectively, the lowest found for any North Slope Borough village). Furthermore, both the Census and the housing survey showed an increased number of children in the very young age ranges (i.e. under 5). This trend has accelerated, as evidenced by Permanent Fund Dividend statistics and the 1986 Borough census. (The 1986 Borough census found that children of all races under the age of 5 accounted for a very high 19.3 percent of the village's population, up from 12.9 percent in 1980 and 12.4 percent in 1970). If that trend continues, the median age of Point Hope residents can be expected to decline in the future.

Overall, the 1980 Census found the median ages of Point Hope residents to be 22.5 for males and 19.3 for females. This was well below those recorded for the State (26.1 for males and 26.3 for females) and the nation (28.8 for males and 31.3 for females) in 1980.

Household densities are another indicator of population change. However, while family sizes have doubtless declined (although birth rates now appear to be increasing), comparisons of household size in Point Hope and other North Slope Borough villages are misleading. In 1956, VanStone (1960) reported 265 people living in 50 houses for an average of 5.3 persons per unit. Foote (1960) counted 296 people in 61 houses in 1959 for an average of 4.9 persons per unit. (It seems likely that both authors included

vacant units in their total house counts. For example, Foote stated that as of October 1959, 84.5 percent of village households had 5 or more occupants and 65 percent had 7 or more members). The 1970 Census found an average of 5.8 persons per unit in Point Hope but household densities decreased markedly thereafter due, in large part, to the construction of housing by government agencies. In 1970, the Alaska State Housing Authority built 23 units in the village and, at the time of the 1980 housing survey, the North Slope Borough had **built 30 single** family units and a four-plex and planned to build another 27 units. The greater availability of housing permitted the dispersal of Native families in a manner more resembling Western norms and the 1980 housing survey found an average of 4.6 persons per household, while the 1986 Borough census recorded an average of 4.0.

Future childbearing and residency decisions by young Native **adults** in Point Hope are expected to play a large part in determining future rates of community growth. Since 1980, this group has produced a very large number of young children. Should these high birth rates continue, further population growth at Point Hope is likely even if the village experiences increased rates of out-migration. On the other hand, Borough capital improvements program spending is now at a low level, with few construction jobs currently being available locally. Such conditions could be expected to encourage at least seasonal out-migration. VanStone (1962) remarked that Point Hope Eskimos had unusually strong ties to their village and it remains to be seen how much or how soon any significant out-migration might occur.

TABLE 68
 EWUINATION COMPOSITION
 POINT HOPE
 1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	26	20	46	0	2	2	26	22	48
5 - 9	74)	57)	131)	3)	3)	6)	38	34	72
10 - 14	)	)	)	)	)	)	39	26	65
15 - 19	(37	(27	(64	(1	(1	(2	29	18	47
20 - 24	(	(	(	(	(	(	9	10	19
25 - 29	(20	(16	(36	1)	1)	"2)	13	11	24
30 - 34	)	)	)	)	)	)	8	6	14
35 - 39	(24	(13	(37	(2	(2	(4	18	11	29
40 - 44	(	(	(	(	(	(	8	4	12
45 - 49	(12	(10	(22	(0	(0	(0	5	6	11
50 - 54	)	)	)	)	)	)	7	4	11
55 - 59	(8	(10	(18	(1	(0	(0	5	5	10
60 - 64	(	(	(	(	(	(	4	5	9
65 - 69	)	)	)	)	)	)	3	2	5
70 - 74	8)	7)	15)	0)	0)	0)	1	3	4
75 and over	)	)	)	)	)	)	4	2	6
<u>TOTAL</u>	<u>209</u>	<u>160</u>	<u>369</u>	<u>8</u>	<u>9</u>	<u>17</u>	<u>217</u>	<u>169</u>	<u>386</u>
<u>Median Age</u>	<u>16.4</u>	<u>16.3</u>	<u>16.3</u>	<u>30.0</u>	<u>14.9</u>	<u>20.0</u>	<u>16.0</u>	<u>15.8</u>	<u>15.9</u>

source: Us. census.

TABLE 69

POPULATION COMPOSITION
POINT HOPE
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	30	27	57	2	1	3	32	28	60
5 - 9	19	25	44	0	1	1	19	26	45
10 - 14	23	26	49	2	1	3	25	27	52
15 - 19	37	32	69	0	1	1	37	33	70
20 - 24	25	21	46	0	0	0	25	21	46
25 - 29	24	12	36	4	2	6	28	14	42
30 - 34	16	9	25	4	4	8	20	13	33
35 - 39	10	10	20	3	1	4	13	11	24
40 - 44	9	5	14	4	0	4	13	5	18
45 - 49	11	11	22	0	0	0	11	11	22
50 - 54	6	4	10	0	0	0	6	4	10
55 - 59	5	7	12	0	0	0	5	7	12
60 - 64	6	1	7	0	0	0	6	1	7
65 - 69	3	9	12	0	0	0	3	9	12
70 - 74	4	3	7	0	0	0	4	3	7
75 and over	2	2	4	0	0	0	2	2	4
<u>TOTAL</u>	<u>230</u>	<u>204</u>	<u>434</u>	19	<u>11</u>	30	<u>249</u>	<u>215</u>	<u>464</u>
<u>Median Age</u>	<u>21.3</u>	<u>18.8</u>	<u>19.9</u>	<u>32.5</u>	<u>29.9</u>	<u>30.9</u>	<u>22.5</u>	<u>19.3</u>	<u>20.5</u>

source : *Us. census.*

TABLE 70

POPULATION COMPOSITION*
POINT HOPE
JUNE 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	28	33	61	0	2	2	28	35	63
5 - 9	20	22	42	0	0	0	20	22	42
10 - 14	24	24	48	2	1	3	26	25	51
15 - 19	34	30	64	0	2	2	34	32	66
20 - 24	27	18	45	0	0	0	27	18	45
25 - 29	20	14	34	1	1	2	21	15	36
30 - 34	11	6	17	3	1	4	14	7	21
35 - 39	9	7	16	1	1	2	10	8	18
40 - 44	8	8	16	1	0	1	9	8	17
45 - 49	9	7	16	1	0	1	10	7	17
50 - 54	9	7	16	0	1	1	9	8	17
55 - 59	3	5	8	0	0	0	3	5	8
60 - 64	5	2	7	1	0	1	6	2	8
65 - 69	4	5	9	0	0	0	4	5	9
70 - 74	3	3	6	0	0	0	3	3	6
75 and over	1	1	2	0	0	0	1	1	2
<u>TOTAL</u>	<u>215</u>	<u>192</u>	<u>407</u>	<u>10</u>	<u>9</u>	<u>19</u>	<u>225</u>	<u>201</u>	<u>426</u>
<u>Median Age</u>	<u>20.3</u>	<u>18.2</u>	<u>19.3</u>	<u>31.0</u>	<u>17.5</u>	<u>30.2</u>	<u>20.9</u>	<u>18</u>	<u>19.5</u>

* Figures exclude a total of 54 persons (17 Alaska Native males, 18 Alaska Native females, 10 non-Native males and 9 non-Native females) for whom no age information was provided.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 71
POPULATION COMPOSITION*
POINT HOPE
1986

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
<i>Under 5 years</i>							61	42	103
<i>5 - 9</i>							39	38	77
<i>10 - 14</i>							24	25	49
<i>15 - 19</i>							16	21	37
<i>20 - 24</i>							26	19	45
<i>25 - 29</i>							24	27	51
<i>30 - 34</i>							23	18	41
<i>35 - 39</i>							18	8	26
<i>40 - 44</i>							13	10	23
<i>45 - 49</i>							5	8	13
<i>50 - 54</i>							15	12	27
<i>55 - 59</i>							8	8	16
<i>60 - 64</i>							2	6	8
<i>65 - 69</i>							4	2	6
<i>70 - 74</i>							3	4	7
<i>75 and over</i>							2	2	4
<u>TOTAL</u>							<u>283</u>	<u>250</u>	<u>533</u>
<u>Median Age</u>							<u>20.4</u>	<u>19.9</u>	<u>20.1</u>

* Figures exclude 4 persons because of coding errors.

Source: North Slope Borough.

TABLE 72
 PERMANENT FUND DIVIDEND RECIPIENTS
 POINT HOPE
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		73	62	79
5 - 9			78	76
10 - 14			55	49
15 - 19			45	43
20 - 24			55	64
25 - 29			58	64
30 - 34			34	35
35 - 39			33	30
40 - 44			23	27
45 - 49			23	17
50 - 54			22	25
55 - 59			11	17
60 - 64			11	8
65 - 69			7	9
70 - 74			7	8
75 & over			8	7
Unknown	1	5	1	3
<u>TOTAL</u>	<u>503</u>	<u>519</u>	<u>533</u>	<u>561</u>

Note: 1982 age breakdown: 0-17 - 222; 18-27 - 110; 28-37 - 60; 38-47 - 38; 48-57 - 34; 58-67 - 21; 68-77 - 14; **78+** - 3; Unknown - 1; Total - 503.
 1983 age breakdown: 0-4 - 73; 5-17 - 135; 18-27 - 119; 28-37 - 72; 38-47 - 41; 48-57 - 40; 58-67 - 19; 68-77 - 13; 78+ - 2; Unknown - 5; Total - 519.

Source: Alaska Department of Revenue.

The continuing influence of strong family and other ties among Point Hope residents is reflected in the stability of the community's Native population. According to the 1980 North Slope Borough housing survey, almost 85 percent of the community's Alaska Native heads of household had lived there since before 1960. By contrast, no non-Native heads of household had lived in Point Hope for more than five years.

CO TRENDS IN WAGE AND SALARY EMPLOYMENT

Like most other Northwest Alaska communities, wage and salary employment is a relatively recent development in Point Hope. Traditionally, the people of this area were hunters and food gatherers, a way of life that was interrupted and **changed** by the commercial whaling era during the late nineteenth century.

After the whaling era was over, the people of this area turned to trapping as a means of obtaining Western goods to which they had become accustomed. Reindeer were another source of village income (and food) but subsistence continued to be the major focus of economic activity until the 1970s. Subsistence remains an important element in Point Hope's economy (although it is not considered in this report) but its character has changed to accommodate the need for residents to remain in the village for increasingly long periods of time.

Some idea of the gradual evolution of wage and salary employment at Point Hope can be gained from reports made about the community between the 1930s

and the 1980s. For example, when Commander **Zeusler** visited Point Hope in 1937, he noted the community's ideal location for and heavy dependence on subsistence activities. He also reported that the Natives owned a cooperative store and a herd of reindeer, both supervised by the school teacher. A lack of driftwood for fuel was cited as a problem in the village at the time.

Later in the 1930s, the introduction of welfare programs (first Old Age Assistance followed by Aid to Dependent Children and Aid to the Blind) proved to be an important source of income for many Point Hope families. Establishment of a local territorial guard (later the National Guard) unit in 1940 also brought some money to the 40 or so members. According to VanStone (1962), no more than half a dozen Point Hope men were drafted for military service during World War II, mainly because of the high incidence of tuberculosis.

The 1950s were a period of change in Point Hope, due mainly to increased employment opportunities available to men in the village. This began during the 1951 to 1953 period when about 30 local men worked on construction of the Cape **Lisburne** AC and W (Aircraft Control and Warning) site, about 50 miles north of Point Hope (VanStone, 1962). According to VanStone, many men joined a building trades union at that time, a factor which contributed to their later success in obtaining summer employment elsewhere.

In the 1950s, VanStone also noted that Point Hope men had traveled to Nome and Fairbanks during the summer for a number of years to work in gold dredging operations. At the time of VanStone's fieldwork (1955 to 1956), this was **still** the chief non-union employment opportunity although relatively low wages combined with transportation expenses limited the amount of money that a man was able to bring home. Some non-union employment was also available in **Kotzebue** and Barrow, with it often being possible for a man to combine longshoring or other work in those villages with ivory carving for sale to tourists (**VanStone, 1962**).

Employment opportunities within the village in the 1950s were described by VanStone (1962) as being limited mainly to occasional part-time work at the school or mission. At the time, the only village people with full-time employment were the postmaster, storekeeper, assistant storekeeper and a maintenance man at the school. **In** addition, a mission interpreter was paid for approximately 20 hours of work per week and full-time or part-time jobs for women were sometimes available at the school. VanStone also noted that the Point Hope people, like most other Eskimos of the Arctic coast, were **fully** dependent on hunting for the bulk of their food supply and for that of their dogs.

At the time of VanStone's fieldwork, the Bureau of Indian Affairs school had two teachers. Sometimes the school also had a teacher's aide, usually a local person with a high school education. The only other permanent white village residents were the Episcopal priest and his wife.

A good overall picture of Point Hope's economy in the late 1950s is provided by the Public Health Service's Alaska Dietary Survey, 1956-1961. This publication contains a Bureau of Indian Affairs estimate of total village income for 1958 of only \$60,663.50. Of this, wages accounted for approximately half (\$30,770.00), while direct welfare (\$11,451.00) and unearned income such as Social Security and unemployment insurance (\$10,495.00) made up **slightly** more than one-third. The remaining income sources were estimated at \$7,295.40 from arts and crafts and \$622.10 from the sale of furs and hides. The report mentioned that the sale of artifacts was an important source of income for many families in 1958, but that such income was at a minimum in 1963. At the time, there were two stores in the village - a cooperative store with a manager appointed by the village council and one privately owned by a local Eskimo family. Yearly cash income was described as variable for most families since it was mainly derived from summer wage work (construction jobs, mines, **etc.**) and only a few residents - a school janitor, the postmaster, the store manager - had year-round jobs. A National Guard unit at Point Hope also provided a source of income to some families.

In 1959, Foote (1962) described village employment as consisting of 2 full-time store employees and one assistant, a postmaster/welfare agent, a Coast Guard Lamplighter, a village light plant manager and operator, a full-time Bureau of Indian Affairs school employee, an Episcopal Mission interpreter, a sanitation aide working for the Alaska Department of Health and 3 paid village administration members. Foote also indicated that 18 local members of the National Guard received income from that source and that seasonal

part-time employment in the village was obtained from longshoring in the fall, working for the community and school and, occasionally, jobs at the mission. Nevertheless, of the 48 Native households in Point Hope at that time, only 11 were said to have full-time employment or to be old age pensioners and were thus not considered dependent upon hunting activities. At the time, he estimated that the Native village of Point Hope depended upon the local biological environment for **80** percent of its food, 30 percent **of** its clothing, about **80** percent of its important work apparel, 37 percent of its earning cash income, **65** percent of its **fuel** and 80 percent of its transportation means. Finally, he noted that after spring ice hunting, many able bodied men from the village left for Kotzebue and other Alaska towns to work for wages.

In **1967**, the Corps of Engineers (**1972**) noted that outside of subsistence activities the sale of skins, ivory tusks, Native **craftwork**, guide services and summer employment provided the only cash income for Point Hope families. At that time, aside from homes, village amenities consisted of a school, a village-owned power plant, a church and missions, a U.S. Public Health Service dispensary, a post office, a National Guard armory, two small general stores, fuel oil tank farms, an airfield, two roadhouses, village community center buildings a village water supply system (summer only) and a Native-owned cooperative store and trading company.

A manpower survey conducted by the Alaska Department of Labor in Point Hope in 1970 counted 30 employed and 56 unemployed persons in the community.

The same survey found that 21 of the 30 persons employed had annual incomes of less than \$6,000.

During the 1970s, several events impacted on wage and salary employment in Point Hope. Following passage of the Alaska Native Claims Settlement Act in 1971, the **Tigara** Corporation (and, later, its subsidiaries) became a significant force in the local economy, both in terms of direct employment in its office and employment in other activities in which the corporation is involved. Incorporation of the North Slope Borough in July **1972** has had even more significant impacts on the local economy as it resulted in the provision of a wide range of new and expanded government services in the community and, with it, a dramatic increase in the number of village jobs. (The entire village was relocated by the North Slope Borough to a new site on the Point Hope spit in the late 1970s because of persistent and severe erosion problems at the old site. Following the move, the pace of Borough capital improvements program spending in the village accelerated). Construction of the Trans Alaska Pipeline project between 1974 and 1977 also had a modest impact on the village. According to **Alyeska** Pipeline Service Company records (Alaska Review of Social and Economic Conditions), 38 Alaska Native residents of Point Hope worked at least temporarily on this project.

In 1973, shortly after the North Slope Borough's incorporation, **Dupere** and Associates noted that Point Hope was still primarily a subsistence village but stated that about a *dozen* local men were construction union members who left the community each summer for work elsewhere in the State. Within the

community, **Dupere** and Associates found that the only full-time employment was that associated with the Borough school (made up of 4 teachers, 4 teacher aides, 2 maintenance men and a cook), the AVEC (Alaska **Village** Electric Cooperative) power plant, the local Native store and several social service programs. Public assistance programs were cited as constituting the remainder of the community's cash income.

The **1980** North Slope Borough housing survey provides further insight into the composition of employment in Point Hope because the results were recorded by race. These results are not directly comparable with a 1982 employment survey conducted by Alaska Consultants, Inc. because the data were collected from individuals rather than employers and no attempt was made to ascertain if the jobs were full-time or permanent. The housing survey found that all but 2 of the non-Natives aged **16** or more then **living** in Point Hope were employed, with 64 percent of those employed working for the North Slope Borough **School** District and most of the remainder (excluding only 2 persons employed by the store and one by the **Tigara** Corporation) working for the North Slope Borough general government. Reliable figures on participation rates of Alaska Natives are not available from the housing survey because a large number of people were away from the village for hunting or other reasons at the time of the survey. Nevertheless, it is apparent from the available data that Native participation rates, especially those of women, were far below those of non-Natives.

The 1980 housing survey found that almost three-quarters of the people with jobs were employed either directly by the North Slope Borough or in related capital improvements program construction activities. Apart from 6 persons who traveled away from the village to work in mining activities at **Prudhoe Bay** or elsewhere, almost all of the remaining jobs counted were with the **Tigara Corporation's** store or central office.

In addition to the 1980 housing survey, 1980 Census labor force and employment information for Point Hope (including some comparisons with 1970) were examined. Like the housing survey, Census data are collected from individuals rather than employers and total employment data for the two surveys appear to be roughly comparable. The assignment of employment by industry sector by the Census, however, appears to bear little relation to that found by the 1980 housing survey or to a **1982** employment survey conducted by Alaska Consultants, Inc. In addition, total employment listed by the Census for Point Hope in 1970 appears much too high when compared with that described by the Alaska Department of Labor in 1970 and by **Dupere and Associates** in 1973.

A 1982 survey of employment in Point Hope undertaken by Alaska Consultants, Inc. for the North Slope Borough counted a total of 112.5 jobs on an average annual full-time basis, including 3 jobs held by local residents at **Prudhoe Bay** as well as jobs held by itinerant construction workers then residing in the village. (This is slightly less than the number counted in the 1980 housing survey but results of the former survey do not necessarily equate to full-time or year-round employment).

The largest industry sector in 1982 was government which accounted for 50 jobs (44.4 percent of the total), all but one of them with the North Slope Borough. However, government employment figures alone understate the importance of the North Slope Borough as an employer since essentially all of the 38 contract construction jobs (33.8 percent of the total) were associated with North Slope Borough capital improvement program projects. (Unlike other villages, most Borough CIP projects at that time were contracted to the **Tikigaq** Corporation, a subsidiary of the local village corporation, with the result that there was no direct Borough construction employment in Point Hope). Together, the government and contract construction sectors accounted for 78.2 percent of average annual full-time employment at Point Hope in 1982.

Excluding jobs held outside the village, other employment in Point Hope in 1982 was limited to the trade, the finance, insurance and real estate and the service sectors. All employment in trade at that time was associated with the village corporation's store and all employment in finance, insurance and real estate was associated with the **Tigara** Corporation's office. Employment in the service sector included a construction camp, the Episcopal church and a small hotel run by the village corporation.

The North Slope Borough has recently published some employment statistics for its member communities in its Economic Profile series, including the following information for Point Hope:

	<u>North Slope Borough School District</u>	<u>North Slope Borough General Government</u>	<u>Village Corporation</u>	<u>City Government</u>
Oct. 1985	54	52	28	3
June 1986	50	41	28	4
Dec. 1987	78	76	20	12

It is not possible to compare these figures with those counted in the community by Alaska Consultants, Inc. in 1982 since Borough statistics do not purport to equate to average annual year-round employment. However, if the Borough series is maintained in a consistent manner in the future (preferably with counts done at the same time each year), it could provide a useful barometer of employment change at the community level.

As part of a census conducted in Point Hope in 1986, the North Slope Borough also asked questions relating to employment and unemployment. People were asked to indicate the months they had worked between January 1984 and March 1986, the industry sector in which they were employed for the longest period and the location of the job (i.e. Point Hope or outside the village).

It should be noted that the North Slope Borough census has the same shortcomings as 1980 housing survey and 1980 Census data in that the results are employee-generated and do not purport to equate to average annual full-time employment. In fact, preliminary analysis indicates that a certain amount of job turnover has been built into the results. (For example, 62 persons claimed employment with the North Slope Borough School District at some point between January 1984 and March 1986. This is greater than the total number of persons employed locally at any one time

by the School District according to the Borough's own statistics). In addition, data relating to employment during the prior two years pertains only to those persons surveyed in 1986.

With those qualifications, the 240 adults who answered this series of questions responded as follows:

1984

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Ott</u>	<u>Nov</u>	<u>Dec</u>
Working	126	124	120	122	126	142	131	117	120	120	123	121
Not Working	98	100	104	102	98	82	93	107	104	104	101	103
No Response	16	16	16	16	16	16	16	16	16	16	16	16

1985

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Ott</u>	<u>Nov</u>	<u>Dec</u>
Working	114	117	119	125	123	146	138	113	116	117	115	118
Not Working	126	123	121	115	117	94	102	127	124	123	125	122

1986

	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>
Working	119	110	118
Not Working	121	130	122

Of the 184 persons who responded to the question, 166 (90.2 percent) claimed to have worked for the longest period between January 1984 and March 1986 for the North Slope Borough School District (33.7 percent), the North Slope Borough general government (23.4 percent), the **Tigara** Corporation or its subsidiaries (30.8 percent) or private contractors working on Borough capital improvements program projects (2.7 percent). Although a minor share of employment with the **Tigara** Corporation may have been associated with non-Borough activities, it is apparent that there continues to be a very heavy reliance on Borough spending in Point Hope.

Although Point Hope residents have a tradition of traveling outside the village for employment, it appears that few were doing so in 1986. Of the 191 persons answering the question relating to the location of the job held for the longest time between 1984 and 1986, 172 or 90 percent had worked in Point Hope. Another 9 persons (4.7 percent) had worked in other North Slope Borough communities and 3 more (1.6 percent) claimed to have worked at Prudhoe Bay. Only 7 persons (3.7 percent) **claimed** to have worked in locations outside the North Slope Borough.

Further analysis of the 1986 Point Hope census by the North Slope Borough provides additional information on the employment status of the community's Inupiat workforce (defined by the North Slope Borough as persons between the ages of 17 and 65). The *data indicate that* almost 55 percent of the community's workforce was unemployed at the time of the census, with the proportion of the **Inupiat** male workforce which was not working (58.2 percent) being higher than that of **Inupiat** females (50.5 percent). The main reason for the higher rate of unemployment for males is presumably the cutback in construction employment associated with the North Slope Borough capital improvements program.

Alaska Department of Labor monthly employment statistics for the Point Hope area between 1980 and 1986 were examined to see they could provide a reliable time series by which trends in employment in the community could be assessed. However, this proved not to be the case for three main reasons. First, disclosure regulations limit the availability of data to the government sector. Second, local government employment data shown

TABLE 73
 INUPIAT WORKFORCE BY WORK CATEGORY
 POINT HOPE
 1986

<u>Work Category</u>	<u>Males</u>	<u>% of Male Population</u>	<u>% of Male Workforce</u>	<u>Females</u>	<u>% of Female Population</u>	<u>% of Female Workforce</u>	<u>Total</u>	<u>% of Total Population</u>	<u>% of Total Workforce</u>
Working	51	37.2	41.8	46	36.8	49.5	97	37.0	45.1
Not Working	71	51.8	58.2	47	37.6	50.5	118	45.0	54.9
<u>Total Workforce</u>	<u>122</u>	<u>89.1</u>	<u>100.0</u>	<u>93</u>	<u>74.4</u>	<u>100.0</u>	<u>215</u>	<u>82.1</u>	<u>100.0</u>
Not Part of the Workforce	15	10.9		32	25.6		47	17.9	
<u>Total Population</u>	<u>137</u>	<u>100.0</u>		<u>125</u>	<u>100.0</u>		<u>262</u>	<u>100.0</u>	

Note: Of 165 individuals who were not working and not part of the workforce, 47 were not looking for work within the last year and were therefore identified as not part of the workforce.

source: North Slope Borough Planning Department. December 198?. North Slope Borough Semi-Annual Economic Profile. (Volume III, Number 1).

represents that only for the City of Point Hope since all North Slope Borough general government and North Slope Borough School District employment has been counted at Barrow, the Borough headquarters. Finally, employment at the Cape **Lisburne** AC & W (Aircraft Control and Warning) site is included in Point Hope data. This military site is physically isolated and employment here is unrelated to that of Point Hope.

Department of Labor personnel were contacted regarding apparent inconsistencies in the limited data that were available. For example, Department of Labor records indicate that federal government employment in this area is recorded as military, presumably related to the Cape **Lisburne** AC & W site. However, very few military personnel are assigned here, with most being civilian contractors. Furthermore, the numbers shown in the early **1980s** appear to be approximately double the normal manning level of Cape **Lisburne**.

Outside of government, the **Tigara** Corporation and its subsidiaries are the major employers in Point Hope. According to the Department of Labor, employment data for the **Tigara** Corporation are included in the trade rather than the finance, insurance and real estate sector since the corporation's major activity here centers around the operation of its store. However, all employment data for the trade sector are affected by disclosure regulations.

A look was also taken at total covered employment in the Point Hope area to see if it provided any insight into gross trends and/or changes in

employment that may have occurred between 1980 and 1986. However, the inclusion of employment associated with Cape Lisburne and the exclusion of Borough general government and Borough School District employment make these statistics essentially meaningless.

A field count of employment in Point Hope, preferably one which uses Department of Labor methodology, appears to be the only way in which an accurate picture of current conditions could be obtained. Such a count **should** also include an estimate of the amount of employment of **local** residents outside the village. Seasonal out-migration for employment declined as more jobs became available locally but it may again be on the increase now that village construction jobs are in short supply because of greatly reduced Borough capital improvements program spending.

TABLE 76
 MAJOR EMPLOYERS BY SECTOR*
 POINT HOPE
 JUNE 1980

<u>Employment Sector and Employers</u>	<u>Number of Employees</u>
Mining	6
Contract Construction	35
Tigara Construction	(35)
Transportation, Communication and Public Utilities	3
Trade	7
Village Store (Tigara Corporation)	(7)
Finance, Insurance and Real Estate	11
Tigara Corporation	(11)
Services	2
Government	
Federal Government	2
State Government	3
Local Government	55
North Slope Borough general government	(17)
North Slope Borough construction	(0)
North Slope Borough School District	(36)
<u>TOTAL</u>	<u>124</u>

* Major employers defined as having at least 5 employees.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

Source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 75

COMPOSITION OF EMPLOYMENT BY RACE AND SEX*
 POINT HOPE
 JUNE 1980

Employment Sector	Alaska Native			Non-Native			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mining	6	0	6	0	0	0	6	0	6
Contract Construction	33	2	35	0	0	0	33	2	35
Transportation, communication and Public Utilities	1	0	1	0	0	0	1	0	1
Trade	2	3	5	2	0	2	4	3	7
Finance, Insurance and Real Estate	8	2	10	0	1	1	8	3	11
Services	1	1	2	0	0	0	1	1	2
Government									
Federal	2	0	2	0	0	0	2	0	2
State	0	0	0	0	0	0	0	0	0
Local	18	20	38	13	6	19	31	26	57
Construction	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Non-Construction	(18)	(20)	(38)	(13)	(6)	(19)	(31)	(26)	(57)
TOTAL	72	30	102	15	7	22	87	37	124

* Employment figures exclude 22 Alaska Natives (10 males and 12 females) who listed various forms of assistance, primarily Social Security, as their major source of income. Employment figures also exclude 151 Alaska Natives (71 males and 80 females) and 5 non-Natives (all females) aged 16 and over for whom no employment information was provided or who claimed to be unemployed.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 78
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
 POINT HOPE

Agriculture, Forestry and Fishing		<u>0.0</u>
Mining		<u>3.0</u>
Pingo		3.0
Contract Construction		<u>38.0</u>
Busse11 Electric		5.0
Olympic Constructors and subcontractors		1.5
Tikigaq Construction (fire station)		7.0
Tikigaq Construction (12 houses)		20.0
Arctic Whitney		4.5
Manufacturing		<u>0.0</u>
Transportation, Communication and Public Utilities		<u>0.0</u>
Trade		<u>9.0</u>
Point Hope Store (Tigara Corporation)		9.0
Finance, Insurance and Real Estate		<u>7.0</u>
Tigara Corporation		7.0
Services		<u>5.5</u>
Busse11 Electric (camp operation)		3.5
Tigara Corporation (hotel operation)		1.0
Episcopal Church		1.0
Government		<u>50.0</u>
Federal		1.0
(Post Office)	(1.0)	
State		0.0
Local		49.0
(North Slope Borough School District)	(35.0)	
(North Slope Borough)	(14.0)*	
<u>TOTAL</u>		<u>112.5</u>

* North Slope Borough employment included Public Works Department - 2.5; and Public Utilities Department - 11.5. In 1982, North Slope Borough CIP projects in Point Hope were contracted out, primarily to the Tikigaq Corporation, a subsidiary of the Tigara Corporation.

Source: Alaska Consultants, Inc.

TABLE 79

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1980

<u>Industry Classification</u>	<u>Jan-Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	
Mining	0	0	0	0	0	0	0	0	0	0	0	
Construction	0	0	0	0	0	0	0	0	0	0	0	
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	
Services	0	0	0	0	0	0	*	*	*	*	*	
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	
Government												
Federal	82	72	81	80	81	'79	83	80	66	84	75	75
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	3	2	2	1	1	1	1	1	1	3	0	0
<u>TOTAL</u>	<u>161</u>	<u>154</u>	<u>137</u>	<u>*</u>	<u>*</u>	<u>*</u>	<u>130</u>	<u>119</u>	<u>103</u>	<u>122</u>	<u>105</u>	<u>113</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source : Alaska Department of Labor.

TABLE 80

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	*	*	*	*	*	0	0	0
Government												
Federal	81	75	73	72	70	65	72	72	62	73	74	70
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	2	4	4	4	3	27	6	4	4	11	7	8
<u>TOTAL</u>	<u>127</u>	<u>117</u>	<u>106</u>	<u>103</u>	98	<u>116</u>	<u>115</u>	<u>110</u>	94	<u>108</u>	<u>106</u>	<u>104</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source: Alaska Department of Labor.

TABLE 81

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	*	*	*	0	0	0	0	0	0	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	67	63	66	62	64	64	65	64	60	65	62	64
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	5	3	3	5	4	6	4	5	2	7	4	10
<u>TOTAL</u>	<u>102</u>	<u>92</u>	<u>92</u>	<u>90</u>	<u>93</u>	<u>99</u>	<u>90</u>	<u>95</u>	<u>89</u>	<u>108</u>	<u>88</u>	<u>103</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source : Alaska Department of Labor.

TABLE 82

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	61	64	79	69	79	71	68	64	58	36	36	32
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	2	2	2	3	2	1	2	2	2	4	3	4
<u>TOTAL</u>	<u>90</u>	<u>92</u>	<u>112</u>	<u>101</u>	<u>107</u>	<u>104</u>	<u>101</u>	<u>87</u>	<u>86</u>	<u>63</u>	<u>61</u>	<u>65</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source : Alaska Department of Labor.

TABLE 83

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1984

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	@1J-	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	32	37	31	35	35	40	36	38	34	36	37	37
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	5	1	3	2	3	4	5	4	4	3	9	10
<u>TOTAL</u>	<u>64</u>	<u>65</u>	<u>61</u>	<u>69</u>	<u>70</u>	<u>76</u>	<u>70</u>	<u>73</u>	<u>71</u>	<u>65</u>	<u>78</u>	<u>79</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source: Alaska Department of Labor.

TABLE 84

COVERED INDUSTRY EMPLOYMENT
POINT HOPE AREA**
1985

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	*	*	*	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	40	36	25	24	23	22	22	23	20	21	22	19
state	0	0	0	0	0	0	0	0	0	0	0	0
Local	8	3	3	3	4	5	4	5	2	2	2	3
<u>TOTAL</u>	81	69	61	59	60	53	55	55	50	49	49	47

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source: Alaska Department of Labor.

TABLE 85

COVERED INDUSTRY% EMPLOYMENT
POINT HOPE AREA**
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0	0	0	0	0	0
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	0	0	0
Services	0	0	0	0	0	0	*	*	*	*	*	*
Miscellaneous	0	0	0	*	*	*	0	0	0	0	0	0
Government												
Federal	19	20	20	23	22	21	21	24	26	26	26	24
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	3	3	4	10	8	16	11	9	8	15	11	9
<u>TOTAL</u>	<u>52</u>	<u>51</u>	<u>52</u>	<u>62</u>	<u>59</u>	<u>70</u>	<u>68</u>	<u>70</u>	<u>69</u>	<u>-137</u>	<u>125</u>	<u>131</u>

* Figures withheld to comply with disclosure regulations.

** Point Hope area also includes Cape Lisburne.

source: Alaska Department of Labor.

WAINWRIGHT

A. PAST POPULATION TRENDS

Wainwright is not a traditional village site, although the general area had long been inhabited. **Froelich** Rainey estimated the aboriginal population of Alaska's arctic (between Kotzebue Sound and Demarcation Point) to be around 10,000 in 1850. However, by 1900 the population had fallen to around 3,000 due primarily to disease on the coast and a shortage of caribou in the interior.

The reliability of early censuses on the North Slope is questionable due to the difficulties associated with locating nomadic populations in a vast and physically inhospitable region. As a result, it is not possible to infer demographic trends from the results with any assurance of accuracy.

The 1880 Census counted a total of 3,004 persons in the Arctic Division (between Cape Prince of Wales and the **Colville** River), including 800 living in interior villages. Along the Arctic coast between Point Lay and Barrow, a total of 748 Eskimos were counted in 9 settlements (with Noona-agamute being the closest to the present community of **Wainwright**) and another 150 were counted in interior villages on the Kuk River, described as follows:

<u>Settlement</u>	<u>Location</u>	<u>Population</u>
Point Lay	Point Lay	30
Otok-kok	Icy Cape	50
Kolumatourok	Arctic Ocean	45
Noons-agamute	Arctic Ocean	74
Ootkaiowik	Arctic Ocean	55
Pinoshuragin	Arctic Ocean	29

Ootiwakh	Arctic Ocean	225
Refuge Inlet	Arctic Ocean	40
Kokmullit	Point Barrow	200
Killaimute villages	Kok River	150
<u>Total</u>		<u>898</u>

In 1882, Lieutenant Ray counted only 410 Eskimos between **Wainwright Inlet** and Barrow, including **80** persons (10 families) on **Wainwright Inlet** and another 50 (8 families) at **Sidaru**, southwest of Point **Belcher**. However, this count apparently did not include inland Eskimos living along the upper reaches of the Kuk, Utukok and other rivers at the time.

The 1890 Census counted a total of 3,222 persons in the Arctic District (covering a slightly larger area than that of the 1880 Census as it also included the south side of the Seward Peninsula). However, despite the presence of 144 non-Natives (including the crew of the whaling vessel **Balaena**), the **total** number of persons recorded as living in the area between Point Lay and Barrow was **less** than that counted in the area in 1880.

<u>Settlement</u>	<u>Whites</u>		<u>Indians</u>		<u>Other</u>		<u>Total</u>	
	Male	Female	Male	Female	Male	Female	Male	Female
Point Lay	0	0	45	32	0	0	45	32
Icy Cape	0	0	32	25	0	0	32	25
Wainwright Inlet	0	0	38	34	0	0	38	34
Point Belcher	59	0	17	21	17	0	93	21
Atnik	0	0	18	16	0	0	18	16
Sea Horse Island	2	0	8	5	0	0	10	5
Cape Smythe	46	0	92	97	11	0	149	97
Point Barrow	1	0	82	61	8	0	91	61
<u>Total</u>	<u>108</u>	<u>0</u>	<u>332</u>	<u>291</u>	<u>36</u>	<u>0</u>	<u>476</u>	<u>291</u>

TABLE 86
 POPULATION TRENDS
WAINWRIGHT
 1890 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1890	72*		
1920	99	37.5**	
1929	197	99.0	
1939	341	73.1	
1950	227	-33.4	
1960	253	11.5	
1970	315	24.5	
1980	405	28.6	
1981	410		1.2
1982	436		6.3
1983	483		10.8
1984	507		5.0
1985	508		0.2

* Population listed by 1890 Census for **Wainwright** Inlet.
 ** Population **increase** over 30-year period, **1890-1920**. Although the modern village of **Wainwright** was founded in 1904, it was not listed by the 1910 Census.

Sources: U. S. Census (1890 - 1980 figures].
 Alaska Department of Labor (1981 - 1985 figures}.

TABLE 87
 POPULATION ESTIMATES
WAINWRIGHT
 1882 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1882		80*	Ray (Milan, 1964)
1890	72*		
1919		137	School Census (Milan, 1978)
1920 1924	99	168	Andrews, 1939 - includes 3 whites
1929	197		
1939	341		
1940		392	School Census (Milan, 1964)
1941		343	School Census (Milan, 1964)
1944		341	School Census - includes 3 whites (Luton, 1985)
1949		295 300	School Census (Milan, 1964) Alaska Development Board
1950	227		
1954		227	School Census (Milan, 1964)
1955		232	Milan, 1964 - includes 6 whites
1957		216	Ray, 1959
1960	253		
1962		265	Local estimate filed with city incorporation petition
1965		284	Bane, n.d. (Luton, 1985) - includes 4 whites
1967		307	Bureau of Indian Affairs - includes 7 whites
1967		318	Federal Field Committee - includes 8 whites
1968		315	Milan, 1970 - includes 7 whites
1968		290	Alaska Area Native Health Service
1969		290	Federal Field Committee - includes 5 whites

1969		302	Northwest Economic Development and Planning Board - Natives only
1970	315	300	Local estimate - includes 9 whites
1970		337	Brosted, 1975 - includes 6 whites (Dee)
1974		354	North Slope Borough (Jan)
1975		341	North Slope Borough (July)
1975		423	U. S. Census Bureau
1976		357	North Slope Borough (July)
1976		454	U. S. Census Bureau
1977		379	Alaska Consultants, Inc. - includes 14 whites
1977		398	North Slope Borough (July)
1978		429	North Slope Borough (July)
1979		425	North Slope Borough
1980	405	395	North Slope Housing Survey
1981	410**	410	North Slope Borough (July)
1982	436**	405	U. S. Census Bureau, 1984
1982		465	North Slope Borough (July)
1983	483**	483	North Slope Borough (July)
1984	507**	514	Dept. Community/Regional Aff.
1984		494	North Slope Borough (July)
1985	508**	507	Dept. Community/Regional Aff.
1986		549	Dept. Community/Regional Aff.
		450	Alaska Area Native Health Service - Natives only
1987		542	Dept. Community/Regional Aff.

* Population listed for Wainwright Inlet.

** Alaska Department of Labor estimates derived using U.S. Census methodology. Where these figures are the same as Borough estimates, the Department accepted local censuses undertaken by the North Slope Borough.

Sources: U.S. Census (1890 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

The impact of whaling activities on settlement patterns on the North Slope was noted by the 1890 Census:

"The coast natives abandon their winter houses as soon as the first sign of thaw is visible, erecting tents at convenient points along the coast where seals can be shot amid the shore and ground ice, and there await the arrival of vessels whose masters are known to be inveterate traders. Off Point Lay, at Icy cape, **Wainwright** inlet, and Point **Belcher** are the points of rendezvous for both the natives and ships. Quite a motley gathering of clans can be found at these encampments. . ."

Milan (1978) quoted Sheldon Jackson's 1894 description of people in the **Wainwright** area, as follows:

"Their original homes were along the sea coast from **Wainwright Inlet** to Point Lay, but disease and mortality reduced their numbers. By the process of intermarriage they have become closely allied to and assimilated in language and culture with the inland **people** . . . From Point Lay south to Icy Cape north, and the **riverine** districts, **Colville** and **Ikpikpun**, to the eastwards, there is a nomadic tribe composed of a mixture of coast natives and inland people, styling themselves as **Otookachahmutes**."

Neither the 1900 nor the **1910** censuses list the **Wainwright** area specifically. However, this does not necessarily mean that people here were not counted since the total population listed for the census division is much larger than that listed for individual communities. The present site of **Wainwright** was reportedly established in **1904** because ice conditions made it a convenient place for school construction materials to be offloaded. The school, in turn, attracted permanent settlement from inland and coastal areas in the vicinity.

The 1920 Census counted a total of 658 persons in the Barrow district (including Barrow, Point Barrow and **Wainwright** villages), of whom 99 were counted at **Wainwright** and 416 at Barrow/Point Barrow. No population was listed for Atanik although this location was mentioned by Richards (1949)

in 1924-25. It should also be noted that the 1920 Census figure for **Wainwright** was also significantly less than local population counts in 1919 and 1924.

By the 1930 Census, **Wainwright** had a population of 197 and had become firmly established as a permanent settlement. Despite the fact that it was not generally considered to be a good location for whaling, the community's convenience for trapping and the harvesting of other subsistence resources, the availability of coal for heating, and reindeer herding activities served to attract people here from the surrounding region. Migration into the village is documented by Milan's 1955 village census. Of ~~the~~ 74 residents then living in **Wainwright** who were born before 1930, only 30 had been born in the immediate **Wainwright** area, with the remaining 44 persons listing locations across a wide area between **Wrangel** Island and Teller to points east of Barrow, as well as inland sites.

Wainwright continued to grow during the 1930s even though the 1929 stock market crash depressed fur prices to a point where trapping was no longer economic. According to Chance (1966), North Slope Eskimos returned to a largely subsistence lifestyle during this period and the locally available coal supplies may have been a significant positive factor in **Wainwright's** favor. The 341 persons counted here by the 1939 Census represented a 73.1 percent increase over the number counted in 1930. The 1939 Census also listed another 19 persons at **Atanik**, plus 15 at Beard (**Peard?**) Bay.

Between 1939 and **1950**, however, **Wainwright's** population declined by one-third, mostly a result of out-migration. Similar rates of population decline were also reported for **Atqasuk** and Point Lay and the original village of **Nuiqsut** was abandoned as a year-round settlement during this period. A few residents were drafted into the military during World War *II*, although half of the volunteers on the North Slope were reportedly medically unfit. However, most of the out-migration was **related** to the Navy's exploration program in the then Naval Petroleum Reserve **No. 4** between 1944 and **1953**. These efforts included construction of a **l**arge camp at Barrow and the hiring of Eskimo residents, with preference given to veterans. According to Chance, the availability of jobs attracted Eskimos from as far away as Point Hope and **Aklavik** (in Canada) to Barrow. At about the same time, the U.S. Coast and Geodetic Survey began an extensive mapping program in the region and this activity also enabled Eskimos in Barrow to obtain jobs as surveying assistants and guides.

The 1950 Census counted 227 persons at **Wainwright**. The only other settlements in the vicinity by this time were **Atqasuk** (then called **Tikikluk** with 49 persons) and Point Lay (with 75 persons, a drop from the **117** counted there in 1939). During the 1950s, **Wainwright's** population reversed some of the decline of the previous decade and grew slowly (confirmed by Milan's 1955 village count of 232 persons) to 253 by 1960, an increase of 11.5 percent. The village continued to lose some residents due to out-migration during this period but to a **lesser** degree than in the 1940s. Some of this out-migration derived from the U.S. Public Health Service's intensive tuberculosis program initiated during the 1950s which

resulted in many young Eskimos from **Wainwright** and other North Slope villages being shipped out of the region to sanitariums as far south as the State of Washington. Construction of the DEW Line system, including the nearby LIZ-3 station, took place during the 1950s and provided employment opportunities for some **Wainwright** residents.

Between 1960 and 1970, **Wainwright's** population grew by 24.5 percent to 315 although this number was still less than that counted here in 1939. Unlike the nearby communities of Point Lay and **Atkasuk** which were no longer occupied as year-round settlements by 1970, **Wainwright** survived. Nevertheless, according to Chance, almost 100 residents left the community permanently between World War *II* and 1962. Some out-migration continued. Milan (1970) noted that between 1955 and 1968, two complete families had moved out to Barrow and one to Point Lay, while three complete families had moved into the community from the **Meade** River, Point Lay and Fairbanks. In the late 1960s, out-migration appeared to exceed in-migration, as indicated by the Alaska State Housing Authority (May 1970) using Bureau of Indian Affairs local census data.

<u>Year</u>	<u>Births</u>	<u>Deaths</u>	<u>Moved Out</u>	<u>Moved In</u>
1966	9	3	9	4
1967	9	1	5	1
1968	7	2	10	4
1969	3	4	14	9
<u>Total</u>	<u>28</u>	<u>10</u>	<u>38</u>	<u>18</u>

The 1970s marked a period of major change in **Wainwright** and other North Slope communities as a result of the passage of the Alaska Native Claims Settlement Act in 1971 and formation of the North Slope Borough in 1972.

The re-settlement of three traditional villages (**Atqasuk**, Point Lay and **Nuiqsut**) resulted in some out-migration of **Wainwright** families formerly from those villages. However, Borough spending in the villages greatly increased the number of permanent positions and temporary construction jobs available to local residents. This, in turn, encouraged young people who might otherwise have left the community to remain. Some population growth also accompanied the initiation of a **local** high school program which resulted in a significant increase in the number of whites in the village. **Wainwright** grew **28.6** percent during the **1970** to **1980** decade, finally surpassing the number of people living here in **1939**.

Borough capital improvement program spending greatly increased during the early 1980s and this was reflected in a corresponding acceleration in population growth. Using Department of Labor estimates, the community grew 25.4 percent between 1980 and 1985. However, with the decline in Borough capital improvement program spending since 1984, it appears likely that the period of rapid population growth has come to an end and that some out-migration may now be taking place.

B. POPULATION COMPOSITION

The outstanding feature of **Wainwright's** population is that this is a predominantly Eskimo community. Historically, the only non-Natives living in **Wainwright** have been teachers and an occasional missionary or trader. This is still essentially true although the numbers have expanded considerably from about 3 persons from the 1920s through the 40s, 6 or 7

in the 1950s and 1960s, 8 at the time of the 1970 Census, **14** in the mid-1970s to 33 counted by both the 1980 Census and the 1980 North Slope Borough housing survey. In 1970, Alaska Natives made up 97.5 percent of the community's population. Despite a substantial increase in the number of non-Natives between 1970 and 1980, Alaska Natives still accounted for **91.9** percent of **Wainwright's** residents at the time of the 1980 Census. The increased number of non-Natives was primarily due to the provision of more comprehensive education services, including the addition of a high school program, plus other specialized Borough services such as law enforcement.

Several detailed population studies have been conducted in Wainwright, including two by Milan (in 1955 and 1968) and two by Alaska Consultants, Inc. (in 1977 and 1980) as well as U.S. Census counts. Using these data, the age and sex characteristics of Wainwright's population were reviewed to determine what, if any, changes had occurred during that 25-year period.

The population characteristics of **Wainwright's** Alaska Native and non-Native residents are strikingly dissimilar. Although the number of non-Natives has increased significantly over the past few years, the age composition and male to female ratios have remained essentially the same. The typical white family here is a married teacher couple aged between 25 and 40 who have one or two young children (i.e. **pre-high school**) and who remain in the community for less than 5 years. Non-Native males typically outnumber non-Native females (by a 57.6 to 42.4 percent ratio in 1980) because some male teachers are unmarried.

Unlike the non-Native population which had a 1980 median age of 29.9 according to the Census, Wainwright's Native population is young. In 1955, Milan found the median age of Native males here to be 19.6 and that of females to be 19.2. In 1968, Milan found the median age of Native males in the community to be virtually unchanged at 19.5, but that of females had declined dramatically to 14.2, apparently due to **an** out-migration of females in their late teens and **early** twenties. The **1970** Census found the median age of Native males in **Wainwright** to be **18.0** and that of females to be **15.4**, confirming Milan's findings. Alaska Consultants, Inc. **1977** census found the median age of both sexes had increased, mainly because there were significantly fewer children under the age of **10** than those aged between 10 and 20. The median age of Alaska Native males in 1977 was 20.8 and that of females was 18.5.

The 1980 Census indicated that the trend toward a higher median age was continuing, with the median being 22.4 for Native males and **21.1** for females. However, a phenomenon which had begun to be apparent in 1977 and was even more noticeable in 1980 was a resurgence in the number of children under the age of 5, presumably because larger numbers of young adults were remaining in the village.

The 1980 North Slope Borough housing survey found that **Wainwright's** overall population was younger than that of any other village in the region except for Point Hope. However, when non-Natives were excluded, the median age of the population was slightly above Alaska Native medians for all North Slope Borough villages (22.6 for males and 19.8 for females) at that time. **It**

should be noted, however, that the median ages of male and female **Wainwright** residents were well below those of the State (26.1 for males and 26.3 for females) and the country as a whole (28.8 for males and 31.3 for females) in 1980.

A closer look at the age breakdown of **Wainwright's** population as measured by the 1980 housing survey indicates that there was a very high proportion of children in the very young age brackets. Children under the age of 5 accounted for 14.4 percent of the community's population in **1980**, a higher proportion than any other North Slope village except for Anaktuvuk Pass and Point Hope. A July 1982 village census found that this age range accounted for an even greater 16.4 percent of the community's population, indicating that young people in their prime childbearing years were remaining in **Wainwright**.

The 1980 housing survey also found a high proportion of **Wainwright's** population to be in the 15 to 19 (12 percent) and the 20 to 24 (13.6 percent) age ranges. The July 1982 Borough census found that this was still true (11.8 percent in the 15 to 19 age group and 12.6 percent in the 20 to 24 age range) although to a slightly lesser degree. The extent to which people in these age groups choose to remain in **Wainwright** will determine the community's future growth. In turn, these decisions are likely to be influenced by the availability of jobs in the village.

According to the 1980 Census, males in **Wainwright** outnumbered females by 56 to 44 percent. Similar results were reported by the 1980 North Slope

Borough housing survey. Although the disparity between the sexes was most noticeable among non-Natives, it was also true of Wainwright's Alaska Native population where males outnumbered females by a 55 to a 45 percent margin. In part, this disparity between the sexes in the Native population is because there is a significant number of bachelors in the community between the ages of 30 and 50, presumably the result of an earlier out-migration of females. While Wainwright's male to female ratio was similar to that of the State (53 percent males to 47 percent females) in 1980, it was unlike that of the nation as a whole where females outnumber males.

Not surprisingly, given the high proportion of Wainwright's population which is in the younger age groups, the community has a high number of persons per household when compared with State and national norms. The 1980 housing survey found the average household size in Wainwright to be 4.2 persons, with Alaska Native households in the community being a slightly larger 4.4 persons. This is well above the 2.93 and 2.75 persons per household for the State and the nation as recorded by the 1980 Census.

Comparisons of household size over time at Wainwright are misleading. While family sizes have doubtless declined, housing constructed in the community by the Alaska State Housing Authority, the North Slope Borough and others has resulted in the dispersal of families in a manner more akin to Western norms. Between 1955 and 1980, the number of households increased almost 120 percent (assuming there were 2 non-Native households in 1955), whereas the village's total population increased by about 70 percent over the same period.

Before the advent of government housing programs, overcrowded housing conditions in **Wainwright** were the norm. Milan (1964) counted 226 Alaska Natives in 41 households in 1955, for an average of 5.5 persons per household; while Brosted counted 331 Alaska Natives in 52 households in December 1970 for an even more extreme 6.4 persons per household. However, by the time of Alaska Consultants, **Inc.'s** 1977 survey, the Alaska State Housing Authority built 25 housing units in **Wainwright**, 6 persons had used Veterans Loans to build single family homes and the North Slope Borough had built two units of teacher housing. The 1977 survey counted 379 persons in 78 households (including 69 headed by Alaska Natives). For households headed by Alaska Natives, the 1977 survey found the average household size had declined to 5.1 persons, while for those headed by non-Natives, the average household size was 2.9.

By the time of the 1980 North Slope Borough housing survey, 58 of the community's 93 occupied housing units had been built by the Alaska State Housing Authority, the North Slope Borough or through Veterans Loans. This new construction was the major factor in the further decline of household populations.

The continuing influence of strong family and other ties among today's **Wainwright** residents is reflected in the stability of the community's Eskimo population. According to the 1980 North Slope Borough housing survey, close to 87 percent of the community's Alaska Native heads of household had lived here since before 1960. By contrast, only 2 non-Native

TABLE 88

POPULATION COMPOSITION*
WAINWRIGHT
JUNE 1955

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>T o t a l</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	15	16	31						
5 - 9	14	12	26						
10 - 14	22	12	34						
15 - 19	13	13	26						
20 - 24	17	10	27						
25 - 29	6	8	14						
30 - 34	7	6	13						
35 - 39	3	2	5						
40 - 44	5	7	12						
45 - 49	4	4	8						
50 - 54	3	3	6						
55 - 59	6	0	6						
60 - 64	3	1	4						
65 - 69	3	4	7						
70 - 74	2	0	2						
75 and over	2	3	5						
<u>TOTAL</u>	<u>125</u>	<u>101</u>	<u>226</u>						
<u>Median Age</u>	<u>19.6</u>	<u>19.2</u>	<u>19.3</u>						

* Figures exclude 6 white persons for whom no age information was provided.

source : Frederick A. Milan, 1964.

TABLE 89
 POPULATION COMPOSITION*
 WAINWRIGHT
 JULY 1968

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 5 years	23	16	39						
5 - 9	27	32	59						
10 - 14	20	24	44						
15 - 19	16	13	29						
20 - 24	18	8	26						
25 - 29	10	6	16						
30 - 34	10	10	20						
35 - 39	8	9	17						
40 - 44	7	5	12						
45 - 49	6	0	6						
50 - 54	3	4	7						
55 - 59	2	4	6						
60 - 64	8	5	13						
65 - 69	3	0	3						
70 - 74	4	1	5						
75 and over	3	2	5						
<u>TOTAL</u>	<u>168</u>	<u>139</u>	<u>307</u>						
<u>Median Age</u>	<u>19.5</u>	<u>14.6</u>	<u>17.1</u>						

* Figures exclude 1 Native male and 7 white persons for whom no age information was provided.

Source: Frederick A. Milan, 1970.

TABLE 90

POPULATION COMPOSITION
WAINWRIGHT
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	18	20	38	0	1	1	18	21	39
5 - 9	55)	52)	107)	0)	0)	0)	27	21	48
10 - 14	)	)	)	)	)	)	28	31	59
15 - 19	(28	(26	(54	(1	(1	(2	19	19	38
20 - 24	(	(	(	(	(	(	10	8	18
25 - 29	17)	14)	31)	1)	1)	2)	5	5	10
30 - 34	)	)	)	)	)	)	13	10	23
35 - 39	(18	(16	(34	(0	(1	(1	10	8	18
40 - 44	(	(	(	(	(	(	8	9	17
45 - 49	9)	6)	15)	0)	0)	0)	6	2	8
50 - 54	)	)	)	)	)	)	3	4	7
55 - 59	(7	(8	(15	(1	(1	(2	3	5	8
60 - 64	(	(	(	(	(	(	5	4	9
65 - 69	)	)	)	)	)	)	6	2	8
70 - 74	10)	3)	13)	0)	0)	0)	4	0	4
75 and over	)	)	)	)	)	)	0	1	1
<u>TOTAL</u>	<u>162</u>	<u>145</u>	<u>307</u>	<u>3</u>	<u>5</u>	<u>8</u>	<u>165</u>	<u>150</u>	<u>315</u>
<u>Median Age</u>	<u>18.0</u>	<u>15.4</u>	<u>16.6</u>	<u>30.0</u>	<u>30.0</u>	<u>32.5</u>	<u>17.6</u>	<u>15.7</u>	<u>16.6</u>

source: *Us. Census.*

TABLE 91
POPULATION COMPOSITION*
WAINWRIGHT
APRIL 1977

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
under 5 years	18	23	41	2	1	3	20	24	44
5 - 9	17	10	27	1	1	2	18	11	29
10 - 14	34	28	62	1	0	1	35	28	63
15 - 19	25	29	54	0	0	0	25	29	54
20 - 24	13	15	28	0	1	1	13	16	29
25 - 29	18	11	29	5	3	8	23	14	37
30 - 34	12	6	18	2	3	5	14	9	23
35 - 39	11	9	20	1	0	1	12	9	21
40 - 44	11	9	20	1	0	1	12	9	21
45 - 49	8	7	15	1	1	2	9	8	17
50 - 54	10	3	13	0	0	0	10	3	13
55 - 59	3	1	4	0	0	0	3	1	4
60 - 64	3	4	7	0	0	0	3	4	7
65 - 69	4	4	8	0	0	0	4	4	8
70 - 74	1	2	3	0	0	0	1	2	3
75 and over	5	1	6	0	0	0	5	1	6
<u>TOTAL</u>	<u>193</u>	<u>162</u>	<u>355</u>	<u>14</u>	<u>10</u>	<u>24</u>	<u>207</u>	<u>172</u>	<u>379</u>
<u>Median Age</u>	<u>20.8</u>	<u>18.5</u>	<u>19.4</u>	<u>28.5</u>	<u>29.2</u>	<u>28.4</u>	<u>22.3</u>	<u>19.1</u>	<u>19.9</u>

* Figures exclude 2 Native persons for whom no age information was available.

source: Alaska Consultants, Inc.

TABLE 92

POPULATION COMPOSITION
WAINWRIGHT
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	31	24	55	2	1	3	33	25	58
5 - 9	17	16	33	4	1	5	21	17	38
10 - 14	20	16	36	2	1	3	22	17	39
15 - 19	25	21	46	1	0	1	26	21	47
20 - 24	24	25	49	0	1	1	24	26	50
25 - 29	16	16	32	2	2	4	18	18	36
30 - 34	15	6	21	3	6	9	18	12	30
35 - 39	9	4	13	3	1	4	12	5	17
40 - 44	10	10	20	2	1	3	12	11	23
45 - 49	14	8	22	0	0	0	14	8	22
50 - 54	8	5	13	0	0	0	8	5	13
55 - 59	6	2	8	0	0	0	6	2	8
60 - 64	2	3	5	0	0	0	2	3	5
65 - 69	2	4	6	0	0	0	2	4	6
70 - 74	4	2	6	0	0	0	4	2	6
75 and over	5	2	7	0	0	0	5	2	7
<u>TOTAL</u>	<u>208</u>	<u>164</u>	<u>372</u>	<u>19</u>	<u>14</u>	<u>33</u>	<u>227</u>	<u>178</u>	<u>405</u>
<u>Median Age</u>	<u>22.4</u>	<u>21.1</u>	<u>21.5</u>	<u>27.5</u>	<u>31.2</u>	<u>29.9</u>	<u>22.1</u>	<u>21.7</u>	<u>21.9</u>

source: U*S. Census.

TABLE 93
POPULATION COMPOSITION*
WAINWRIGHT
APRIL 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	28	23	51	2	1	3	30	24	54
5 - 9	14	14	28	4	1	5	18	15	33
10 - 14	16	14	30	1	2	3	17	16	33
15 - 19	23	22	45	0	0	0	23	22	45
20 - 24	23	27	50	1	0	1	24	27	51
25 - 29	14	14	28	1	1	2	15	15	30
30 - 34	14	6	20	4	7	11	18	13	31
35 - 39	7	5	12	3	1	4	10	6	16
40 - 44	10	7	17	1	1	2	11	8	19
45 - 49	13	6	19	2	0	2	15	6	21
50 - 54	7	6	13	0	0	0	7	6	13
55 - 59	5	1	6	0	0	0	5	1	6
60 - 64	3	3	6	0	0	0	3	3	6
65 - 69	2	2	4	0	0	0	2	2	4
70 - 74	3	1	4	0	0	0	3	1	4
75 and over	5	3	8	0	0	0	5	3	8
<u>TOTAL</u>	<u>187</u>	<u>154</u>	<u>341</u>	<u>19</u>	<u>14</u>	<u>33</u>	<u>206</u>	<u>168</u>	<u>374</u>
<u>Median Age</u>	<u>22.9</u>	<u>20.7</u>	<u>21.7</u>	<u>31.5</u>	<u>32.0</u>	<u>31.8</u>	<u>23.3</u>	<u>21.2</u>	<u>22.2</u>

* **Figures** exclude a total of 21 persons (10 Alaska Native males, 7 Alaska Native females and 4 non-Native males) for whom no age information was provided. Thus, a total of 395 persons in Wainwright were surveyed by Alaska Consultants, Inc.

source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 94
 PERMANENT FUND DIVIDEND RECIPIENTS
WAINWRIGHT
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		62	62	61
5 - 9			56	69
10 - 14			30	38
15 - 19			35	30
20 - 24			40	55
25 - 29			47	53
30 - 34			39	38
35 - 39			23	26
40 - 44			14	17
45 - 49			21	21
50 - 54			19	22
55 - 59			11	12
60 - 64			7	10
65 - 69			6	3
70 - 74			6	6
75 & over			8	9
Unknown	0	4	0	1
TOTAL	435	436	424	471

Note: 1982 age breakdown: 0-17 - 179; 18-27 - 96; 28-37 - 62; 38-47 - 40; 48-57 - **31**; 58-67 - 13; 68-77 - 11; 78+ - 3; Unknown - 0; Total - 435.

1983 age breakdown: 0-4 - 62; 5-17 - 95; 18-27 - 104; 28-37 - 69; 38-47 - 39; 48-57 - 33; 58-67 - 15; 68-77 - 11; 78+ - 4; Unknown - 4; Total - 436.

Source: Alaska Department of Revenue.

heads of household at that time had lived in the community for more than five years. However, although most of the community's heads of household have lived in **Wainwright** for a long time, there is evidence that young persons, particularly females, may be considerably more mobile.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Wage and salary employment is a comparatively recent phenomenon in **Wainwright**. Traditionally, the people of this area were nomadic hunters and food gatherers, a way of life that was first modified in the late nineteenth century during the commercial whaling era. The whalers were soon followed by educators and missionaries who brought more lasting change since their activities resulted in the sedentarization of Eskimo family groups into more or less permanent settlements.

At about the same time, reindeer were introduced to Alaska by Sheldon Jackson to ensure that adequate food supplies were available to Alaska Natives. This industry became a significant element in **Wainwright's** economy in the early years of this century. Typically, the animals were owned by a few relatively wealthy residents who then hired their relatives as herders. As reported by Milan (1964), **Wainwright** residents owned 2,300 reindeer in three herds in 1918, about 8,000 in four herds in 1924 and about 22,000 reindeer by 1934, but the number of animals decreased rapidly thereafter and today there are no reindeer on the North Slope. Trapping was another early source of cash income for many **Wainwright** residents although the bottom fell out of this industry in the late 1920s with the

onset of the Depression. Local involvement in the trade sector has a long tradition in Wainwright, beginning in about 1918 when a group of villagers pooled funds from trapping to purchase supplies and formed what is today called the **Wainwright** Co-op Store. Government transfer payments in the form of Social Security reportedly (Milan 1964) first became significant sources of cash income in the village in the 1930s and early **1940s**.

Activities associated with exploration in the then **Naval** Petroleum Reserve No. 4 between 1944 and **1953**, and construction of the **DEW** Line system in the 1950s had a major impact on **Wainwright**. Reed (1958) noted:

"All of the natives live largely by hunting, fishing, and trapping. Reindeer herding has practically ceased. During Pet 4 about 80 Eskimos were employed by Arcon and attendant activities such as the Arctic Research Laboratory. The natives were paid the same wages as the whites for similar work, so that substantial cash was known in Barrow village."

Milan (**1964**) also notes regarding the NPR-4 exploration period that:

"Eskimo helpers easily found wage paying jobs and they were employed as tractor drivers, mechanics, boat skippers, and laborers and received standard wages."

Specifically in regard to **Wainwright, Browne** (July 1949) stated:

"The majority of veterans and several other young men of the village have moved to Barrow to work in the village and the Navy installation. Loss of these young men undoubtedly has an adverse effect on the economic development of the community."

Thus, the attraction of well paying jobs in Barrow during this period was the major reason for an out-migration of population from **Wainwright** and other North Slope settlements and for the dramatic growth of Barrow between 1940 and 1950.

In 1955, Milan (1964) described wage and salary employment of Eskimos in **Wainwright** as being those on government salaries (a postmaster, a school janitor and weather observers); other salaried persons (a Presbyterian minister and employees of the Native store); others (2 independently owned stores); and about **10** persons engaged on a construction project which extended from 1954 to 1957, **presumably** related to the DEW Line. However, in terms of estimated total village (excluding whites) income of \$65,600 in 1955, construction work (which contributed about \$40,000) was **by** far the most significant, followed by government subsidies (estimated at \$12,000), other salaries (\$6,600), government salaries (\$5,000) and Native arts and crafts and proceeds from trapping (\$1,000 **each**). The National Guard was also a source of income to some **Wainwright** residents at this time.

A community fact survey conducted for the Bureau of Indian Affairs in the **mid-1960s** noted that non-wage and salary income in the form of hunting and fishing were still the principal activities in **Wainwright**, with coal being mined locally both for personal use and as trade for groceries. Wage and salary employment at that time included two local men employed at the nearby LIZ-3 DEW Line site and a few men **with** temporary part-time jobs building the village's new BIA school. Other sources of employment in the village were the **co-op** Native store, six private locally owned stores and a movie hall. Although many residents had skills in carving and other crafts, almost no craft work had *been* sold in the previous year. The survey also noted that there was little or no opportunity for high school graduates in the village other than hunting and fishing. The BIA school **at** the time had three teachers. It probably also employed at least one local

person in a janitorial capacity. The National Guard would also have been significant in terms of contributing to the income of some village households.

The Alaska State Housing Authority stated in **1970** that there were not more than a dozen Native people steadily employed in the community. It indicated that major sources of employment at that time were the BIA school, the nearby DEW Line site, the post office and two **local** stores. The 21 local National Guard members also received additional income from that source.

During the 1970s, several events impacted on wage and **salary** employment in **Wainwright**. After passage of the Alaska Native Claims Settlement Act in 1971, the **Olgoonik** Corporation became a significant force in the **local** economy, both in terms of direct employment in its office and employment in other activities in which the corporation is involved. Incorporation of the North Slope Borough in July 1972 has had even more significant impacts on the local economy as it resulted in the provision of a wide range of new and expanded government services in the community and, with it, a dramatic increase in the number of village jobs. The selection of **Wainwright** by the U.S. Environmental Protection Agency as one of two sites in Alaska (the other was Emmonak) for a demonstration water and sewage disposal project and completion of the first plant in 1973, further expanded village amenities and provided new employment for village residents, although this facility was later taken over by the North Slope Borough. Finally, according to **Alyeska** Pipeline Service Company records (Alaska Review of

Social and Economic Conditions, February 1978), 14 Alaska Native residents of Wainwright worked at least temporarily on the Trans Alaska Pipeline project at some point between 1974 and 1977.

A measure of the rapidity of economic change which took place in Wainwright can be gauged by comparing counts of employment in the community in 1973 (shortly after the Borough was organized), 1977 (after the Borough was well established but before major capital improvements program construction activity got underway) and in 1982 (when capital improvements program construction activity was at or near its height). Data from the 1980 North Slope Borough housing survey also provides some insight into the components of employment change although these data are not directly comparable with employer-generated information.

In 1973, **Dupere** and Associates (October 1973) noted that there were about 20 persons in the community who were steadily employed (excluding school teachers). They included 2 persons at the EPA utilities plant, 2 maintenance men at the school, 3 persons at the store, a minister, a postmaster and 2 persons working at the nearby LIZ-3 DEW Line site. Another 8 persons employed by the school (4 as teacher aides and 4 with the Headstart program) were described as receiving fairly adequate salaries during the school year. Dupere and Associates also noted that a few residents had obtained periodic seasonal employment outside the village and that 23 villagers were then serving in the local National Guard unit which provided some cash income. The remaining village income was said to have

been derived from subsistence activities and various public assistance programs.

A substantial increase in employment opportunities afforded village residents was apparent in 1977 when Alaska Consultants, Inc. undertook a survey of employment in the village for the North Slope Borough in conjunction with preparation of a comprehensive **plan**. At that time, an equivalent of 57.5 average annual full-time jobs were counted. Most of the increase since **1973** occurred in the finance, insurance and real estate and the government sectors. **In 1977**, the **Olgoonik** Corporation employed 4 persons in its corporate offices (including one person whose salary was paid by the Arctic Slope Regional Corporation) and another **3.5** persons in its tank farm operations (the latter counted as employment in trade). At the government level, 4.5 persons were employed by the Environmental Protection Agency at the utilities plant, while the activities of the North Slope Borough had resulted in a dramatic increase in **local** government employment to an equivalent of 27 full-time jobs. Most of this increase was associated with the school which had been expanded in the 1976-77 school year to include a full high school program and which employed a total of 21 persons, including 10 teachers. The Borough also accounted for another 4.5 jobs, 3.5 of which were associated with the provision of health care services (including 2 doctors temporarily stationed in the village for a year under an agreement with the U.S. Public Health Service). The City of **Wainwright** employed an equivalent of 1.5 persons on a full-time year-round basis. This included a city clerk and two on-call policemen.

Although the results of the 1980 North Slope Borough housing survey are not directly comparable with the 1977 and 1982 employment counts (the data were collected from individuals rather than employers and no attempt was made to **ascertain** if jobs were full-time or permanent), they nevertheless provide further insight into the composition of employment-in the community because the **results** were recorded by race. All but 2 of the 24 non-Native adults then living in **Wainwright** were employed, with 75 percent of those employed working for the North Slope Borough School District and the remainder, except for an Assembly of God minister and an **Olgoonik** Corporation employee, working for contractors then engaged on projects in the community. By contrast, of the village's 232 Alaska Natives aged 16 or over, only 52 percent claimed to be employed. Of the 120 jobs held by Natives, 50 or 42 percent were in Borough construction activities and 25 or 36 percent were in other Borough positions.

In addition to the 1980 housing survey, 1980 Census labor force and employment information for **Wainwright** (including some comparisons with 1970) were examined. Like the housing survey, Census data are collected from individuals rather than employers. Total 1980 employment and labor force participation rate data for **Wainwright** collected by the Census appear to be roughly comparable with those of the 1980 North Slope Borough housing survey. However, the Census' assignment of employment by industry does not accurately reflect the situation in the community at that time, even allowing for differences in industry definition.

A 1982 survey of employment by Alaska Consultants, Inc., also for the North Slope Borough, counted a total of 138.5 jobs on an annual average full-time basis, an increase of slightly more than 140 percent over the number counted in 1977. Essentially all of this growth derived from the North Slope Borough, due both to a growth in services provided and a major increase in capital improvements program expenditures. These latter activities were reflected not only in the government sector but also in contract construction (construction of a fire station and a new elementary school, including a utility wing and a swimming pool were the principal non-force account projects underway in 1982). The contractor on the school project was a joint venture between a private company and the local village corporation. Limited growth in services employment in 1982 was entirely a reflection of camp facilities provided by a private company to serve the ongoing construction activities.

In the government sector, force account capital improvements program activities again accounted for the largest part of growth in employment since 1977, with the gravel dredging program alone employing an estimated annual average full-time equivalent of 13 persons. However, employment at the school had also increased significantly to a total of 29.5 full-time jobs and staffing of Borough utilities and public works operations had risen to a total of 9 and 11.5 full-time jobs respectively. (The Borough assumed responsibility for the EPA plant in 1979). Assumption by the Borough of areawide police powers in 1976 resulted in the stationing of a non-Native Borough public safety officer (sometimes two) in the village after the 1977 employment count.

After 1982, capital improvement program construction activity continued at a high level for another two or three years. Major projects included construction of a new health clinic, warehousing and vehicle storage facilities. However, Borough capital improvement funds are now extremely limited and construction activities are currently well below the level of prior years. (The North Slope Borough noted in its Winter 1985 Economic Profile that Boroughwide capital improvement expenditures for the 1985/86 fiscal year were projected at \$21.4 million, a marked decline from expenditures of \$116.5 million in 1984/85 and \$203 million in 1983/84).

The North Slope Borough has recently published some employment statistics for its member communities in its Economic Profile series, including the following information for **Wainwright**:

	North Slope Borough School District	North Slope Borough General Government	Village Corporation	City Government
Oct. 1985	43	99	14	N/A
June 1986	47	58	14	10
Dec. 1987	45	64	16	8

It is not possible to compare these figures with those counted in the community by Alaska Consultants, Inc. in 1982 since Borough statistics do not purport to equate to average annual year-round employment. However, if the Borough series is maintained in a consistent manner in the future, it could provide a useful barometer of employment change at the community level.

Alaska Department of Labor monthly employment statistics for Wainwright should not be used to assess employment trends in the community since 1980, primarily because these data are seriously flawed. There is no federal employment in Wainwright except for a post office, yet Department of Labor figures indicate the presence of Corps of Engineers personnel in the community between 1980 and 1985. Total employment figures for Wainwright are clearly also in error as they are much too high when the fact that all Borough and Borough School District employment has been included in Barrow, the Borough headquarters, is taken into account. (The local government employment listed is only that for the City of Wainwright.)

A review of the raw data by Department of Labor personnel indicates that a significant number of jobs with a single employer in the transportation, communication and public utilities sector was incorrectly assigned to Wainwright. In the opinion of this author, it is unlikely that total employment in the village averaged much more than 100 persons in 1986 (including Borough and Borough School District employees based in the community).

Even if Alaska Department of Labor statistics for Wainwright had been more accurate, disclosure regulations would have limited their usefulness. Given the decrease in Borough construction activities during the past two years, a field count of employment in Wainwright appears to be the only way in which an accurate picture of current conditions could be obtained.

TABLE 95
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
WAINWRIGHT
 1977

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	0.0	0.0
Contract Construction	3.0	5.2
Manufacturing	2.0	3.5
Transportation, Communication and Public Utilities	0.0	0.0
Trade	11.5	20.0
Finance, Insurance and Real Estate	4.0	7.0
Service	3.0	5.2
Government	34.0	59.1
Federal	(6.5)	(11.3)
State	(0.0)	(0.0)
Local	(27.5)	(47.8)
<u>TOTAL</u>	<u>57.5</u>	<u>100.0</u>

Note: Figures include employment in Wainwright-based jobs only. Several local residents were employed outside town at the LIZ-3 DEW Line Station or in the Prudhoe Bay area.

Source: Alaska Consultants, Inc.

TABLE 96
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
 WAINWRIGHT
 1977

Agriculture, Forestry and Fishing		<u>0.0</u>
Mining		<u>0.0</u>
Contract Construction		<u>3.0</u>
Teacher housing/warm storage building (Borough)		3.0
Manufacturing		<u>2.0</u>
Native arts and crafts		<u>2.0</u>
Transportation, Communication and Public Utilities		<u>0.0</u>
Trade		<u>11.5</u>
Wainwright Co-op Store		<u>5.0</u>
Shooters' Supply		2.0
Emily's		1.0
Olgoonik Corporation tank farm		<u>3.5</u>
Finance, Insurance and Real Estate		<u>4.0</u>
Olgoonik Corporation office		4.0
Services		<u>3.0</u>
Kuk Theater		<u>0.5</u>
Presbyterian Church (minister & part-time janitor)		<u>1.5</u>
Assembly of God Church		<u>1.0</u>
Government		<u>34.0</u>
Federal		6.5
(Post Office)	(1.5)	
(Environmental Protection Agency)	(4.5) *	
(WIC Program)	(0.5)	
State		0.0
Local		27.5
City Clerk	(0.5)	
City Police Officers (2 on call)	(1.0)	
Light Plant	(0.5)	
Health Clinic (2 aides and alternate)	(1.5)	
(2 doctors)	(2.0)	
School (10 teachers and 1 secretary)	(11.0)	
(teacher aides)	(5.0)	
(school cooks)	(2.0)	
(janitorial)	(3.0)	
Village Coordinator	(1.0)	
<u>TOTAL</u>		<u>57.5</u>

* EPA employment included 2 persons at the plant, 2 water truck people and a part-time janitor.

Source: Alaska Consultants, Inc.

TABLE 97
 SELECTED LABOR FORCE DATA
 WAINWRIGHT
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	*	*	0	0	0
Civilian Employed	*	*	84	57	141
Civilian Unemployed	*	*	21	2	23
Not in Labor Force	*	*	43	58	101
Labor Force Participation Rate	*	*	70.0%	50.0%	61.0%
Unemployment Rate: 1980	*	*	20.0%	3.4%	14.0%
1970	*	*	0.0%	0.0%	0.0%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	11	43
Manufacturing	0	2
Transportation	3	7
Communications	0	7
Trade	0	23
Finance, Insurance & Real Estate	0	4
Services	7	45
Public Administration	19	6
Other	0	4
<u>TOTAL</u>	<u>40</u>	<u>141</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 98

COMPOSITION OF EMPLOYMENT BY RACE AND SEX*
WAINWRIGHT
 APRIL 1980

Employment Sector	Alaska Native			Non-Native			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Mining	0	0	0	0	0	0	0	0	0
Contract Construction	0	0	0	4	0	4	4	0	4
Transportation, Communication and Public Utilities	2	0	2	0	0	0	2	0	2
Trade	4	1	5	0	0	0	4	1	5
Finance, Insurance and Real Estate	7	2	9	1	0	1	8	2	10
Services	5	4	9	1	0	1	6	4	10
Government									
Federal	1	1	2	0	0	0	1	1	2
State	0	0	0	0	0	0	0	0	0
IACal	71	22	93	9	9	18	80	31	111
Construction	(46)	(4)	(50)	(0)	(0)	(0)	(46)	(4)	(50)
Non-Construction	(25)	(18)	(43)	(9)	(9)	(18)	(34)	(27)	(61)
<u>TOTAL</u>	90	30	<u>120</u>	<u>15</u>	<u>9</u>	24	<u>105</u>	<u>39</u>	<u>144</u>

* Employment figures exclude 11 Alaska Natives (4 males and 7 females) who listed various forms of assistance, primarily Social Security, as their major source of income. Employment figures also exclude 101 Alaska Natives (37 males and 64 females) and 2 non-Natives (1 male and 1 female) aged 16 and over for whom no employment information was provided or who claimed to be unemployed.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

source : Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 99
 MAJOR EMPLOYERS BY SECTOR*
 MAINWRIGHT
 APRIL 1980

<u>Employment Sector and Employers</u>	<u>Number of Employees</u>
Mining	0
Contract Construction	4
Transportation, Communication and Public Utilities	2
Trade	5
Village Store	(5)
Finance, Insurance and Real Estate	10
Olgoonik Corporation	(10)
Services	10
C E T A	(6)
Government	
Federal Government	2
State Government	0
Local Government	111
North Slope Borough general government	(25)
North Slope Borough construction	(50)
North Slope Borough School District	(33)
<u>TOTAL</u>	<u>144</u>

* Major employers defined as having at least 5 employees.

Note: Employment was not necessarily full-time or permanent. People were asked only to list their employer or major source of income.

Source: Alaska Consultants, Inc. September 1980. North Slope Borough Housing Survey.

TABLE 100
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT
WAINWRIGHT
 1982

<u>Industry Classification</u>	<u>Number</u>	<u>Percent of Total</u>
Agriculture, Forestry and Fishing	0.0	0.0
Mining	0.0	0.0
Contract Construction	40.5	29.2
Manufacturing	0.0	0.0
Transportation, Communication and Public Utilities	3.0	2.2
Trade	15.0	10.8
Finance, Insurance and Real Estate	4.0	2.9
Service	5.0	3.6
Government	71.0	51.3
Federal	(1.5)	(1.1)
State	(0.0)	(0.0)
Local	(69.5)	(50.2)
<u>TOTAL</u>	<u>138.5</u>	100.0

Note: Figures include two local residents employed at the LIZ-3 DEW Line Station but exclude all personnel stationed on-base.

Source: Alaska Consultants, Inc. July 1983. Background for Planning, City of **Wainwright**. Prepared for the North Slope Borough, Anchorage.

TABLE 101
 AVERAGE ANNUAL FULL-TIME EMPLOYMENT BY EMPLOYER
WAINWRIGHT
 1982

Agriculture, Forestry and Fishing		<u>0.0</u>
Mining		<u>0.0</u>
Contract Construction		<u>40.5</u>
Olgoonik Construction		27.0
Halverson		10.0
Blackstock		1.0
Olympic Constructors		0.5
Miscellaneous others		2.0
Manufacturing		<u>0.0</u>
Transportation, Communication and Public Utilities		<u>3.0</u>
DEW Line (local persons only)		2.0
Polar Kab		0.5
Kavik Taxi		0.5
Trade		<u>15.0</u>
P & J Store		1.0
Olgoonik Corporation Store		3.0
Wainwright Cooperative Store		6.0
Shooters Supply		1.0
Olgoonik Corporation tank farm		4.0
Finance, Insurance and Real Estate		<u>4.0</u>
Olgoonik Corporation office		4.0
Services		<u>5.0</u>
PSI (camp operators)		2.0
Presbyterian Church		1.0
Olgoonik Corporation garage		2.0
Government		<u>71.0</u>
Federal		<u>1.5</u>
(Post Office)	(1.5)	
State		0.0
Local		69.5
(City of Wainwright)	(1.5)*	
(North Slope Borough School District)	(29.5)**	
(North Slope Borough)	(38.5)***	
<u>TOTAL</u>		138.5

-
- * City of **Wainwright** employment consisted of a full-time clerk and the Mayor who worked part-time.
 - ** North Slope Borough School District employment consisted of 14 teachers, including a principal and assistant principal; 6 aides; 2 cooks; 6 maintenance personnel, including a plant manager; 1 secretary and 1 part-time night guard.
 - *** North Slope Borough employment consisted of 11.5 Public Works Department-personnel; another 13 Public Works personnel engaged in the gravel dredging program; 9 Utilities Department employees (a total of 16 persons were counted, including 8 temporaries for about 1 month each) with 6 in the power house (including 3 temporaries) and 10 in the water treatment plant (including 5 temporaries); 2 health aides; 1 Housing Department maintenance person; 1 Borough police officer; and a village coordinator.

Source: Alaska Consultants, Inc.

TABLE 102

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1980

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	0	0	0
Construction	*	*	*	*	*	*	*	*	*	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0	0	0	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	15	15	14	15	15	11	9	9	11	14	14	13
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	4	4	5	3	3	3	3	2	3	4	4	4
<u>TOTAL</u>	<u>186</u>	<u>167</u>	<u>172</u>	<u>178</u>	<u>185</u>	<u>207</u>	<u>283</u>	<u>286</u>	<u>361</u>	<u>167</u>	<u>179</u>	<u>181</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 103

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	14	14	14	14	14	11	13	13	12	13	13	12
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	2	2	2	4	2	2	3	4	6	2	2	2
<u>TOTAL</u>	<u>165</u>	<u>164</u>	<u>162</u>	<u>224</u>	<u>221</u>	<u>227</u>	<u>324</u>	<u>325</u>	<u>349</u>	<u>292</u>	<u>282</u>	<u>295</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 104

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	k	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	13	13	12	13	13	11	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	5	3	2	3	3	2	2	2	2	2	3	3
<u>TOTAL</u>	<u>236</u>	<u>234</u>	<u>226</u>	<u>244</u>	<u>268</u>	<u>250</u>	<u>333</u>	<u>345</u>	<u>348</u>	<u>297</u>	<u>262</u>	<u>251</u>

* Figures withheld to comply with disclosure regulations.

Source: Alaska Department of Labor.

TABLE 105

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	0	0	0	0	0	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	2	2	3	3	4	4	3	25	14	3	4	6
<u>TOTAL</u>	<u>176</u>	<u>175</u>	<u>172</u>	<u>192</u>	<u>203</u>	<u>223</u>	<u>296</u>	<u>332</u>	<u>306</u>	<u>216</u>	<u>206</u>	<u>208</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 106

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1984

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	k	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	20	21	21	25	24	29	30	32	32	31	31	31
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	5	5	6	8	9	6	10	9	6	10	8	4
<u>TOTAL</u>	<u>174</u>	<u>169</u>	<u>183</u>	<u>230</u>	<u>233</u>	<u>244</u>	<u>273</u>	<u>272</u>	<u>269</u>	<u>219</u>	<u>224</u>	<u>235</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 107

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1985

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	32	32	33	28	30	31	31	35	33	32	32	32
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	13	5	7	13	5	12	27	16	7	8	7	7
<u>TOTAL</u>	<u>226</u>	<u>210</u>	<u>214</u>	<u>203</u>	<u>199</u>	<u>248</u>	<u>383</u>	<u>413</u>	<u>337</u>	<u>260</u>	<u>217</u>	<u>200</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 108

COVERED INDUSTRY EMPLOYMENT
WAINWRIGHT AREA
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	*	*	*	*	*	*	*	*	*	*	*	*
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	*	*	*	*	*	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	0	0	0	0	0	0	0	0	0	0	0	0
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	33	33	32	34	33	32	34	38	37	36	38	37
State	0	0	0	0	0	0	0	0	0	0	0	0
Local	7	11	12	11	8	8	8	17	16	14	9	12
<u>TOTAL</u>	<u>215</u>	<u>213</u>	<u>236</u>	<u>197</u>	<u>208</u>	<u>216</u>	<u>177</u>	<u>343</u>	<u>251</u>	<u>172</u>	<u>162</u>	<u>154</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

KOTZEBUE

A. PAST POPULATION TRENDS

Burch (1984) divides the Kotzebue Sound region's pre-contact traditional population into ten distinct, relatively autonomous territorial societies or tribes. Burch estimated the regional population at about **3,950** persons in **1800**, with an estimated **375** persons in the immediate Kotzebue area. Even in traditional times, the Kotzebue vicinity was a crossroads for trade between Seward Peninsula and Siberian Eskimos and inland peoples. In spring and summer, the seasonal abundance of **seal, beluga** and salmon drew inland residents to **Sheshalik** northwest and across the sound from Kotzebue spit. This congregation created the occasion for the **Sheshalik** fair which attracted trading visitors from Point Hope and beyond and from **Shishmaref**, **Wales**, **Diomedes** and even Siberia to the south and west.

The explorer Otto von Kotzebue was the first Western visitor to the Kotzebue Sound region in 1816. Western contacts began to intensify after 1850 as arctic whaling flourished. The ensuing era (1850-1897) was marked by increasing contact, trade and employment, first with passing whalers and later, toward the end of the century, with transient gold seekers en route to the Kobuk and Noatak drainages and northern Seward Peninsula prospects.

The population records show a region almost everywhere in decline during this era. Burch vividly terms this era the "period of Destruction" and attributes the decline partly to Western diseases and the out-filtering of

TABLE 109

ESTIMATED POPULATION
TRADITIONAL KOTZEBUE SOUND SOCIETIES
1800 - 1900

District {Traditional Society}	<u>1800</u>	<u>1850</u>	<u>1880</u>	<u>1900</u>
Buckland (Kangigmiut)	300	200	50	25
Goodhope Bay (Pitagmiut)	300	75	50	25
Kivalina (Kivalinigmiut)	300	300	275	50
Kobuk Delta (Kuungmiut)	250	250	200	25
Kotzebue (Qikiqragrunmiut)	375	400	225	100
Lower Noatak (Napaaqtugmiut)	225	225	200	125
Middle Kobuk (Akunigmiut)	375	375	325	100
Selawik (Siilvingmiut)	775	775	725	300
Upper Kobuk (Kuuvaum Kangianigmiut)	500	500	450	300
Noatak (Nuataagmiut)	550	575	600	0
TOTAL	<u>3,950</u>	<u>3,675</u>	<u>3,100</u>	<u>1,050</u>

Source: Burch, 1984,

residents to other regions, partly to the Great Famine of 1881-1883 which depleted a number of Kotzebue Sound villages, including the Kotzebue vicinity. Together, these events ultimately resulted in the virtual depopulation of the Upper Noatak region and the **Kobuk** Delta. By the turn of-the century, the population of the Kotzebue vicinity, and of the region as well, had fallen to barely quarter of its level of a century earlier. Burch puts the regional population as of 1900 at about 1,050 persons and the Kotzebue area population at about 100. Thereafter, the region's population rebounded steadily but the region did not regain its pre-contact population level until around 1970.

Burch marks the arrival of the Society of Friends missionaries at Kotzebue in 1887 as the beginning of the "period of consolidation". The initial establishment of schools, missions and commercial trading posts began a process of sedentarization of the semi-nomadic traditional societies, a process which was accelerated by the collapse of the fur market and reindeer herding in the 1930s. Burch's population estimates and Bureau of Census village population counts both show that Kotzebue was an important but not **pre-eminent** settlement in the region through most of this era.

Kotzebue finally began to emerge as the region's dominant community during **World War II**. Just before the War in **1938**, the hospital, originally built at **Noorvik**, was relocated to Kotzebue. During and shortly after the War, a military station, along with weather, communications, and other aviation support facilities was established. The post-War growth of waterborne commerce accentuated Kotzebue's locational edge as a regional distribution

TABLE 110

POPULATION OF KOTZEBUE REGION VILLAGES
1920 - 1985

<u>Village</u>	<u>1920</u>	<u>1929</u>	<u>1939</u>	<u>1950</u>	<u>1960</u>	<u>1970</u>	<u>1980</u>	<u>1985</u>
Ambl er	--	--	--	--	70	169	192	255
Buckl and	52	104	--	108	87	90	177	248
Candl e	91	85	119	105	103	--	--	--
Deeri ng	73	183	230	174	95	85	150	153
Ki ana	98	118	167	181	253	278	345	392
Kivalina	87	99	98	117	142	188	241	285
Kobuk	--	--	31	38	54	56	62	65
Kotzebue	230	291	372	623	1,290	1,696	2,054	2,633
Noatak	164	212	336	326	275	293	273	330
Noorvi k	281	198	211	248	384	462	492	529
Sel awi k	274	227	239	273	348	429	535	589
Shungnak	95	145	193	141	135	165	202	226
TOTAL	1,445	1,659	1,996	2,334	3,236	3,925	4,723	5,705
Regi on Out- si de Kotzebue	1,215	1,368	1,624	1,711	1,946	2,229	2,669	3,072
Kotzebue as % of Total	15.9%	17.5%	18.6%	26.7%	39.9%	43.2%	43.5%	46.2%

Sources: U.S. Census (1920-1980).
Alaska Department of Labor (1985).

TABLE 111
POPULATION ESTIMATES
KOTZEBUE
1800 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1800		375	Burch
1850		400	Burch
1880	200		
1880		225	Burch
1900		100	Burch
1910	193		
1920	230		
1929	291		
1939	372		
1949		400	Alaska Rural Development Board
1949		495	Bureau of Indian Affairs (Smith, 1966)
1950	623		
1954		820	Woofford (Smith, 1966)
1957		854	Ray, 1959
1959		1,000	Bureau of Indian Affairs (Smith, 1966)
1960	1,290	1,320	Ak. Department of Labor (July)
1965		1,988	Smith, 1966 - July/August household census, includes 400 seasonal migrants
1967		1,740	Federal Field Committee - 1,513 Native; 227 non-Native
1968		1,800	Alaska Area Native Health Service
1969		1,875	Federal Field Committee - 1,750 Native; 125 non-Native
1970	1,696	1,720	Ak. Department of Labor (July)
1975		1,813	U. S. Census Bureau
1976		2,060	U. S. Census Bureau
1980	2,054		
1980	2,080*	2,526	Dept. Community/Regional Affairs
1981	2,250*	2,250	Dept. Community/Regional Affairs
1982		2,463	U. S. Census Bureau (July)
1982	2,470*	2,464	Dept. Community/Regional Affairs

1983	2, 237*	2, 981	Dept. Communi ty/Regi onal Affai rs
1984	2, 503*	2, 981	Dept. Communi ty/Regi onal Affai rs
1985	2, 633*	2, 981	Dept. Communi ty/Regi onal Affai rs
1986		3, 594	Dept. Communi ty/Regi onal Affai rs
1987		3, 594	Dept. Communi ty/Regi onal Affai rs

* Al aska Department of Labor estimates of July 1 populati on derived using U.S. Census methodology. Where these figures are the same as those cited by the Department of Community and Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: U.S. Census (1880 - 1980 figures).
Al aska Department of Labor (1980 - 1985 figures).

TABLE 112
 POPULATION TRENDS
 KOTZEBUE
 1880 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1880	200		
1910	193		
1920	230	19.2	
1930	291	26.5	
1939	372	27.8	
1950	623	67.5	
1960	1,290	107.1	
1970	1,696	31.5	
1980	2,054	21.1	
1981	2,250		9.5
1982	2,470		9.8
1983	2,237		-9.4
1984	2,503		11.9
1985	2,633		5.2

Sources: U.S. Census (1880 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

center for inbound cargo destined for shallow-draft barge shipment to upriver villages. Superior air and marine transportation also made Kotzebue the preferred seat for governmental service and administrative functions at a time when government intervention in rural Alaska was expanding.

Other factors reinforced Kotzebue's locational edge as a transportation center. **Kotzebue** was in the forefront of development for such community improvements as power, telephone, sanitation facilities, housing, superior health care and education. In addition to better living conditions, provision of these facilities and services created an employment base lacking in other villages.

Together, these events and trends stimulated an accelerated burst of post-War migration from the hinterland villages into Kotzebue. In three decades, Kotzebue's share of the region's total population rose from about 19 percent in 1939, to 27 percent in 1950, to 40 percent in 1960, and to 43 percent in 1970. Through this period, Kotzebue's population grew five-fold from 372 (1939 Census) to 1,696 (1970 Census, which we suspect **undercounted actual** population by about 200 persons).

Immigration obviously was the major factor in this accelerated population growth. Smith (1966) estimates that seventy Eskimo families migrated into **Kotzebue** from outlying villages between 1960 and 1965, mostly from Noatak, Point Hope and Noorvik. Her estimate is generally supported by a 1969 community survey (ASHA, 1969) which found that only 34 percent of Native

TABLE 113

ALASKA NATIVE HEADS OF HOUSEHOLD BY PLACE OF BIRTH
KOTZEBUE
1969

<u>Place of Birth</u>	<u>Number</u>	<u>Percent</u>
Kotzebue	69	34%
Noatak	37	18
Point Hope	13	6
Deering	13	6
Noorvik	12	6
Candle	8	4
Buckland	7	3
Kivalina	7	3
Kobuk	4	2
Selawik	3	1
Kiana	2	1
Sub-Total	175	86
Other	29	14
<u>TOTAL</u>	<u>204</u>	<u>100%</u>

Note: Based on ASHA community survey (65 percent sample), December **1969**.

Source: Alaska State Housing Authority, 1971.

heads of household were born in Kotzebue, followed by 18 percent born in Noatak and 6 percent each born in Point Hope, **Deering** and Noorvik. Other observers (**Burch**, 1984; **McNabb**, 1982) concur in this assessment. Post-1970 population data suggest that, for the time being, the population shift from the hinterland villages to Kotzebue has stabilized, with Kotzebue maintaining about 45 percent of the region's total population.

In view of the above data on immigration into **Kotzebue** from its surrounding villages, the findings of the 2(c) Report on residency and **ANCSA** enrollment patterns for Kotzebue are puzzling. According to that study, 6.2 percent of Alaska Natives living in **Kotzebue** were enrolled to another village, a surprisingly low percentage, especially in view of Kotzebue's demonstrated history as a regional center and destination for village immigrants. A possible interpretation is that, for purposes of **ANCSA** enrollment, many villagers now **living** in Kotzebue elected to affiliate with the Kotzebue village corporation rather than with the corporation of their home village.

Other data on mobility patterns suggest a relatively high rate of turnover within Kotzebue's non-Native population. According to the 1980 Census, about 16 percent of **Kotzebue's** population had resided in another state five years previously and 6 percent had lived in another census division in Alaska. Presumably, most of these newcomers to Alaska were non-Natives and part of the governmental bureaucracy. The Census data are roughly comparable with the findings of a 1978 sample survey conducted by **Northrim Associates** (1979) which found that about 16 percent of Kotzebue's residents had lived in the community for five years or less.

TABLE 114
 LENGTH OF RESIDENCE IN KOTZEBUE
 1978

<u>Years</u>	<u>Percent</u>
Less than 1	8.7
1 - 3	15.5
4 - 5	5.6
6 - 10	3.7
11 - 20	21.1
21 or more	45.4
 n = 161	 <u>100.0</u>

Source: **Northrim Associates, Inc.**,
 1979 (per Policy Analysts,
Inc., 1980).

By 1980, the region's total population finally surpassed the pre-contact levels, although the share of the region's population outside of Kotzebue (2,525 persons) was still substantially below the pre-contact level (3,575) estimated by Burch.

Alaska Department of Labor data on the components of population change indicate that, for the Kobuk census division as a whole, natural increase accounts for most of the population growth since 1970. Between 1970 and 1980, natural increase added an estimated 931 residents to the region while migration resulted in an estimated net loss of 148 residents. Between 1980 and 1985, natural increase contributed 708 new residents, while net migration added another 52. Thus, it appears that both natural increase and net migration have been on the upswing.

TABLE 115

COMPONENTS OF POPULATION CHANGE
KOBUK CENSUS DIVISION
1970 - 1985

	Population at End of Period	Population Change	July 1 to July 1				Natural Increase	Net Migrants	Average Annual Rate of Change
			Births	Rate Per 1,000	Deaths	Rate Per 1,000			
1970*	4,048								
1970 - 1980*	4,831	783	1,207	26.4	276	6.8	931	-148 , 1.76	
1980 - 1981	4,965	-65	158	32.7	34	7.0	124	-188 , -1.30	
1981 - 1982	5,177	212	163	32.8	37	7.5	126	86 , 4.18	
1982 - 1983	5,500	323	185	35.7	40	7.7	145	178 , 6.05	
1983 - 1984	5,683	183	201	36.5	39	7.1	162	21 , 3.27	
1984 - 1985	5,790	107	193	33.8	41	7.2	151	-43 , 1.87	
1980 - 1985	5,790	760	899		191		708	52 , 2.81	

* As of April 1.

source: Alaska Department of Labor, Alaska Population Overview, 1985 Estimates.

TABLE 116
 BIRTH RATES
 KOBUK CENSUS DIVISION
1970 - 1980

<u>Year</u>	<u>Rate per 1,000</u>
1970	26.2
1971	24.9
1972	25.1
1973	27.2
1974	24.2
1975	30.4
1976	23.7
1977	24.4
1978	31.4
1979	30.6
1980	30.0

Source: Maniilaq Association, 1984

Other vital statistics for the City of Kotzebue tend to confirm that birth rates and natural increase have recently begun to rise there. For example, the average annual number of resident births during 1977-1979 was 66 compared with 95 during 1983-1985. Both Native and non-Native births increased. While the population counts for the City of Kotzebue are too speculative to make calculation of annual birth rates trustworthy, the increase in absolute number of births is a strong indicator that birth rates are on the rise in Kotzebue as well as in the region.

Since 1980, the population growth estimates provided by the Alaska Department of Labor and City of Kotzebue/Department of Community and Regional Affairs have diverged significantly. The Department of Labor estimates Kotzebue's 1985 population at 2,633 persons, a 28 percent increase over the 1980 Census count. The Department of Community and Regional Affairs estimate for 1985 was 2,981 persons, a 45 percent increase over 1980. For 1986, its estimate was 3,594 persons, a 20 percent+ increase in one year and a cumulative increase of 75 percent in the six years since the 1980 Census. Other contemporary data series tend to corroborate the Department of Labor estimates through 1985. The count of Permanent Fund dividend recipients registered only a slight rise. Average daily school enrollments barely increased between 1980-81 and 1986-87, while final enrollment figures over the same period actually declined. The Alaska Department of Labor figures indicate a 25 percent rise in total covered employment between 1980 and 1986. For these reasons, the Department of Labor's population estimates seem more credible, at least through 1985.

TABLE 117
 BIRTHS, BY RACE OF MOTHER
 KOTZEBUE
 1977 - 1985

<u>Year</u>	<u>Native</u>	<u>Non-Native</u>	<u>Total</u>
1977	57	9	66
1978	61	9	70
1979	46	16	62
1980	52	10	62
1981	57	11	68
1982	51	12	63
1983	84	19	103
1984	73	17	90
1985	75	16	91
<u>TOTAL</u>	<u>556</u>	<u>119</u>	<u>675</u>

Source: Bureau of Vital Statistics, Alaska
 Department of Health and Social Services.

TABLE 118
 NATURAL INCREASE
 KOTZEBUE
 1977 - 1985

<u>Year</u>	<u>Births</u>	<u>Deaths</u>	<u>Increase</u>
1977	66	19	44
1978	70	17	53
1979	62	19	43
1980	62	21	41
1981	68	14	54
1982	63	21	42
1983	103	14	89
1984	90	n/a	n/a
1985	91	n/a	n/a
<u>TOTAL 1977-85</u>	<u>494</u>	<u>125</u>	<u>369</u>

Source: Bureau of Vital Statistics, Alaska
 Department of Health and Social Services.

TABLE 119
 PERMANENT FUND DIVIDEND RECIPIENTS
 KOTZEBUE
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		253	281	308
5 - 9			264	282
10 - 14			246	256
15 - 19			230	215
20 - 24			264	280
25 - 29			275	295
30 - 34			254	267
35 - 39			172	226
40 - 44			132	141
45 - 49			101	97
50 - 54			90	72
55 - 59			62	78
60 - 64			42	48
65 - 69			34	32
70 - 74				
75 & over			46	48
Un kn own	3	9	3	8
<u>TOTAL</u>	<u>2,455</u>	<u>2,511</u>	<u>2,526</u>	<u>2,678</u>

Note: 1982 age breakdown: 0-17 - 945; 18-27 - 486; 28-37 -461; 38-47 - 231; 48-57 - 165; 58-67 - 84; 68-77 - 64; 78+ - 16; Unknown - 3; Total - 2,455.
 1983 age breakdown: 0-4 - 253; 5-17 - 646; 18-27 - 554; 28-37 - 458; 38-47 - 247; 48-57 - 179; 58-67 - 85; 68-77 - 57; 78+ - 23; Unknown - 9; Total - 2,511.

Source: Alaska Department of Revenue.

TABLE 120
 SCHOOL ENROLLMENTS
 KOTZEBUE
 1975 - 1987

<u>Year</u>	<u>Elementary</u>	<u>Secondary</u>	<u>Total</u>
1975/76	466	157	623
1976/77	341	288	629
1977/78	322	298	620
1978/79	343	304	647
1979/80	316	320	636
1980/81	313	276	589
1981/82	340	249	589
1982/83	325	239	564
1983/84	372	237	609
1984/85	286	233	519
1985/86	322	227	549
1986/87	364	242	606

Source: Alaska Department of Education.

TABLE 121

FINAL ENROLLMENT BY GRADE
KOTZEBUE
1975/76 - 1986/87

<u>Year</u>	<u>Kind</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>Ung/ Spec</u>	<u>Tot</u>
1975/76*		50	29	36	50	51	61	76	58	55	57	26	40	70	693
1976/77															
1977/78															
1978/79	41	49	55	56	35	48	48	56	67	63	46	44	41		649
1979/80	41	41	47	53	48	28	41	49	47	61	49	32	40		577
1980/81	48	39	46	48	49	50	30	41	44	41	52	41	31		560
1981/82	63	49	45	47	49	54	55	29	47	43	43	47	30		601
1982/83															
1983/84															
1984/85															
1985/86	61	55	42	46	42	44	36	51	41	47	29	21	38		553
1986/87	63	49	49	47	49	42	45	33	44	36	40	30	21		548

* Elementary students listed as Ungraded are all non-Natives. Data are final enrollment for first quarter. (School was run by the Bureau of Indian Affairs at this time).

Note: Kindergarten enrollment also includes Pre-Kindergarten students in some years.

Source: Alaska Department of Education, Educational Finance and Support Services.

B. POPULATION COMPOSITION

Kotzebue's population remains predominantly Alaska Native. There was little change in **racial** composition registered between the 1970 Census which reported 78.8 percent Native and the 1980 Census which reported 76.6 percent. In the absence of more current data, it is at least plausible that the **non-Native** share may have increased slightly since **1980** in response to expanded employment opportunities in public services.

The sex composition of Kotzebue's Native population balanced in the two most recent Censuses. The slight surplus of males over females reported in the 1980 Census is confined to the lower age groups and is likely a matter of chance. Comparison of **pre-adult** and young adult age cohorts for Natives between the 1970 and **1980** Censuses reveals negligible numerical change, which again suggests that net migration within the Native population was not a positive force for population growth in that decade.

On the other hand, Kotzebue's non-Native population grew unevenly. The sex distribution of the non-Native population was about even in 1970 but heavily skewed toward male predominance by 1980. The surplus males are concentrated in the 25-44 year age bracket which implies a substantial immigration of unattached young non-Native males to Kotzebue over the decade.

Kotzebue also exhibits the typical rural imbalance in its ratio of single males to single females 15 years of age and older. Single males outnumber

TABLE 122

POPULATION COMPOSITION BY SEX AND AGE
KOTZEBUE

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	127	132	259
5 - 14	165	149	314
15 - 24	118	84	202
25 - 34	121	84	205
35 - 44	78	54	132
45 - 54	53	36	89
55 - 64	24	22	46
65 and over	25	18	43
<u>TOTAL</u>	<u>711</u>	<u>579</u>	<u>1,290</u>
<u>Median Age</u>	<u>20.4</u>	<u>16.1</u>	<u>18.6</u>

Source: U.S. Bureau of the Census.

TABLE 123
POPULATION COMPOSITION
KOTZEBUE
1969

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	90	84	174
5 - 9	116	106	222
10 - 14	87	100	187
15 - 19	70	65	135
20 - 24	25	33	58
25 - 29	23	38	61
30 - 34	31	32	63
35 - 39	36	34	70
40 - 44	27	24	51
45 - 49	24	20	44
50 - 54	21	17	38
55 - 59	26	16	42
60 - 64	17	19	36
65 and over	20	17	37
<u>TOTAL</u>	<u>613</u>	<u>605</u>	<u>1,218</u>
<u>Median Age</u>	<u>16.0</u>	<u>16.0</u>	<u>16.0</u>

Note: Based on ASHA' community survey (65 percent sample), December 1969.

Source: Alaska State Housing Authority, 1971.

TABLE 124
POPULATION COMPOSITION
KOTZEBUE
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	96	90	186	20	36	56
5 - 14	230	230	460	39	37	76
15 - 24	113	119	232	11	20	31
25 - 34	63	72	135	47	47	94
35 - 44	53	64	117	24	11	35
45 - 54	49	43	92	19	13	32
55 - 64	46	39	85	8	5	13
65 and over	21	24	45	6	1	7
<u>TOTAL</u>	<u>671</u>	<u>681</u>	<u>1,352</u>	<u>174</u>	<u>170</u>	<u>344</u>
<u>Median Age</u>	<u>15.9</u>	<u>16.8</u>	<u>16.3</u>	<u>28.7</u>	<u>21.3</u>	<u>26.0</u>

<u>Age Range</u>	<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	116	126	242
5 - 9	145	127	272
10 - 14	124	140	264
15 - 19	91	86	177
20 - 24	33	53	86
25 - 29	51	70	121
30 - 34	59	49	108
35 - 39	40	42	82
40 - 44	37	33	70
45 - 49	38	31	69
50 - 54	30	25	55
55 - 59	34	29	63
60 - 64	20	15	35
65 and over	27	25	52
<u>TOTAL</u>	<u>845</u>	<u>851</u>	<u>1,696</u>
<u>Median Age</u>	<u>17.1</u>	<u>16.9</u>	<u>17.0</u>

Note: Native is defined as Alut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 125

POPULATION COMPOSITION
KOTZEBUE
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	91	97	188	26	21	47	117	118	235
5 - 9	93	86	179	23	17	40	116	103	219
10 - 14	108	84	192	18	17	35	126	101	227
15 - 19	110	83	193	17	9	26	127	92	219
20 - 24	69	97	166	13	18	31	82	115	197
25 - 29	69	74	143	47	33	80	116	107	223
30 - 34	60	49	109	41	25	66	101	74	175
35 - 39	28	34	62	33	17	50	61	51	112
40 - 44	37	26	63	20	14	34	57	40	97
45 - 49	26	36	61	12	12	24	38	47	85
50 - 54	24	28	52	16	8	24	40	36	76
55 - 59	20	18	38	6	0	6	26	18	44
60 - 64	13	13	26	4	3	7	17	16	33
65 - 69	21	18	39	5	2	7	26	20	46
70 - 74	16	14	30	0	0	0	16	14	30
75 and over	17	16	33	2	1	3	19	17	36
<u>TOTAL</u>	<u>802</u>	<u>772</u>	<u>1,574</u>	<u>283</u>	<u>197</u>	<u>480</u>	<u>1,085</u>	<u>969</u>	<u>2,054</u>
<u>Median Age</u>	<u>20.0</u>	<u>21.9</u>	<u>21.1</u>	<u>29.8</u>	<u>27.6</u>	<u>28.8</u>	<u>23.4</u>	<u>22.9</u>	<u>23.1</u>

source: U.S. census.

TABLE 126

MARITAL STATUS, BY SEX
PERSONS 15 YEARS AND OLDER
KOTZEBUE
1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	317	225
Married	337	326
Separated	9	10
Widowed	17	43
Divorced	46	43
<u>TOTAL</u>	<u>726</u>	<u>647</u>

Source: 1980 Census.

TABLE 127

HOUSEHOLD TYPE AND RELATIONSHIP
KOTZEBUE

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	413	20.1%
Spouse	307	15.0
Other Relatives	1,077	52.4
Non-Relative	54	2.6
Sub-Total	1,851	90.1
In Non-Family Household		
Male Householder	93	4.5
Female Householder	59	2.9
Non-Relative	43	2.1
Sub-Total	195	9.5
In Group Quarters		
Inmate of Institution	0	0.0
Other	8	.4
Sub-Total	8	.4
<u>TOTAL</u>	<u>2,054</u>	<u>100.0%</u>

Source: 1980 Census.

single females by a ratio of 1.41 to 1. However, data on the sex composition of the Native and non-Native populations suggest that this imbalance may primarily be attributed to the surplus of non-Native males.

The median age of Kotzebue's Native population has been rising steadily since 1970 when it was registered at 16.3 years. By **1980**, the comparable figure had climbed to 21.1 years and Permanent Fund recipient data for the entire Kotzebue population indicates a continued rise through **1985**, when the median age for the population as a whole was 24.9 years. Two circumstances suggest that Kotzebue's median age may again be reversing direction. The recent rise in birth rates was previously noted. This rise may be related to age and sex composition data from the 1980 Census which prefigured a sharp increase in the number of young adults entering their childbearing years by the **mid-1980s**.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Northrim Associates conducted a sample survey of the occupations of 247 employed persons at Kotzebue in 1978. The distribution of occupations is consistent with the **pre-eminent** role of white collar government employment. Employment was heavily concentrated in administrative occupations (professional - 12.6 percent; public management - 8.1 percent; technical - 9.7 percent; clerical - 10.1 percent) typical of public sector employment. On the other hand, the frequency of trade, service and industrial occupations was comparatively low.

TABLE 128
 OCCUPATIONS OF EMPLOYED PERSONS
 KOTZEBUE
1978

<u>Occupation</u>	<u>Percent</u>
Professional	12.6%
Management/Public	8.1
Management/Private	3.6
Technical Worker	9.7
Clerical	10.1
Sales	4.0
Crafts Person	0.8
Carpenter/Mechanic	4.0
Operator/Driver	4.9
Laborer/Construction	9.3
Cleaning Services	9.3
Food Services	4.5
Health Services	6.5
Protective Services	1.6
Personal Services	5.3
Fishing	1.2
Cannery	1.2
Military	1.2
Religious	2.0
<u>TOTAL</u>	<u>100.0%</u>

N = 247

Source: **Northrim** Associates, Inc. 1979 (per Policy Analysts, Inc., 1980).

Comparative review of various sources of employment data for **Kotzebue** since 1980 suggests that each data source has its idiosyncratic flaws. According to the April 1980 Census, total employment at Kotzebue, including self-employed persons, was 718. For the same month, the Alaska Department of Labor tally of covered wage employment only was 1,165, a difference of about 62 percent. Sector by sector comparisons indicate that the difference is concentrated in the categories of service and public sector employment. At **Kotzebue**, as elsewhere, the Census appears to have classified some public service employment as service and under-reported public sector employment. On the other hand, the Alaska Department of Labor local government employment figures are inflated by the inclusion of all Northwest Arctic school district employees, regardless of their actual place of work. Thus, the Department of Labor local government employment figures and its total employment figures appear to be overstated.

The 1980 survey of **Kotzebue** total employment and earnings compiled by Derbyshire and Associates provides an additional source of employment data. But, like the Census and the Alaska Department of Labor employment data, this survey presents some improbable findings. First, the reported employment count (average annual employment: 1,247) is implausibly high. According to the 1980 Census, **Kotzebue** had a total of 1,042 residents between 20 and 64 years of age. Even allowing for some Census **undercounting**, offset for unemployment and non-participation in the workforce, it seems very unlikely that average annual employment, including self-employment, would attain the level cited, as it exceeds the **workforce** size. Second, the figure reported for average annual earnings (\$30,800) at

TABLE 129
 SELECTED LABOR FORCE DATA
 KOTZEBUE
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	3	0	3	0	3
Civilian Employed	204	217	390	328	718
Civilian Unemployed	74	19	82	22	104
Not in Labor Force	206	249	221	279	500
Labor Force Participation Rate	57.0%	48.0%	68.0%	55.0%	62.0%
Unemployment Rate: 1980	26.6%	8.1%	17.4% ^o	6.3%	12.7%
1970	*	*	8.8%	8.2%	8.5%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	5	29
Manufacturing	0	4
Transportation	45	66
Communications	22	41
Trade	52	98
Finance, Insurance & Real Estate	8	19
Services	132	290
Public Administration	39	167
Other	61	4
<u>TOTAL</u>	<u>364</u>	<u>718</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 130
COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1980 - 1986

<u>Industry Classification</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Mining	0	0	0	0	*	8	*
Construction	36	*	*	*	16 ^a	*	*
Manufacturing	*	0	0	0	0	0	0
Transportation, Communication and Public Utilities	125	151	196	194	182	119	99
Trade	113	155	205	189	161	169	211
Finance, Insurance and Real Estate	*	40	37 ^a	42	71	78	66
Services	138	165 ^a	170 ^b	*	*	231 ^b	*
Government							
Federal	210	202	139	110	122	136	151
State	58	50	58	80	86	91	90
Local	449	600	727	506	538	575	560
Miscellaneous	*	*	*	*	*	*	*
<u>TOTAL</u>	<u>1,160</u>	<u>1,443</u>	<u>1,568</u>	<u>1,366</u>	<u>1,399</u>	<u>1,417</u>	<u>1,449</u>

* Figures withheld to comply with disclosure regulations.

^a Prorated from nine months of data.

^b Prorated from six months of data.

Source: Alaska Department of Labor.

TABLE 131

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1977

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	*	*	k	*	*	*	*	*	*	*	*	*
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	99	97	98	105	136	141	300	304	298	108	111	104
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	85	84	90	94	98	111	194	186	178	99	100	105
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	183	189	178	110	121	118	*	*	*	163	161	159
Miscellaneous	0	0	0	0	0	0	o	o	o	0	0	0
Government	336	334	332	332	333	320	314	317	329	348	356	328
Federal	268	268	269	267	257	235	232	234	253	270	275	270
State**	12	15	16	14	13	12	9	8	8	12	13	14
Local**	56	51	47	51	63	73	73	75	68	66	68	44
<u>TOTAL</u>	<u>767</u>	<u>771</u>	<u>768</u>	<u>709</u>	<u>758</u>	<u>762</u>	<u>1,012</u>	<u>1,008</u>	<u>964</u>	<u>822</u>	<u>828</u>	<u>792</u>

* Figures withheld to comply with disclosure regulations.

** Full coverage of state and local government employment began in 1978.

Source: Alaska Department of Labor.

TABLE 132

COVERED *INDUSTRY* EMPLOYMENT
CITY OF KOTZEBUE
1978

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	91	87	92	92	130	189	180	166	182	81	84	87
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	99	88	117	115	125	131	119	123	126	122	124	123
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	148	139	140	99	105	114	87	123	140	113	127	119
Miscellaneous	0	0	0	0	0	0	0	0	0	0	0	0
Government												
Federal	277	271	270	275	205	247	248	270	281	280	280	279
State	41	41	55	40	41	40	37	37	42	40	50	57
Local	399	401	419	421	407	225	245	259	401	432	429	420
<u>TOTAL</u>	1,100	1,371	1,134	1,080	1,122	1,004	967	1,033	1,220	1,115	1,147	1,135

* Figures withheld to comply with disclosure regulations.

Source: Alaska Department of Labor.

TABLE 133

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1980

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	21	23	28	25	21	34	33	27	25	57	41	97
Manufacturing	*	*	*	*	*	*	o	0	0	0	0	0
Transportation, Communication and Public Utilities	106	103	99	100	113	169	166	165	147	117	109	109
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	99	93	91	104	112	121	137	127	128	120	109	120
Finance, Insurance and Real Estate	*	*	*	*	*	*	*	*	*	*	*	*
Services	125	119	120	154	136	140	151	158	147	151	127	133
Miscellaneous	0	0	0	0	0	0	*	*	*	*	*	*
Government:												
Federal	212	215	214	226	226	203	190	191	195	216	217	211
State	48	61	74	73	70	58	51	44	61	53	50	50
Local	471	467	460	468	471	531	290	289	477	486	494	480
<u>TOTAL</u>	1,095	1,095	1,099	1,165	1,163	1,268	1,033	1,024	1,234	1,267	1,213	1,267

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 134

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	103	108	109	101	141	173	222	202	256	139	130	123
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	105	109	103	108	131	145	187	264	192	167	173	171
Finance, Insurance and Real Estate	26	30	31	29	32	32	38	54	61	55	47	41
Services	142	142	142	202	201	235	*	*	*	137	141	142
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	212	217	213	212	211	192	204	202	201	191	185	182
State	48	50	48	48	44	47	52	53	51	57	47	56
Local	505	542	497	609	613	601	597	589	633	657	672	680
<u>TOTAL</u>	1,165	1,216	1,160	1,334	1,385	1,440	1,633	1,673	1,634	1,556	1,564	1,558

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 135

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	23	26	23	16	2	2	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	164	168	170	169	187	216	244	239	241	190	177	181
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	164	155	148	151	157	200	314	373	177	209	209	206
Finance, Insurance and Real Estate	*	*	*	32	30	41	31	42	41	41	42	36
Services	139	167	146	*	*	*	212	191	165	*	*	*
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	179	178	175	174	179	144	106	109	105	101	107	105
State	54	59	59	52	55	54	57	57	60	64	66	64
Local	704	733	761	798	830	873	703	716	899	574	581	554
<u>TOTAL</u>	<u>1,458</u>	<u>1,513</u>	<u>1,513</u>	<u>1,558</u>	<u>1,615</u>	<u>1,716</u>	<u>1,727</u>	<u>1,782</u>	<u>1,743</u>	<u>1,420</u>	<u>1,422</u>	<u>1,351</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 136

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	0	0	0	0	0	0
Construction	*	*	*	*	*	*	*	*	*	35	30	45
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	179	173	180	190	204	219	212	225	215	191	174	168
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	181	168	175	179	182	202	230	290	182	156	157	160
Finance, Insurance and Real Estate	38	35	40	41	41	38	50	56	40	40	42	40
Services	*	*	*	*	*	*	259	255	185	*	*	*
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	105	104	109	110	113	113	115	114	114	106	105	109
state	68	69	76	88	77	83	78	82	89	87	81	79
Local	585	600	590	601	613	502	141	185	526	595	599	553
<u>TOTAL</u>	<u>1,370</u>	<u>1,362</u>	<u>1,374</u>	<u>1,419</u>	<u>1,456</u>	<u>1,442</u>	<u>1,133</u>	<u>1,254</u>	<u>1,400</u>	<u>1,408</u>	<u>1,414</u>	<u>1,365</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 137

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1984

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	0	0	0	0	0	0	*	*	*	*	*	*
Construction	7	4	5	*	*	*	10	37	34	29	10	4
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	171	174	173	166	179	196	206	220	201	175	163	161
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	146	138	136	139	155	174	191	173	180	188	156	159
Finance, Insurance and Real Estate	57	69	78	68	59	62	93	139	66	57	53	55
Semites	*	*	*	*	*	*	223	218	225	*	*	*
Miscellaneous	*	*	*	16	17	24	*	*	*	*	*	*
Government												
Federal	106	110	108	117	118	135	138	131	129	133	121	114
State	76	85	75	78	79	82	86	91	100	97	86	101
Local	607	621	586	634	638	514	173	245	579	630	625	604
<u>TOTAL</u>	<u>1,385</u>	<u>1,410</u>	<u>1,363</u>	<u>1,425</u>	<u>1,457</u>	<u>1,403</u>	<u>1,130</u>	<u>1,268</u>	<u>1,527</u>	<u>1,529</u>	<u>1,453</u>	<u>1,433</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 138

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1985

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	*	*	*	*	*	*	*	*	*	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	156	146	140	109	110	114	106	115	115	109	109	104
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	142	151	156	155	165	166	188	248	172	181	150	153
Finance, Insurance and Real Estate	60	61	59	62	63	70	101	174	79	75	66	61
Services	*	*	*	214	210	222	*	*	*	237	241	262
Miscellaneous	*	*	*	*	*	*	15	12	15	*	*	*
Government												
Federal	115	119	120	124	126	133	150	146	145	161	150	147
state	97	93	104	85	96	81	73	76	104	96	98	90
Local	637	615	615	645	646	428	363	383	600	694	650	626
<u>TOTAL</u>	<u>1,435</u>	<u>1,415</u>	<u>1,420</u>	<u>1,405</u>	<u>1,430</u>	<u>1,226</u>	<u>1,264</u>	<u>1,442</u>	<u>1,453</u>	<u>1,571</u>	<u>1,479</u>	<u>1,465</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 139

COVERED INDUSTRY EMPLOYMENT
CITY OF KOTZEBUE
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	6	4	5	*	*	*	33	24	17	*	*	*
Manufacturing	0	0	0	0	0	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	98	94	96	93	94	95	103	117	100	102	103	96
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	179	170	165	179	187	184	222	237	226	262	257	263
Finance, Insurance and Real Estate	55	55	55	56	57	59	84	110	71	58	66	62
Services	*	*	*	*	*	*	*	*	*	*	*	*
Miscellaneous	*	*	*	*	*	*	*	*	*	15	15	10
Government												
Federal	142	145	149	131	147	166	170	173	165	152	137	130
State	100	87	88	99	90	93	87	89	78	95	89	79
Local	626	657	652	665	602	434	374	403	716	499	543	549
TOTAL	1,459	1,473	1,478	1,509	1,468	1,315	1,365	1,395	1,595	1,438	1,458	1,430

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

Kotzebue is one-third higher than the Statewide average annual wage. Taken together, the seemingly high employment and earnings levels reported by this survey result in a 1980 average earned income per household of approximately \$76,000, assuming 506 households as reported by the 1980 Census. For comparison, the Census reported a **1979** average total family income of \$32,250 for Alaska. **In sum**, the **overall** picture of Kotzebue employment and earnings presented by this survey are much at odds with other data sources and with the general belief that unemployment and under-employment are commonplace in Kotzebue and that incomes are below Statewide averages. On the other hand, the Derbyshire and Associates study does provide some information on the relative scale of employment in commercial fishing and fish processing (natural resource production employment: 90) and by quasi-public and non-profit service organizations (129 employees) at the time of the survey.

More recently, **Manilaq** Manpower (undated, circa 1984) compiled an inventory of all jobs in the region, including Kotzebue. The inventory counted the number of jobs by employer, along with details on part-time or seasonal employment. For present purposes, these data were re-grouped by private sector employers and by federal, State and local government agencies. In view of their functions and sources of funding, quasi-public and non-profit agencies serving Kotzebue and its region were classified as local employers, although they are classed as service employment by the Alaska Department of Labor.

TABLE 140
EMPLOYMENT AND EARNINGS BY INDUSTRY
CITY OF KOTZEBUE

<u>Industry</u>	<u>Number of Employees</u>	<u>Total Income</u> (\$000)	<u>Average Annual Income</u>
Natural Resource Production	90	\$ 1,705	18,900
Mining and Exploration	17	653	38,400
Construction	100	6,739	67,400
Household Manufacturing	7	500	71,400
Transportation	77	2,443	31,700
Warehousing and Distribution	20	1,154	57,700
Commun. and Pvt. Utilities	34	903	26,600
Trade and Private Services	197	4,212	21,400
Finance and Real Estate	34	1,200	35,300
Quasi-Public and Non-Profit	129	2,965	23,000
Local and Regional Government	329	10,129	30,800
State Agencies and Services	62	1,680	27,100
Federal Agencies and Service	103	2,927	28,400
Intra-Region Migration	48	1,255	26,100
<u>Sub-Total</u>	<u>1,247</u>	<u>\$38,465</u>	<u>\$30,800</u>
Transfer Payments		3,949	
<u>TOTAL</u>		<u>\$42,414</u>	

Source: Derbyshire and Associates, 1981.

The **Maniilaq** Manpower survey counted 901 jobs in Kotzebue, of which about 30 percent (268 jobs) were in the private sector; about 10 percent (89) in federal government; about 11 percent (101) in State government; and 49 percent (443) in local and regional governing agencies. Thus, according to the **Maniilaq** survey, fully **70** percent of **Kotzebue's** employment base was in the public sector, with nearly half of all employment concentrated in local governmental agencies.

The Alaska Department of Labor covered employment data were reviewed for the purposes of evaluating employment trends since **1980**. Any inferences regarding trends must be qualified because of some obvious quirks in the data. (For example, the 1981 and 1982 local government and total average annual employment figures are unexplainably high compared with preceding and following years). Nevertheless, total employment was reported to increase by 25 percent between 1980 and **1986**. Major gains in local government, trade, and State government employment levels were somewhat offset by losses in federal employment and transportation, communications and public utilities. The data series for the service sector is spotty, but suggests some gains in that sector also. Overall, the employment gains are proportionate to the population increases estimated for Kotzebue by the Department of Labor during this period.

In order to evaluate the **seasonality** of employment at **Kotzebue**, the Alaska Department of Labor's average monthly covered employment was calculated over the seven-year span 1980-1986 and the percent difference between the monthly averages and annual average was measured. The statistical findings

TABLE 141

KOTZEBUE JOB LIST
C. 1984

<u>Employer</u>	<u>Employees</u>
Cominco Alaska, Inc.	11
Chalet Home Builders	4
Eon, Inc.	16 ^a
Alaska Airlines	13 ^b
Arctic Lighterage	10
Baker Aviation	16
Cape Smythe Air Service	8
Mark Air Cargo	4
Ryan Air	9.5
Shellabarger Flying Service	8
Alascom, Inc.	2
KOTZ Broadcasting	13
Kotzebue Electric Association	16
Kotzebue Cablevision	2
OTZ Telephone Cooperative, Inc.	11
Alaska Commercial Company	35 ^c
Arctic Bookstore	3
Hanson's Store	32.5 ^d
Alaska Bank of the North	6
Kiki ktagrük Inupiat Corporation	13
Alaska Legal Services	3
Churches	6
C.J. Winkle	5
E & N Auto	2
Kotzebue Janitorial Services	1
NANA Regional Corporation	7
Nulukvik Hotel	2 ^e
Museum of the Arctic	5
Noyuk Laundromat	1
Private Attorney	2 ^f
Starcade	1
<u>Sub-Total</u>	<u>268</u>
Federal Government	
Federal Aviation Administration	3
National Park Service	119
Postal Service	7
Public Health Service	68
<u>Sub-Total</u>	<u>89</u>

State of Alaska	
Alaska Army National Guard	44
Alaska Court System	11
Alaska State Troopers	7
Chukchi Community College	23
Dept. of Community/Regional Affairs	3
Department of Fish and Game	6
Department of Law	2
Job Service	1
Legislative Affairs Office	2
Office of the Governor	2
<u>Sub-Total</u>	<u>101</u>
Local Government	443
City of Kotzebue	99
Kotzebue IRA	5
Maniilaq Association	187
Maniilaq Manpower	10
Northwest Arctic School District	142
<u>Sub-Total</u>	<u>443</u>
<u>TOTAL</u>	<u>901</u>

-
- ^a Includes 20-25 part-time and/or seasonal jobs, here counted as equivalent to 6 full-time positions.
- ^b Includes 5 part-time positions, here counted as equivalent to 3 full-time positions.
- ^c Original survey lists 34-36 positions, here counted as 35.
- ^d Original survey counts 32-33 positions, here counted as 32 1/2.
- ^e Only 2 positions at **Nulukvik** Hotel were reported in original survey; actual employment was certainly higher.
- ^f Original survey lists 1-3 positions, here counted as 2.
- ^g Includes 16 full-time summer jobs, here counted as equivalent to 4 full-time positions.

Source: NANA Region Career Survey, undated (c. 1984).

TABLE 142

AVERAGE MONTHLY EMPLOYMENT
CITY OF KOTZEBUE
1980 - 1986

	<u>Average Monthly Employment</u>	<u>% Di fference from Annual Average</u>
January	1,338	-4.4%
February	1,355	-3.2
March	1,344	-4.0
April	1,402	+0.1
May	1,425	+1.8
June	1,401	+0.1
July	1,326	-5.3
August	1,405	+0.4
September	1,512	+8.0
October	1,456	+4.0
November	1,429	+2.1
December	1,410	+0.7
Annual Average	1,400	

Source: Alaska Department of Labor.

indicated that Kotzebue's total employment pattern exhibits relatively little seasonal **ity**. The peak employment months have tended to be September and October, while the low employment months were January through March and July. The low July employment level reflects the release of school employees for the summer which introduces a counter-cyclic tendency. This tendency may be exaggerated if regionwide school district employment is all reported **to** the headquarters. The level and **seasonality** of local government employment at Kotzebue indicate that school employees in the outlying villages are, indeed, attributed to **Kotzebue**.

13
12

DEERING

A. PAST POPULATION TRENDS

Deering is situated on the north coast of the Seward Peninsula in the southern arc of **Kotzebue** Sound. The modern village is located by the mouth of the **Inmachuk** River near the historic site of the ancient settlement of Inmachukmiut (**U.S. Federal Field Committee, 1969**). **Burch** includes the traditional, that is, pre-contact population of **Deering** within the territory of the Goodhope Bay society. Reportedly, the explorer von Kotzebue made first local contact during his **1814** voyage into the region. Orth (1967) suggests that the present-day settlement took its name from the schooner *Abbey Deering* which visited the area around 1900.

Deering's history **well** exemplifies an observation of Burch's about the general fluidity of traditional settlement patterns in Northwest Alaska. Burch notes that, contrary to a naive assumption that settlement patterns were stable until disrupted by contact, "Life always seems to have been in a state of flux in Northwest Alaska." Deering and other villages in the Kotzebue region give evidence of a continual process of local depopulation caused partly by deaths from disease or famine and partly by evacuation, followed by resettlement as survivors returned and residents of adjacent territory moved into vacated **areas**.

Burch estimates the total pre-contact population of the Goodhope Bay society, of which traditional Deering was part, at about 300 persons.

TABLE 143
POPULATION ESTIMATES
DEERING
1800 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1800		300	Burch estimate for Goodhope Bay society
1850		75	Burch estimate for Goodhope Bay society
1880		50	Burch estimate for Goodhope Bay society
1900		25	Burch estimate for Goodhope Bay society
1910	100		
1920	73		
1929	183		
1939	230		
1945		250	Cultural Dynamics
1949		164	Alaska Native Service
1950	174		
1957		88	Ray, 1959
1960	95	100	Ak. Department of Labor (July)
1964		48	Cultural Dynamics
1967		89	Federal Field Committee - 87 Native; 2 non-Native
1968		95	Alaska Area Native Health Service
1969		95	Federal Field Committee - 90 Native; 5 non-Native
1970	85	90	Ak. Department of Labor (July)
1975		108	U. S. Census Bureau
1976		122	U. S. Census Bureau
1980	150	132	Dept. Community/Regional Affairs
1981	155*	155	Dept. Community/Regional Affairs
1982	158*	140	U. S. Census Bureau (July)
1983	165*	158	Dept. Community/Regional Affairs
1984	142*	148	Dept. Community/Regional Affairs
1985	153*	148	Dept. Community/Regional Affairs

1986	148	Dept. Community/Regional Affairs
1987	157	Dept. Community/Regional Affairs

* Alaska Department of Labor estimates of July 1 population derived using U.S. Census methodology. Where these figures are the same as those cited by the Department of Community and Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: **U.S.** Census (1910 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

TABLE 144
 POPULATION TRENDS
 DEERING
1910 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1910	100		
1920	73	-27.0	
1930	183	150.7	
1939	230	25.7	
1950	174	-24.3	
1960	95	-45.4	
1970	85	-11.5	
1980	150	76.5	
1981	155		3.3
1982	158		1.9
1983	165		4.4
1984	142		-13.9
1985	153		7.7

Sources: U. S. Census (1910 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

According to Burch, the original Goodhope Bay people were virtually wiped out by some unrecorded catastrophe between 1800 and 1850. The drastic decline of caribou populations after **1850** caused further attrition in population levels. Many **Malemiut** residents of the area relocated, first seasonally, and later permanently, southward to inner Norton Sound coastal areas, perhaps because of similar subsistence opportunities. By the turn of the century, after most village residents died in an outbreak of measles and pneumonia (Ray, **1983**), the resident population of the Goodhope Bay society's territory had shrunk to only 25 persons (**Burch**).

With the onset of mining beginning about 1900, white miners, then Natives, began to repopulate the area. Miners prospected throughout the **Deering-Candle** vicinity. The availability of wage labor in support of mining drew Natives back into the area. For the next couple of decades, **Deering's** population rose and fell with the **level** of **local** mining activity.

Deering's first Census appearance was in 1910 when **100** residents were counted. Its population dropped to 73 by the 1920 Census, a drop that may in part be explained by the relocation of many Native residents to settle a new town at **Noorvik**. As Ray (1983) recounts the event:

In 1914, a committee of Deering residents, under the guidance of the Bureau of Education and the Quaker missionary, chose a site on the **Kobuk** River where they built a new town called **Noorvik** ("transplanted"). . . . The decision to move was, in part, suggested by the depletion of the salmon fishery due to mining operations, although natural resources of the area after the caribou disappeared had been less productive than the rest of the peninsula. Deering did not die as a village, however, and is still inhabited.

By the 1939 Census, the population had rebounded to 183. **Deering's** population reached its official modern peak of 230 persons in the 1939 Census, although another study (Cultural Dynamics, Ltd.) estimated 250 residents as of 1945. Thereafter, mining slipped into a decline from which it has not recovered. The 1950 Census recorded a drop to 174 residents a trend which continued down to 95 residents in the 1960 Census.

By 1964, **Deering** had dropped to its reported (Cultural Dynamics, Ltd.) contemporary low of 48 residents, with barely enough school children to keep its school open. Deering seemed headed for abandonment, much like the nearby settlement of Candle. Many Natives and some whites reportedly moved to **Kotzebue**, while other whites simply left the region altogether. The 1971 ASHA community survey (65 percent sample) of **Kotzebue** residents found that Deering was the birthplace of 13 Native heads of household, more than any other village outside **Kotzebue** except Noatak and Point Hope (also 13 heads of household).

Then, Deering experienced another revival. Its population rose again to 85 persons in the 1970 Census and 150 persons by the 1980 Census. Speculatively, the economic opportunities created by passage of the Alaska Native Claims Settlement Act, including a renewed interest in traditional village lands, together with generally improved living conditions and employment options, may help explain this demographic rebound. Coincidentally, we note here that every village in the Kobuk region gained in population, most of them significantly, between 1970 and 1985.

Over the past decade, **Deering** appears to have attained a stability perhaps unrivaled since the early **1800s**. The population, again almost wholly Native, has fluctuated within a range - about 150 to 160 residents - that seems adequate to assure its continuation, barring any radical adverse change in local economic conditions or living standards.

B. POPULATION COMPOSITION

Like many former mining towns of **the** Seward Peninsula, the **racial** mix of Deering's population has fluctuated widely in the post-contact **era**. The mining era brought a wave **of** non-Natives, including a few Oriental immigrants, into the area at a time when few Natives remained in the vicinity of Deering. However, the employment and trading opportunities associated with mining activities attracted both former Native inhabitants as **well** as Natives from the region's other villages to the Deering area again. Thereafter, the racial balance of the community teetered as miners and Natives came and went. Eventually, Natives once again became dominant.

Data on the racial, age and sex composition of the population are available from the 1970 and 1980 Census. By 1970, Natives comprised 98 percent of the population and in 1980, 92 percent. As these percentages show, part of the population growth from 1970 to 1980 was composed of non-Native **in-**mi grants.

In 1960, the population was relatively evenly balanced between males and females and in its age composition by sex. However, the median age was

TABLE 145
POPULATION COMPOSITION
DEERING
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	Male	Female	Total	Male	Female	Total
Under 5 years	4	3	7	0	0	0
5 - 14	17	19	36	0	0	0
15 - 24	5	7	12	1	1	2
25 - 34	3	3	6	0	0	0
35 - 44	5	4	9	0	0	0
45 - 54	2	1	3	0	0	0
55 - 64	3	4	7	0	0	0
65 and over	1	2	3	0	0	0
<u>TOTAL</u>	<u>40</u>	<u>43</u>	<u>83</u>	<u>1</u>	<u>1</u>	<u>2</u>
<u>Median Age</u>	<u>14.7</u>	<u>14.9</u>	<u>14.7</u>			

<u>Age Range</u>	<u>Total</u>		
	Male	Female	Total
Under 5 years	4	3	7
5 - 9	10	11	21
10 - 14	7	8	15
15 - 19	2	5	7
20 - 24	4	3	7
25 - 29	1	2	3
30 - 34	2	1	3
35 - 39	5	4	9
40 - 44	0	0	0
45 - 49	2	1	3
50 - 54	0	0	0
55 - 59	1	3	4
60 - 64	2	1	3
65 and over	1	2	3
<u>TOTAL</u>	<u>41</u>	<u>44</u>	<u>85</u>
<u>Median Age</u>	<u>14.9</u>	<u>15.5</u>	<u>14.9</u>

Note: Native is defined as Aleut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 146

FKEVIATION COMPOSITION
 DEERING
 1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	10	9	19				10	9	19
5 - 9	12	12	24				12	12	24
10 - 14	9	5	14				9	5	14
15 - 19	10	8	18				10	8	18
20 - 24	7	11	18				7	11	18
25 - 29	5	2	7				5	2	7
30 - 34	7	4	11				7	4	11
35 - 39	3	8	11				3	8	11
40 - 44	5	1	6				5	1	6
45 - 49	4	4	8				4	4	8
50 - 54	3	1	4				3	1	4
55 - 59	1	2	3				1	2	3
60 - 64	2	1	3				2	1	3
65 - 69	1	1	2				1	1	2
70 - 74	1	1	2				1	1	2
75 and over	0	0	0				0	0	0
<u>TOTAL</u>	80	70	150				80	70	150
<u>Median Age</u>	19.5	21.3	20.0				19.5	21.3	20.0

source: U.S. census.

TABLE 147

MARITAL STATUS, BY SEX
PERSONS 15 YEARS AND OLDER
DEERING
1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	22	15
Married	23	23
Separated	1	3
Widowed	0	1
Divorced	3	2
<u>TOTAL</u>	<u>49</u>	<u>44</u>

Source: 1980 Census.

TABLE 148

HOUSEHOLD TYPE AND RELATIONSHIP
DEERING
1980

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	28	18.7%
Spouse	23	15.3
Other Relatives	91	60.6
Non-Relative	0	0.0
Sub-Total	142	94.6
In Non-Family Household		
Male Householder	6	4.0
Female Householder	1	.7
Non-Relative	1	.7
Sub-Total	8	5.4
In Group Quarters		
Inmate of Institution	0	0.0
Other	0	0.0
Sub-Total	0	0.0
<u>TOTAL</u>	<u>150</u>	<u>100.0%</u>

Source: 1980 Census.

TABLE 149
 PERMANENT FUND DIVIDEND RECIPIENTS
 DEERING
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		16	18	15
5 - 9			16	16
10 - 14			23	17
15 - 19			13	11
20 - 24			16	15
25 - 29			9	16
30 - 34			8	6
35 - 39			11	8
40 - 44			9	6
45 - 49			6	7
50 - 54			8	6
55 - 59			1	2
60 - 64			3	3
65 - 69			2	2
70 - 74			2	1
75 & over			1	2
Unknown	0	0	0	0
TOTAL	<u>139</u>	<u>140</u>	<u>146</u>	<u>133</u>

Note: 1982 age breakdown: 0-17 - 61; 18-27 - 27; 28-37 -18; 38-47 - 13; 48-57 - 9; 58-67 - 6; 68-77 - 5; 78+ - 0; Unknown - 0; Total - 139.
 1983 age breakdown: 0-4 - 16; 5-17 - 43; 18-27 - 32; 28-37 - 15; 38-47 - 17; 48-57 - 8; 58-67 - 5; 68-77 - 4; 78+ - 0; Unknown - 0;
 Total - 140.

Source: Alaska Department of Revenue.

extremely low: 14.7 years for males and 14.9 years for females. The heavy concentration of population apparent in the late teenage and young adult age groups helped account for the youth of the population. The large number of youths, itself the result of drastically improved health care beginning in the 1950s, presaged another potential boom in **family-**formation and child-bearing in the coming decade.

In fact, the age distribution data for 1980 indicate that a substantial part of Deering's growth over the 1970s stemmed from a second baby boom as the first wave of **baby-boomers** reached the childbearing ages. Contrary to the pattern **seen** in many rural villages, the population composition data for the 20 to 35 year age group *suggest* that **Deering** did not experience the marked outflow of young adult females that produces a decidedly imbalance sex ratio within the adult population. Even so, in 1980, single males 15 years of age and older outnumbered their female counterparts by a ratio of 1.47 **males** to 1.0 females.

By 1980, the median age for males had risen to 19.5 years and for females to 21.3 years. However, this apparent aging of the overall population is more a statistical aberration than a significant trend. It stems mainly from the maturation of the outsized first baby-boom cohort, supplemented by a modest in-migration of young adults. It is plausible that the high rate of natural increase which produced the pronounced bulge in the number of children under 10 years of age at the time of the 1980 Census, also evident in the 1985 tally of Permanent Fund dividend recipients under 15 years of age, will begin to lower median age levels again in the near future.

Some inferences about population turnover at Deering can be drawn from data on ANCSA enrollments and data on mobility from the 1980 Census.

First, according to the so-called 2C Report, as of 1974, there were 159 Alaska Natives enrolled to the village of Deering. One hundred and eleven of these enrollees then lived in Deering and 48 persons, or 30 percent of all enrollees, resided elsewhere. Compared with the study communities as a group, and particularly with the smaller communities, a relatively large share of persons enrolled to Deering were living elsewhere. Conversely, a relatively high share of the Native residents at Deering were enrolled to another village. Thus, Deering ranked high both in its share of original residents who had left and in its share of Native residents coming from other villages. In sum, these figures suggest a relatively high turnover of Deering's Native population in the years before 1974.

The 1980 Census compiled data on the 1975 place of residence of current residents. The figures for Deering indicate a high rate of in-migration to Deering from outside the region between 1975 and 1980. About 24 percent (second highest among the study communities) of Deering's residents in 1980 had lived outside Alaska five years earlier and another 15 percent had lived outside the **Kotzebue** region but in Alaska. Thus, almost 40 percent of Deering's 1980 residents had moved there from outside the region within the past five years. The largely Native make-up of Deering's population in 1980 suggests that the "in-migrants" may have included numerous

repatriating Native residents as well as non-Natives who moved to Deering to fill educational and other bureaucratic positions.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Wage and salary employment has been important at Deering since the turn of the century, since the lure of paid labor in support of mining drew Natives back to the area. However, employment data prior **to** the **1970** Census is anecdotal.

According to the 1970 Census, there were 16 employees at **Deering**, concentrated in trade (5 employees) or services (11), with the latter category including public services. The 1980 *Census counted* 34 employees, still concentrated in public and private services (23) and trade (**5**). The Census also found a labor force participation rate of 42 percent and an implausibly low April 1980 unemployment rate of 5.6 percent (total unemployed: two persons). These figures suggest that some Deering unemployed may have been misclassified as "not in labor force". If so, then the actual labor force participation and unemployment rates would be higher than reported in the Census.

The Alaska Department of Labor wage and salary employment data series for the Deering area unfortunately also includes the town of **Buckland** (1980 population: 177 persons; 1985: 248 persons). As **Buckland** is larger than Deering, this data series is not an accurate indicator of absolute employment levels at Deering. However, the Department of Labor data for

the Deering area reflect roughly the same pattern of employment by sector as shown in the Census data: heavy concentration in public services, plus limited trade and private services employment.

This same employment pattern is evident in the findings of a NANA **region-**wide survey (c. 1984) of employment which identified a total of 43 jobs (including 3 half-time and 2 part-time jobs) at Deering, mostly in public services with the City of Deering or the Northwest Arctic School District. In fact, the NANA survey counted more city and school district jobs in Deering than were reported under local government to the Alaska Department of Labor for the Deering area, including **Buckland**. This suggests that the Department of Labor data omit some Deering employees, presumably Northwest Arctic School District employees being reported by and attributed to school district headquarters at Kotzebue.

In any case, the three sources of data are consistent on this key point. The public sector provides the bulk, estimated at between 80 and 90 percent, of all wage employment opportunities at Deering.

TABLE 150
 SELECTED LABOR FORCE DATA
 DEERING
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	*	*	0	0	0
Civilian Employed	*	*	34	19	15
Civilian Unemployed	*	*	2	0	2
Not in Labor Force	*	*	49	29	20
Labor Force Participation Rate	*	*	42.0%	39.0%	45.0%
Unemployment Rate: 1980	*	*	5.6%	0.0%	11.8%
1970	*	*	0.0%	0.0%	0.0%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	0	0
Manufacturing	0	0
Transportation	0	0
Communications	0	2
Trade	5	5
Finance, Insurance & Real Estate	0	0
Services	11	16
Public Administration	0	7
Other	0	4
<u>TOTAL</u>	<u>16</u>	<u>34</u>

* Data missing or suppressed.

Source: U. S. Census, 1980.

TABLE 151
COVERED INDUSTRY EMPLOYMENT
DEERING AREA**
1980 - 1986

<u>Industry Classification</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Mining	*	*	*	*	*	*	*
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0
Trade	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0
Services	*	*	*	*	*	*	*
Government	17	18	32	34	37	37	41
Federal	1	0	0	0	0	0	0
State	0	0	0	0	0	0	0
Local	16	18	32	34	37	37	41
Miscellaneous	*	*	*	0	0	0	0
<u>TOTAL</u>	<u>32</u>	<u>41</u>	<u>43</u>	<u>41</u>	<u>43</u>	<u>47</u>	<u>49</u>

* Figures withheld to comply with disclosure regulations.
** Deering area also includes Buckland and Candle.

Source: Alaska Department of Labor.

TABLE 152

DEERING JOB LIST
C. 1984

<u>Employer</u>	<u>Employees</u>
Post Office	2
Deering Native Store	3
City of Deering	19*
Ipnatchiaq Electric Company	2
Northwest Arctic School District	17**
<u>TOTAL</u>	<u>43</u>

* Includes four part-time positions.
 ** Includes three half-time positions.

Source: NANA Region Career Survey, undated (c. 1984).

KIVALINA

A. PAST POPULATION TRENDS

Modern **Kivalina** is situated on a barrier island beach facing the **Chukchi** Sea near the outlet of the **Wulik** River, about 80 air miles northwest of Kotzebue. The village site is exposed to coastal flooding and erosion from **fall** storms off the **Chukchi** Sea. Also, the site is poorly suited for the installation of piped water and sewer systems. **For** these reasons, relocation to a more secure site nearby has periodically been a topic of community discussion.

Burch (1980) suggests that the earliest European contact at **Kivalina** was either **Shishmaref** in 1821 or **Kashevarov** in 1838. When Kashevarov travelled along the northwest coast between Kotzebue Sound and Point Barrow, the **Kivalina** vicinity was still inhabited by the original **Kivalinirmiut**, who possibly spoke the northern **Inupiaq** dialect rather than **Malemiut** which prevails today.

Burch numbered the traditional **Kivalinirmiut** population of the **Kivalina** territory at about 300 persons in 1800 and again in 1850, falling off to perhaps 275 at about 1880. Then, according to **Burch**, the famine of 1881-1883 nearly annihilated the settlement. Survivors fled elsewhere, probably dispersing to the north and east, with perhaps a few original residents returning at a later date. **Burch** puts the **Kivalina** vicinity's population at an estimated 50 people at the turn of the century.

TABLE 153
POPULATION ESTIMATES
KIVALINA
1800 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1800		300	Burch
1850		300	Burch
1880		275	Burch
1900		50	Burch
1920	87		
1920		80	Burch
1929	99		
1939	98		
1950	117		
1955		129	61A March Census (per Saario)
1956		117	61A March Census (per Saario)
1957		129	Ray, 1959
1957		133	BIA March Census (per Saario)
1957		150	61A November Census (per Saario)
1958		146	BIA March Census (per Saario)
1959		145	Saario
1960	142	150	Ak. Department of Labor (July)
1967		193	Federal Field Committee - 190 Native; 3 non-Native
1968		175	Alaska Area Native Health Service
1969		175	Federal Field Committee - 170 Native; 5 non-Native
1970	188	190	Ak. Department of Labor (July)
1975		254	U. S. Census Bureau
1976		263	U. S. Census Bureau
1980	241		
1980	244*	250	Dept. Community/Regional Affairs
1981	249*	249	Dept. Community/Regional Affairs
1982		236	U. S. Census Bureau (July)
1982	253*	253	Dept. Community/Regional Affairs
1983	269*	272	Dept. Community/Regional Affairs
1984	278*	272	Dept. Community/Regional Affairs
1985	285*	272	Dept. Community/Regional Affairs

1986
1987

272
285

Dept. Community/Regional Affairs
Dept. Community/Regional Affairs

* Alaska Department of Labor estimates of July 1 population derived using U.S. Census methodology. Where these figures are the same as those cited by the Department of Community and-Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: U.S. Census (1920 - 1980 figures).
Alaska Department of Labor (1980 - 1985 figures),

Burch provides an informative account of **pre-contact** settlement patterns and the status of the traditional society at the start of the 20th century.

First, there is little doubt that the 19th century inhabitants of Northwest Alaska were the direct cultural (and probably biological) descendants of a series of **pre-historic** populations which had occupied the same general area since at least the 9th century A.D., and probably much longer. Thus, they had had at least a thousand years in which to develop their means of coping with both their environment and with one another. . . .

Evidence of long-term stability at the general level does not necessarily imply the same condition at the individual society level. At a minimum, famine must have caused the periodic abandonment of specific regions throughout prehistory, just as it did during the early part of the historic period. The famine that wiped out the population of the Arctic Coastal Plain Society for example, took place sometime between **1838** and **1848**, and cannot be attributed to European influence. The Great Famine of 1882-1884, which effectively terminated the existence of a whole group of societies on and just north and east of **Kotzebue** Sound, likewise cannot be connected in any way to the activities of Europeans. . . .

In contrast to the origins of Northwest Alaskan Eskimo societies, the facts concerning their demise are known in some detail. . . . In general, it can be said that two basic processes were at work [in the demise of Northwest Alaskan Eskimo societies], sometimes separately, usually in combination. One was the biological extinction and dispersion of societal memberships through a complex combination of imported disease, famine, and flight as refugees from one of these disasters.

When this process was completed some of the traditional territories had been abandoned, others had been **newly** re-occupied, and survivors from specific societies were separated from one another and intermingled with survivors from many other units. The second process was a gradual loss of **self-sufficiency** as representatives of Russia, and later the United States, took control of various aspects of Native life. This trend began in the late 1830s, and concluded around the end of the 19th century. . . . In any case, by 1910, although Northwest Alaskan Eskimos still survived as human beings, Northwest Alaskan Eskimo societies had passed forever out of existence. Burch, 1980, pp. 279-282.

Saario (1966) states that there was no prolonged contact with Westerners nor any fixed settlement site until a missionary school was established in

1905. Apparently, until then, the barrier island on which **Kivalina** is situated was traditionally only a spring-summer camping site, not a year-round settlement. By the time of **Kivalina's** first official Census appearance in 1920, the population was counted at 87 persons. From that date forward, the various sources of population data indicate a comparatively steady pace of growth.

Coincidentally, at the turn of the century, there was a local shortage of caribou. Reindeer herding was introduced to the area in 1903 and a modest reindeer industry started up which survived until the last of the reindeer disappeared in 1946. Also, for a time before the Great Depression, the fur industry flourished. At the peak of the fur trade, Kivalina even supported two trading stores. Subsistence bowhead whaling resumed at **Kivalina** in 1966 after a hiatus which began with the Great Famine of 1881-1883. Today, **Kivalina** is the only Kotzebue region village directly involved in such whaling activities.

Historically, as today, local subsistence practice combined an inland and coastal orientation. In **pre-contact** times, this meant that **Kivalina** people were necessarily semi-nomadic, moving between coastal, riverine and interior uplands environments as resource availability demanded. **Burch** observed that the indigenous societies in Northwest Alaska were not geographically fixed, although they were associated with a general territory and a lifestyle governed by their territorial resource base.

TABLE 154
 POPULATION TRENDS
KIVALINA
1920 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1920	87		
1930	99	13.8	
1939	98	-1.0	
1950	117	19.4	
1960	142	21.4	
1970	188	32.4	
1980	241	28.2	
1981	249		3.3
1982	253		1.6
1983	269		6.3
1984 "	278		3.3
1985	285		2.5

Sources: **U.S. Census (1920 - 1980 figures).**
 Alaska **Department** of Labor (1981 - 1985 figures).

Project Chariot, the ill-fated proposal to develop a deep-water port at Cape Thompson, about 52 miles northwest of Kivalina, by atomic excavation was a landmark event for Northwest Native political development. While Project Chariot never materialized, the threat galvanized the Native community to organize in opposition and gave impetus to the Native land claims movement in general.

During a dip in population in the **mid-1960s**, Kivalina's continuance as a permanent settlement seemed tentative. **Kivalina** lagged behind most other villages in the region in the construction of basic community facilities such as a school, airport, housing and utilities. However, as these improvements were installed and the rate of natural increase began to climb after 1950, for reasons explained below, **Kivalina's** population began to grow vigorously. Today, for the first time in a century, the area's population is again approaching the size of the traditional **Kivalinigiut** society.

At every decennial census since 1939, **Kivalina** has registered a population gain, rising from 98 persons in 1939, to 188 by **1970**, and 241 by the 1980 Census. Subsequent Alaska Department of Labor estimates also show growth in each year between 1980 and 1985. If the 1980 Census and 1985 Department of Labor population figures are accurate, the rate of growth in that recent five year period exceeds that of any period since the turn of the century.

B. POPULATION COMPOSITION

Kivalina persists as a predominantly Alaska Native community, exhibiting traditional demographic patterns. According to the **1970** Census, 97 percent of the population was Native and by 1980, 98 percent.

Beginning in the **1950s**, better health care and improved environmental conditions began to have a dramatic effect upon the community's vitality. **Saario**, writing in **1966**, described the positive impact of better health conditions on **Kivalina's** population dynamics.

"Medical care has also affected the composition of the population. Tuberculosis has been brought under control, and the tragic decimation of the population by diseases introduced by the white man has been brought to a gradual halt. The balance, in fact, has begun to swing in the opposite direction. Older members of the community live **longer**, and the death rate of infants, although still comparatively high, has been reduced. **In** the past, many infants died of upper respiratory disorders, primarily pneumonia. Although many infants **still** become **ill**, the use of penicillin and other antibiotics has reduced the mortality rate appreciably."

Data collected by **Saario** on births and deaths between 1955 and 1959 validate his analysis. In five years, there were 29 births, for a very high annual birth rate of 56.2 per 1,000. Infant mortality was severe, five infant deaths from respiratory infections, but reduced from previous levels. The net natural increase was 22 persons.

The detailed population data for **Kivalina** indicate that its composition is comparatively more symmetric and vigorous than most villages. Unlike many communities, the split between males and females remained relatively

TABLE 155
BIRTHS AND DEATHS
KIVALINA
1955 - 1959

	<u>Births</u>	<u>Deaths</u>		<u>Total</u>	<u>Net Increase</u>
		Adult	Infant		
1955	6	0	0	0	6
1956	2	1	2	3	-1
1957	11	0	1	1	10
1958	2	1	0	1	1
1959 (Novel)	8	0	2	2	6
<u>TOTAL</u>	<u>29</u>	<u>2</u>	<u>5</u>	<u>7</u>	<u>22</u>

Source: **Saario**, 1966.

balanced between 1959 and 1980. The 1980 data fail to show signs of the typical heavy selective emigration of young females. According to the 1980 Census, the ratio of single males to single females 15 years of age and older was only 1.2 to 1.0, lower than every study community except **Nikolski** (0.6 to 1.0) and Scammon Bay (1.17 to 1.0).

The median age, 18.5 years in 1959, fell to 16.7 years by 1970, another sign of a particularly robust population. The median age rose to 20.2 years in 1980, among the youngest of the study communities. Contrary to the general trend, in the 1985 Permanent Fund dividend recipient records, **Kivalina's** median age (21.1) showed little further advance, further evidence that the community was maintaining a high rate of natural increase.

TABLE 156
POPULATION COMPOSITION
KIVALINA
1959

<u>Age</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Infants	1	5	6
1 - 10	22	23	45
11 - 20	19	9	28
21 - 30	14	6	20
31 - 40	9	10	19
41 - 50	7	2	9
51 - 60	3	4	7
61 - 70	3	4	7
71 - 80	0	0	0
81 - 90	0	1	1
90+	1	0	1
<u>TOTAL</u>	<u>79</u>	<u>64</u>	<u>143</u>
<u>Median Age</u>	<u>19.9</u>	<u>16.0</u>	<u>18.5</u>

Source: Saario and Kessel.

The data sources related to population mobility suggest that, in contrast to **pre-contact** settlement patterns, residents of modern **Kivalina** are now as a group strongly attached to their community. As of 1974, according to the .2(C) Report's data on residency of ANCSA Native enrollees, very few **Kivalina** enrollees lived elsewhere and few of **Kivalina's** Native residents were enrolled to another village. These figures suggest that, to that time, **Kivalina's** demography was comparatively static and closed. This picture is reinforced by 1980 Census data on previous (1975) residency. **Kivalina** showed an above average percentage (80 percent) of its 1980 residents living in the same house as in 1975.

TABLE 157
POPULATION COMPOSITION
KIVALINA
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	Male	Female	Total	Male	Female	Total
Under 5 years	19	13	32	1	0	1
5 - 14	25	30	55	0	0	0
15 - 24	14	16	30	1	0	1
25 - 34	11	9	20	2	1	3
35 - 44	8	4	12	0	0	0
45 - 54	8	8	16	0	0	0
55 - 64	3	2	5	0	0	0
65 and over	5	8	13	0	0	0
<u>TOTAL</u>	<u>93</u>	<u>90</u>	<u>183</u>	<u>4</u>	<u>1</u>	<u>5</u>
<u>Median Age</u>	<u>17.1</u>	<u>16.6</u>	<u>16.7</u>			

<u>Age Range</u>	<u>Total</u>		
	Male	Female	Total
Under 5 years	20	13	33
5 - 9	15	18	33
10 - 14	10	12	22
15 - 19	11	13	24
20 - 24	4	3	7
25 - 29	5	8	13
30 - 34	8	2	10
35 - 39	4	0	4
40 - 44	4	4	8
45 - 49	5	5	10
50 - 54	3	3	6
55 - 59	3	1	4
60 - 64	0	1	1
65 and over	5	8	13
<u>TOTAL</u>	<u>97</u>	<u>91</u>	<u>188</u>
<u>Median Age</u>	<u>16.8</u>	<u>16.1</u>	<u>16.1</u>

Note: Native is defined as Aleut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 158
POPULATION COMPOSITION
KIVALINA
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	10	16	26	1	1	2	11	17	28
5- 9	18	11	29	0	0	0	18	11	29
10 - 14	18	12	30	0	0	0	18	12	30
15 - 19	14	19	33	0	0	0	14	19	33
20 - 24	10	14	24	1	1	2	11	15	26
25 - 29	9	14	23	0	0	0	9	14	23
30 - 34	14	4	18	0	0	0	14	4	18
35 - 39	5	2	7	0	0	0	5	2	7
40 - 44	6	3	9	0	0	0	6	3	9
45 - 49	6	1	7	0	0	0	6	1	7
50 - 54	5	4	9	0	0	0	5	4	9
55 - 59	3	5	8	0	0	0	3	5	8
60 - 64	3	3	6	0	0	0	3	3	6
65 - 69	3	1	4	0	0	0	3	1	4
70 - 74	0	0	0	0	0	0	0	0	0
75 and over	1	3	4	0	0	0	1	3	4
<u>TOTAL</u>	<u>125</u>	<u>112</u>	<u>237</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>127</u>	<u>114</u>	<u>241</u>
<u>Median Age</u>	<u>21.5</u>	<u>19.6</u>	<u>20.2</u>				<u>20.8</u>	<u>19.0</u>	<u>20.1</u>

source : U.S. census.

TABLE 159

MARITAL STATUS, BY SEX
PERSONS 15 YEARS AND OLDER
KIVALINA
1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	36	30
Married	40	38
Separated	0	0
Widowed	0	0
Divorced	4	4
<u>TOTAL</u>	<u>80</u>	<u>74</u>

Source: 1980 Census.

TABLE 160

HOUSEHOLD TYPE AND RELATIONSHIP
KIVALINA
8

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	34	14.1%
Spouse	29	12.0
Other Relatives	167	69.3
Non-Relative	7	2.9
Sub-Total	237	98.3
In Non-Family Household		
Male Householder	2	.9
Female Householder	1	.4
Non-Relative	1	.4
Sub-Total	4	1.7
In Group Quarters		
Inmate of Institution		
Other		
Sub-Total		
<u>TOTAL</u>	<u>241</u>	<u>100.0%</u>

Source: 1980 Census.

TABLE 161
 PERMANENT FUND DIVIDEND RECIPIENTS
KIVALINA
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4 "		30	32	40
5 - 9			35	30
10 - 14			27	32
15 - 19			29	29
20 - 24			24	25
25 - 29			26	21
30 - 34			19	16
35 - 39			15	18
40 - 44			9	13
45 - 49			9	9
50 - 54			8	9
55 - 59			7	10
60 - 64			7	8
65 - 69			3	5
70 - 74			4	4
75 & over			4	3
Unknown	1	0	0	0
<u>TOTAL</u>	<u>237</u>	<u>250</u>	<u>258</u>	<u>272</u>

Note: 1982 age breakdown: 0-17 - 101; 18-27 - 50; 28-37 -29; 38-47 - 20; 48-57 - 16; 58-67 - 11; 68-77 - 7; **78+** - 2; Unknown - 1; Total - 237.

1983 age breakdown as follows: 0-4 - 30; 5-17 - 75; 18-27 - 50; 28-37 - 40; 38-47 - 19; 48-57 - 17; 58-67 - 11; 68-77 - 6; 78+ -2; Unknown - 0; Total - 250.

Source: Alaska Department of Revenue.

The overall population profile which emerges of **Kivalina**, at least as of 1980, is that it remained a relatively well balanced and robust population, comparatively undisturbed by the population turnover and migration that impaired the demographic and social stability of less traditional villages.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Saario noted that by the late 1950s, "almost all the inhabitants of **Kivalina** have cash income from summer or local employment, welfare, unemployment compensation, or sale of natural products." **Saario** compiled data on sources of local income that provide a snapshot of work patterns in 1959. His survey data showed that wage earnings accounted for about 70 percent of villagers' cash income, with another 5 percent contributed by handicrafts. The balance of income stemmed from welfare (15 percent) and unemployment compensation (12 percent). Of particular interest is that, even at that date, summertime earnings outside the village accounted for half the earned income.

As **Saario** explains, by 1959 it was already common for **Kivalina** men to pursue summer work in Kotzebue (22 local men worked in Kotzebue in 1960) and in Fairbanks area mining operations. In later years, this same pattern reappears in summertime firefighting employment. Perhaps, **Kivalina** residents are more easily able to adjust to summertime work patterns because local subsistence activities are limited at that time of year and thus present minimal conflict with cash employment.

TABLE 162
SOURCES OF INCOME
KIVALINA
1959

<u>Income Source</u>	<u>Amount</u>	<u>Percent</u>
Summer employment		
Outside village	\$13,868	33.1%
Within village	4,390	10.5
Annual local employment	9,290	22.2
Welfare		
State	5,699	13.6
Bureau of Indian Affairs	674	1.6
Unemployment	4,957	11.8
Natural products	2,203	5.3
Other	850	2.0
<u>TOTAL</u>	<u>\$41,931</u>	<u>100.0%</u>

Source: **Saario**, 1966.

In this regard it is interesting and surprising to note that some sixteen years later **Kivalina** outranked **all** other study communities in the percentage (16.8 percent) of its Native membership which worked on the Trans Alaska Pipeline construction project. In fact, **Kivalina** had the highest participation rate of all communities in the six Native corporate regions covered by this study and more than double the rate for all Natives (7.3 percent). Those data suggest that in the mid-1970s, **Kivalina** residents were again able to do work stints outside their village and region and still stay attached to their home community. If that pattern still holds, then **Kivalina** residents may be especially well positioned to work in the Red Dog mine operations or similar resource development industries without impairing the community's enduring population base.

The official sources of employment data for recent years seem hopelessly at odds. The April 1970 Census reported that 40 persons were employed at **Kivalina**, an implausibly high figure when compared with a combined male (36) and female (26) population of 62 persons between 20 and 60 years of age. Allegedly, 11 persons were employed in manufacturing, which perhaps meant handicrafts.

The 1980 Census counted 47 employees at **Kivalina**. By comparison, the Alaska Department of Labor's average annual covered employment for **Kivalina** in 1980 was 15 persons. For those years since for which data is available (1981 and 1985), the Department of Labor's employment counts were 13 and 14 jobs respectively, mostly in local government.

Seemingly the best recent figures on Kivalina employment derive from the NANA job survey done around 1984. That survey listed by employer a total of 31 positions at **Kivalina**. The public sector accounted for 24 positions, or about 77 percent of the listed jobs. The Northwest Arctic School District was the largest single employer, with 17 jobs. This latter figure suggests that the discrepancy between the NANA survey and the Department of Labor employment count may result from School District employment at **Kivalina** being attributed to the District's Kotzebue headquarters.

Unfortunately, there are no current published data on out of village work patterns of **Kivalina** residents.

TABLE 163
 SELECTED LABOR FORCE DATA
 KIVALINA
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	0	0	0	0	0
Civilian Employed	22	22	25	22	47
Civilian Unemployed	13	2	13	2	15
Not in Labor Force	36	38	36	42	78
Labor Force Participation Rate	49.0%	38.0%	51.0%	36.0%	44.0%
Unemployment Rate: 1980	37.1%	8.3%	34.2%	8.3%	24.2%
1970	*	*	0.0%	0.0%	0.0%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	0	4
Manufacturing	11	0
Transportation	0	4
Communications	5	0
Trade	5	2
Finance, Insurance & Real Estate	0	2
Services	14	26
Public Administration	5	6
Other	0	3
<u>TOTAL</u>	<u>40</u>	<u>47</u>

* Data missing or suppressed.

Source: U. S. Census, 1980.

TABLE 164
COVERED INDUSTRY EMPLOYMENT
KIVALINA AREA
1980 - 1986

<u>Industry Classification</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Mining	0	0	0	0	0	0	0
Construction	0	0	0	0	0	0	0
Manufacturing	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0
Trade	*	*	*	*	*	*	*
Finance, Insurance and Real Estate	0	0	0	0	0	0	0
Services	*	*	*	*	*	*	*
Government	9	8	6	9	12	9	10
Federal	0	0	0	0	0	0	0
State	0	0	0	0	0	0	0
Local	9	8	6	9	12	9	10
Miscellaneous	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>15^a</u>	<u>13</u>	*	*	*	*	<u>14</u>

* Figures withheld to comply with disclosure regulations.

^a Prorated from six months of data.

Source: Alaska Department of Labor.

TABLE 165

KIVALINA JOB LIST
c. 1984

<u>Employer</u>	<u>Employees</u>
Bering Air	1
Baker Aviation	1
City of Kivalina	4
Maniilaq Association	1
Maniilaq Manpower	2
Kivalina Native Store	4
Ryan Air	1
Northwest Arctic School District	17
<u>TOTAL</u>	<u>31</u>

Source: NANA Region Career Survey, undated (c. 1984).

NOME

A. PAST POPULATION TRENDS

Human habitation of the Nome area extends back for 4,000 years, but Nome's settlement history effectively begins in 1898 with its establishment as a gold mining camp. Before that time, the Nome vicinity was apparently only lightly occupied, without noteworthy permanent settlements. Hrdlicka's survey of Native settlements along the Western coast of Alaska makes this passing reference to **Nome**: "Probably small native village at this site in the past. Now principal white settlement in western Alaska. King Island, Diomed, and some **Wales** natives reside on the outskirts during summer."

Nome lacked the natural assets attractive to large-scale human settlement with one exception -- gold -- an exception that compensated for all other shortcomings. As **Elianna** (1983) explains matters, Nome's relatively restricted resource base, compounded by unfavorable sea ice conditions and ocean exposure, made it unfit for a traditional **Inupiat** settlement of any size or permanence. Burch (1975) estimated that the indigenous population scattered along the coastal stretch between Nome and the Fish River/Golovin Bay drainage 80 miles to the east totaled about 900 persons in 1850. Ray (1964) estimated a 19th century population of about 320 persons between Safety Sound and Cape Douglas, with about half that population living on King or Sledge Islands. By either estimate, the Nome area's 19th century population was minimal.

TABLE 166
 POPULATION ESTIMATES
 NOME
1880 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1880	20		
1900	12,488		
1910	2,600		
1915		1,000	Osborn (per Koutsky)
1920	852		
1929	1,213		
1939	1,559		
1950	1,876		
1957		1,750	Ray, 1959
1960	2,316	2,320	Ak. Department of Labor (July)
1967		2,450	Federal Field Committee - 1,534 Native; 916 non-Native
1968		2,800	Alaska Area Native Health Service - 1,850 Natives
1969		2,800	Federal Field Committee - 1,950 Native; 850 non-Native
1970	2,357	2,380	Ak. Department of Labor (July)
1975		2,512	U. S. Census Bureau
1975		2,380	El 1 anna
1976		2,542	U. S. Census Bureau
1976		2,605	CH2M Hill
1978		2,892	City of Nome (July)
1979		2,842	Pol icy Analysts, Ltd.
1980	2,301		
1980	2,430*	2,892	Dept. Communi ty/Regi onal Affai rs
1981	3,039*	3,039	Dept. Communi ty/Regi onal Affai rs
1982		3,416	U. S. Census Bureau (Jul y)
1982	3,430*	3,430	Dept. Communi ty/Regi onal Affai rs
1983	3,102*	3,620	Dept. Communi ty/Regi onal Affai rs
1984	3,146*	3,732	Dept. Communi ty/Regi onal Affai rs
1985	3,191*	3,876	Dept. Communi ty/Regi onal Affai rs
1986		3,876	Dept. Communi ty/Regi onal Affai rs
1987		3,876	Dept. Communi ty/Regi onal Affai rs

-
- * Alaska Department of Labor estimates of July 1 population derived using U.S. Census methodology. Where these figures are the same as those cited by the Department of Community and Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: U.S. Census (1880 - 1980 figures).
Alaska Department of Labor (1980 - 1985 figures).

TABLE 167
POPULATION TRENDS
NOME
1900 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1900	12,488		
1910	2,600	-79.2	
1920	852	-67.2	
1930	1,213	42.4	
1939	1,559	28.5	
1950	1,876	20.3	
1960	2,316	23.5	
1970	2,357	1.8	
1980	2,301	-2.4	
1981	3,039		32.1 ^a
1982	3,430		12.9 ^a
1983	3,102		-9.5
1984	3,146		1.4
1985	3,191		1.4

^a The boundaries recognized for Nome in the 1980 Census were smaller than the actual legal boundaries. This was corrected for the 1981 counts. In 1982, Nome annexed the "unincorporated place" of Icy View which had 210 residents. The Nome population estimates since 1982 reflect both the corrected boundaries and the annexation of Icy View.

Sources: U.S. Census (1900 - 1980 figures).
Alaska Department of Labor (1981 - 1985 figures).

The 1880 Census identified a Native camp of 20 persons called **Chitnashuak (Sitnasuak)** at the mouth of the Snake River and another camp of 10 persons at the mouth of the Nome River. At that time, larger traditional villages were also counted at Cape Nome (60 persons) east of Nome, on Sledge Island (50 persons) and on King Island (100 persons).

By and large, Euro-American visitors combing the Bering Straits/Norton Sound region in search of whales, furs, ivory and other Native goods bypassed the Nome vicinity. Not only was Nome bereft of subsistence resources and Native trade goods but, at that time, it did not offer entry to any local or hinterland markets, as did St. Michael and **Unalakleet**.

Even so, the passage of whalers, traders and others through the region left their mark. Increasingly, after the **mid-1850s**, these commerce-minded visitors put stress on important food species (whale, walrus, caribou) and introduced infectious diseases. These events, by causing population losses and stirring people to relocate, definitely altered the indigenous social landscape of the Norton Sound coastal region. However, in the absence of large settlements at Nome or elsewhere, the effects were diffused, with no particular localized focus upon Natives at Nome.

Nome owes its modern origins to the discovery of gold on Anvil Creek, a Snake River tributary near Nome in 1898, a moment when circumstances were ripe for rampant gold fever. Restless prospectors, disappointed with their luck in the Kobuk region and the Yukon, hurried to Nome. Stampedeers wintering over at St. Michael en route to the **Klondike** hastened instead to

be first to Nome. Then, word that the very beach sands underfoot were gold-bearing accelerated the torrent of stampedeers shipping to Nome. In the month of June 1900, a federal revenue cutter captain estimated that 15,000 people and 600,000 tons of freight were landed at Nome (Cole, 1984). Nome was suddenly Alaska's biggest town, briefly attaining a size (1900 U.S. Census - 12,488 persons) that no other Alaska community would top for another fifty years. However, Nome's heyday was fleeting. The easy pickings were soon exhausted and most miners left as abruptly as they came.

The gold rush was a short but formative episode that left a lasting imprint on emergent settlement patterns. By 1910, Nome's population had fallen to 2,600. Then, a combination of the wartime call to arms, the collapse of the gold industry and the 1918-1919 influenza epidemic further reduced Nome's population to 852 persons by 1920. The epidemic was particularly pitiless for Natives, killing 200 of an estimated 250 Eskimos in the Nome area. But Nome survived as the largest settlement in the Bering Straits-Norton Sound region and by then was permanently entrenched as the embryonic governmental outpost and distribution center for the region, overcoming its substantial locational handicaps. Cole puts the perversity of this feat in perspective:

"Nome City, at the mouth of the Snake River, began as the campsite of the first prospectors who arrived in the area in the fall and early winter of 1898. By most of the laws of nature, Nome should never have been the site for a port city. There was no safe harbor for ships at the mouth of the Snake River, and it was dangerous to land or to take a small boat inside the mouth of the river. Large ships would be forced to anchor several miles offshore and unload their passengers and freight to lighters and shallow-draft barges that could be run up on the beach. In the years to come many men would drown for the lack of a safe harbor at Nome, and because of its exposed location every storm that swept across Norton Sound lashed the city as if it were a sinking

ship. However, that mattered little to the men who were looking for gold in 1898. Because the site of Nome was so close to the rich claims on Anvil Creek and the other tributaries of the Snake River, it seemed at the time like a good location for a **townsite.**" Cole, 1984, p.29.

During the decades between World War I and World War II, **Nome's** fortunes revived. Advances in mining equipment and efficiency helped restore modest profitability to Nome's mining industry, but with a reduced workforce. Other events confirmed Nome's role as an emergent regional center. Nome was a comfortable first choice as home for the governmental apparatus increasingly penetrating Northwest Alaska. Nome's aspiration to become an international air traffic crossroads faltered, but Nome did get established as the regional center for this new mode of transportation. From its 1920 low of 852, the town's population rose to 1,213 by the 1930 Census and 1,559 by 1939.

World War II brought a sudden appreciation of Western Alaska's strategic position **vis-a-vis** modern warfare in Europe and in the Pacific. Construction of an air base was begun at Nome in 1941, along with a defensive military garrison. After Pearl Harbor, rumors of a planned Japanese invasion prompted a massive airlift of troops and war materiel to fortify Nome. The Alaska Territorial Guard was mobilized, with headquarters at Nome. **Nome's** air base became part of the arctic air route ferrying Lend-Lease planes, arms and supplies to aid the Russian forces against the German army on the eastern front. Coincidentally, wartime manpower demands drew a significant influx of Natives into Nome and into military service. The post-War cold war military strategy resulted in a centralization of defense forces from remote installations like Nome into

Anchorage and Fairbanks. Nome lost its military function and **the** air base was converted into the municipal airport.

For the three official Censuses between 1960 and **1980**, Nome's population remained almost unchanged: 1960 - 2,316 persons; 1970 - 2,357 persons; and 1980 - 2,301 persons. (It should, however, be noted that the **1980 Census** appears to have **undercounted Nome's** population by perhaps 400 persons). But beneath this superficial stability, **Nome's** economic character and population composition was undergoing long-lasting changes. The mining industry had been virtually shut down by the **War**, until the deregulation of gold in 1974 boosted gold prices and once more renewed interest in the Nome area's mining potential. Nome especially benefitted from Alaska's era of governmental expansionism in the late 1970s and early **1980s**. Government expenditures and employment in Nome and throughout the region grew rapidly. Many community services formerly delivered directly by federal agencies were transferred or contracted to local providers. Proposed offshore oil exploration stirred local controversy, brought some temporary employment and whetted appetites for a new "black gold" rush in some sectors of the community.

B. POPULATION COMPOSITION

Unfortunately, regular statistical data on Nome's racial composition prior to the late 1960s is hard to obtain. In any case, it is clear that Nome's population was overwhelmingly non-Native in the decades just after its founding, although a small Native population, from time to time reduced by

epidemics, was always present. The 1939 Census reported 550 Alaska Native residents or about 35 percent of the total population. As noted above, wartime employment opportunities drew some Natives to Nome. Then, in post-War years, some of the economic functions (mining, defense) that had attracted non-Natives to Nome were curtailed while Natives from other villages in the region increasingly sought to take advantage of Nome's superior services and employment opportunities.

As a result, by the late **1960s**, Nome's Native population substantially outnumbered its non-Native population. The relocation of King Isidore and villagers to Nome was a major factor in this shift. In 1967, the Federal Field Committee estimated a total population of 2,450 persons, including 1,534 Natives (62.6 percent) and 916 non-Natives (37.4 percent). However, the flow of Natives to Nome seems to have waned thereafter. The 1970 Census showed a similar split between Natives (62.5 percent) and non-Natives (37.5 percent). Subsequent population counts in 1975 (**Ellanna**, 1976) and 1980 (**U.S.Census**) tabulated Native shares of 60.7 percent and 58.5 percent respectively. More recent data on the racial composition of Nome's population was not found.

The trend in racial composition between 1967 and 1980, along with the number of Native residents counted, confirms that during that period Nome was not attracting significant net immigration of Natives from other communities in Northwest Alaska. In 1970, the Census counted 1,554 Native residents; **Ellanna's** 1975 census counted 1,444 Natives; and the 1980 Census counted 1,347. Even allowing for some undercounting by the 1980 Census,

the data do not support the notion of large net influx of villagers into Nome between 1970 and 1980. (A 1981 City census conducted to standards established by the Alaska Department of Labor counted 3,039 residents, 738 persons more than the 1980 Census, although part of the difference is due to the City's census following corrected, more encompassing city boundaries). All in all, it appears that the **1980** Census did undercount Nome's population, but it is not clear whether the under-enumeration was uniform or selective of certain population sub-groups.

An alternative measure of Native concentration in Nome supports the same conclusion about recent **intra-regional** migration trends. According to the 1970 Census, the total Alaska Native population in the Nome census division was 4,517 persons, of whom 1,554 or 34.4 percent lived in Nome. The **1980** Census reported a total regional Native population of **5,174** persons, of whom **1,347** or 26.0 percent **lived** in Nome. Thus, the share of the region's Native population living in Nome appears to be declining. Again, allowing for the Census enumeration, these data counter the supposition that the region's Native population is gravitating to Nome.

For contrast, it may be noted that three other regional centers in Western Alaska (Kotzebue, Bethel and Dillingham) each increased their share of their regions' Native population between 1970 and 1980. Barrow was an exception to this trend for an uncommon reason: many Barrow residents relocated to resettle the villages of Atkasuk, Nuiqsut and Point Lay.

TABLE 168

POPULATION COMPOSITION BY SEX AND AGE
CITY OF NOME

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	76	74	150
5 - 9	76	70	146
10 - 14	45	80	125
15 - 19	50	45	95
20 - 24	77	60	137
25 - 29	93	62	155
30 - 34	88	69	157
35 - 44	120	76	196
45 - 54	107	53	160
55 - 64	101	27	128
65 - 74	60	20	80
75 and over	22	2	24
Not reported	4	2	6
TOTAL	919	640	1,559
<u>Median Age</u>	<u>32.4</u>	<u>24.3</u>	<u>29.1</u>

Source: U.S. Bureau of the Census.

TABLE 169

POPULATION COMPOSITION BY RACE
CITY OF NOME
1939

<u>Race</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
White	648	342	990
Native	259	291	550
Other	12	7	19
TOTAL	919	640	1,559

Source: U.S. Bureau of the Census.

TABLE 170

POPULATION COMPOSITION BY SEX AND AGE
 NOME
 1960

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	213	196	409
5 - 14	301	287	588
15 - 24	167	165	332
25 - 34	146	134	280
35 - 44	127	132	259
45 - 54	120	101	221
55 - 64	89	49	138
65 and over	49	40	89
<u>TOTAL</u>	<u>1,212</u>	<u>1,104</u>	<u>2,316</u>
<u>Median Age</u>	<u>20.5</u>	<u>19.2</u>	<u>19.9</u>

Source: U.S. Bureau of the Census.

TABLE 171
POPULATION COMPOSITION
NOME
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	118	88	206	45	46	91
5 - 14	231	236	467	103	111	214
15 - 24	133	133	266	68	69	137
25 - 34	104	91	195	75	75	150
35 - 44	63	73	136	72	49	121
45 - 54	57	60	117	70	50	120
55 - 64	43	59	102	46	20	66
65 and over	37	28	65	25	10	35
<u>TOTAL</u>	<u>786</u>	<u>768</u>	<u>1,554</u>	<u>504</u>	<u>430</u>	<u>934</u>
<u>Median Age</u>	<u>18.3</u>	<u>19.5</u>	<u>18.9</u>	<u>29.9</u>	<u>23.5</u>	<u>26.7</u>

<u>Age Range</u>	<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	163	134	297
5 - 9	163	171	334
10 - 14	171	176	347
15 - 19	126	131	257
20 - 24	75	71	146
25 - 29	94	89	183
30 - 34	85	77	162
35 - 39	73	73	146
40 - 44	62	49	111
45 - 49	74	58	132
50 - 54	53	52	105
55 - 59	59	48	107
60 - 64	30	31	61
65 and over	62	38	100
<u>TOTAL</u>	<u>1,290</u>	<u>1,198</u>	<u>2,488</u>
<u>Median Age</u>	<u>21.5</u>	<u>19.5</u>	<u>20.3</u>

Note: Native is defined as Aleut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 172
 POPULATION COMPOSITION BY SEX AND AGE
 NOME
 1975

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 5 years	166	160	326
6 - 10	138	138	276
11 - 15	123	137	260
16 - 20	123	129	252
21 - 25	122	188	310
26 - 30	124	113	237
31 - 35	89	80	169
36 - 40	75	53	128
41 - 45	57	55	112
46 - 50	52	40	92
51 - 55	37	39	76
56 - 60	31	38	69
61 - 65	38	29	67
66 - 70	19	21	40
71 - 75	14	8	22
76 and over	6	8	14
<u>TOTAL</u>	<u>1,216</u>	<u>1,164</u>	<u>2,380</u>
<u>Median Age</u>	<u>23.4</u>	<u>21.5</u>	<u>22.2</u>

Racial Composition: Alaska Native - 1,444 persons or 60.7 percent;
 Non-Native - 936 persons or 39.3 percent.

Source: Ellanna, 1976.

TABLE 173
POPULATION COMPOSITION
NOME
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	74	64	138	35	33	68	109	97	206
5 - 9	89	75	164	29	26	55	118	101	219
10 - 14	81	77	158	36	37	73	117	114	231
15 - 19	70	78	148	44	25	69	114	103	217
20 - 24	68	67	135	48	45	93	116	112	228
25 - 29	63	55	118	63	76	139	126	131	257
30 - 34	44	36	80	73	44	117	117	80	197
35 - 39	32	36	68	55	38	93	87	74	161
40 - 44	32	36	68	28	27	55	68	54	122
45 - 49	22	20	42	32	19	51	54	39	93
50 - 54	20	25	45	28	27	55	48	52	100
55 - 59	16	23	39	22	15	37	38	38	76
60 - 64	18	22	40	11	9	20	29	31	60
65 - 69	20	27	47	11	4	15	31	31	62
70 - 74	15	10	25	5	2	7	20	12	32
75 and over	18	14	32	5	3	8	23	17	40
<u>TOTAL</u>	<u>682</u>	<u>665</u>	<u>1,347</u>	<u>533</u>	<u>421</u>	<u>954</u>	<u>1,215</u>	<u>1,086</u>	<u>2,301</u>
<u>Median Age</u>	<u>22.0</u>	<u>22.9</u>	<u>22.4</u>	<u>30.8</u>	<u>28.0</u>	<u>29.3</u>	<u>26.3</u>	<u>25.6</u>	<u>26.0</u>

source: U.S. census.

It is plausible that Nome's population growth since 1980 has further diluted the Native share of the town's total population. Much of the post-1980 job growth has been in public service, mining and other sectors which tend to attract non-Native newcomers. It may be necessary to wait on the results of the 1990 Census to confirm just what the recent trend in Nome's racial composition has been.

Nome's failure as a regional center to draw the typical **influx** of Native villagers can perhaps be traced to the region's loose geographic integration and an apparent **socio-political** cleavage between historically white-dominated Nome and the Native villages. Some Bering Straits villages are comparatively isolated (**Gambell, Savoonga, Diomed**) and some are closely linked to other regional (**Kotzebue**) or sub-regional (**Unalakleet**) centers.

The latent cleavage between Nome and the hinterland villages of the Bering Straits/Norton Sound region was expressed in the 1982 decision to transfer the Bering Straits **School** District headquarters to the strongly traditional village of **Unalakleet**, despite its peripheral location. The City of Nome operates its own independent school system, while the Bering Straits School District serves all of the region's villages. This division of interests is similarly reflected in the decisions of the City of Nome and the **villages** to establish separate coastal management programs, with the **villages'** program based at **Unalakleet**.

The 1974 2(C) Report's data on Native enrollment and residency provide yet another indication that Nome has not been a magnet for the region's village population. As of 1974, there were nearly twice as many Alaska Natives who were enrolled to Nome but living elsewhere (811 persons) as were living in Nome but enrolled elsewhere (434 persons). These figures suggest a substantial net emigration of Natives from Nome in the preceding decades.

The 1980 Census data on migration patterns are inconclusive about Native population movements but suggest a relatively high rate of turnover in Nome's non-Native population. About 30 percent of Nome's 1980 residents had lived outside the Nome census division five years previously, with 10 percent living elsewhere in Alaska and another 20 percent in a different state or abroad. Presumably, most of these immigrants from outside the census division were non-Native. Ellanna (1983) reports findings from a 1982 Division of Subsistence survey at Nome which points to similar conclusions about population turnover. The survey found that the average length of residency was 26.5 years for Native households, but only 9.6 years for non-Native households. The survey also found that slightly more than half Nome's 1982 population originated from inside the Bering Straits region (Nome - 20.2 percent; other Northwest Alaska villages - 32.7 percent), with the balance coming from outside (Anchorage/Fairbanks - 11.5 percent; other Alaska - 5.8 percent; outside Alaska - 29.8 percent).

Population composition by sex and age is distinctively different for Nome's Native and non-Native residents. In three Censuses over a four-decade span (1939, 1970, 1980), the sex distribution of the Native

population has been fairly well balanced and *stable*. In the two most recent Censuses, for both of which detailed age and sex data are available, the male/female population distributions are unusually symmetrical. The median age for the Native population was relatively young in 1970 (18.9 years), increasing to 22.4 years according to the 1980 Census.

By comparison, the non-Native population has tended to be older and predominantly **male**, especially **in** the older age groups. If Census figures are accurate, the proportion of the non-Native population which was male increased from 54.0 to 55.9 percent between **1970** and **1980**. This imbalance is reflected in differences in marital status. In 1980, there were 400 single males 15 years and older, but only 251 females, a ratio of 1.59 males per female. These figures are for the total population but the age composition data indicate that the imbalance is **largely** attributable to the non-Native population.

Recent vital statistics support two important conclusions: that natural increase contributed more to Nome's population growth than immigration, at least through the 1970s and early 1980s; and that birth rates in the Nome area, after a decline in the 1960s and 1970s, are again rising.

For the Nome census division, the Alaska Department of Labor reported a birth rate of 272 per 1,000 for the 1970-1980 decade, equivalent to an average annual birth rate of 24.3 per 1,000 for that period. For the next five years, the birth rate ranged between 28.3 per 1,000 and 31.0 per 1,000, indicating higher birth rates than prevailed in the 1970s. The

TABLE 174

MARITAL STATUS, BY SEX
PERSONS 15 YEARS AND OLDER
NOME
1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	400	251
Married	381	371
Separated	19	20
Widowed	17	65
Divorced	54	67
<u>TOTAL</u>	<u>871</u>	<u>774</u>

Source: 1980 Census.

TABLE 175

HOUSEHOLD TYPE AND RELATIONSHIP
NOME
1980

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	476	20.7%
Spouse	348	15.1
Other Relatives	1,069	46.5
Non-Relative	51	2.2
Sub-Total	1,944	84.5
In Non-Family Household		
Male Householder	151	6.6
Female Householder	70	3.0
Non-Relative	93	4.0
Sub-Total	314	13.6
In Group Quarters		
Inmate of Institution	16	.7
Other	27	1.2
Sub-Total	43	1.9
<u>TOTAL</u>	<u>2,301</u>	<u>100.0%</u>

Source: 1980 Census.

TABLE 176
 BIRTHS, BY RACE OF MOTHER
 NOME
 1977 - 1985

<u>Year</u>	<u>Native</u>	<u>Non-Native</u>	<u>Total</u>
1977	47	17	64
1978	38	23	61
1979	27	17	44
1980	54	28	82
1981	44	34	78
1982	50	30	80
1983	58	34	92
1984	59	29	88
1985	55	33	88

Source: Bureau of Vital Statistics, Alaska
 Department of Health and Social Services.

TABLE 177

POPULATION AND HOUSING
NOME*
1981

<u>Units Per Structure</u>	<u>Total Housing Units</u>	<u>Vacant Housing Units</u>	<u>Households</u>	<u>Population</u>	<u>Average Persons Per Unit</u>	<u>Vacancy Rate</u> %
1 Unit	683	70	613	2,163	3.53	10.25
2 Unit	90	8	82	210	2.56	8.89
3 Unit	30	3	27	60	2.22	10.00
4 Unit	60	3	57	155	2.72	5.00
5 or more	117	11	106	268	2.53	9.40
Mobile Homes	37	2	35	93	2.66	5.41
Trailers	5	2	3	7	2.33	40.00
All Structures Combined	1,022	99	963	2,956	3.20	9.69
Group Quarters				83		
<u>TOTAL POPULATION</u>				<u>3,039</u>		

* 1901 boundaries.

Source: Alaska Department of Labor, City of Nome 1981 Special Census.

TABLE 178

PERMANENT FUND DIVIDEND RECIPIENTS
 NOME
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		295	308	333
5 - 9			281	296
10 - 14			296	324
15 - 19			246	272
20 - 24			273	275
25 - 29			339	365
30 - 34			342	395
35 - 39			278	297
40 - 44			212	232
45 - 49			165	156
50 - 54			105	125
55 - 59			101	108
60 - 64			76	71
65 - 69			46	48
70 - 74			55	50
75 & over			43	55
Unknown	1	13	1	1
TOTAL	<u>3,189</u>	<u>3,219</u>	<u>3,167</u>	<u>3,403</u>

Note: 1982 age breakdown: 0-17 - 1,028; 18-27 - 606; 28-37 - 665; 38-47 - 399; 48-57 - 236; 58-67 - 137; 68-77 - 93; **78+** - 24; **Unknown** - 1; Total - 3,189.

1983 age breakdown: 0-4 - 295; 5-17 - 727; 18-27 - **614**; 28-37 - 67g; 38-47 - 405; 48-57 - 240; 58-67 - 129; 68-77 - 92; 78+ - 25; Unknown-13; Total - 3,219.

Source: Alaska Department of Revenue.

TABLE 179

FINAL ENROLLMENT BY GRADE
NOME
1956/57 - 1986/87

Year	Kind	1	2	3	4	5	6	7	8	9	10	11	12	Ung/ Spec	Tot
1956/57		68	92	66	71	64	58	65	55	50	24	21	10		644
1957/58		94	93	74	57	67	64	62	55	54	37	28	15		700
1958/59		103	70	73	51	57	63	62	54	44	43	19	21		660
1959/60		115	63	82	57	49	59	63	50	38	35	25	14		650
1960/61		88	93	65	72	52	50	58	50	28	28	17	20		621
1961/62		102	72	74	64	59	44	48	37	41	26	26	18		611
1962/63		65	89	69	73	59	57	61	47	30	42	23	25		640
1963/64		74	76	81	71	71	55	61	56	31	28	37	19		660
1964/65		82	80	82	76	70	70	58	58	50	28	28	28		710
1965/66		125	83	48	95	69	46	83	53	44	39	26	28		739
1966/67		97	93	65	66	59	74	69	65	51	43	30	28		740
1967/68		97	68	86	64	69	60	74	62	58	47	34	29		748
1968/69		83	74	100	73	71	49	69	64	56	55	44	30	5	773
1969/70		72	85	77	92	67	69	50	61	58	44	48	40	16	779
1970/71	45	73	66	73	76	79	62	65	52	45	56	32	39	28	791
1971/72	62	45	75	68	64	66	73	61	56	54	43	54	29	37	787
1972/73		62	47	73			62	74	56					13	
1973/74	55	54	63	50	58	65	59	67	71	79	60	72	25	17	817
1974/75	67	65	48	75	51	61	66	58	69	110	80	65	38		853
1975/76	54	73	64	45	68	50	65	65	61	104	91	68	33		841
1976/77	66	58	57	60	45	60	57	73	65	77	81	62	38		799
1977/78	59	74	52	63	58	55	63	59	77	65	57	46	39		767
1978/79	61	64	69	52	58	59	48	67	51	71	60	50	41		751
1979/80	60	58	57	65	56	58	56	44	58	46	50	47	41		696
1980/81	58	52	60	57	61	56	61	61	45	58	44	57	42		712
1981/82	60	55	56	63	58	59	53	63	64	43	49	40	37		700
1982/83	70	56	63	58	72	58	64	53	65	61	54	49	34		757
1983/84	72	67	57	63	62	70	63	68	54	69	52	40	52		789
1984/85	74	52	61	55	65	58	71	64	57	58	66	53	41		775
1985/86*	79	78	64	48	54	60	65	60	69	63	67	67	58		821
1986/87	77	65	55	49	55	56	65	56	62	59	56	45	55		755

* Enrollment includes 45 correspondence students.

Note: Kindergarten enrollment also includes Pre-Kindergarten students in some years.

Source: Alaska Department of Education, Educational Finance and Support Services.

Alaska Department of Labor also estimated, again for the Nome census division, that natural increase for the 1970 to 1980 period was 1,035 persons compared with a net loss through migration of 247 persons.

In the five year period from **1980** to **1985**, the Nome census division gained 792 persons from natural increase and 202 persons from net migration. In sum, for the region as a whole, natural increase has lately been a much more significant contributor to population growth and recently rising birth rates appear to be magnifying its importance. Lacking contrary evidence, it is plausible to extrapolate these trends to the **City** of Nome itself.

Recent data on the number of births at Nome suggest a **clear** upward trend after 1980. In successive years between 1977 and **1985**, the numbers of births reported were 64, **61**, 44, 82, 78, 80, **92**, 88 and 88. However, because of a lack of consistent annual base population figures over these years, it is infeasible to calculate a specific birth rate for the City of Nome.

In the years following the flawed 1980 Census, a wide discrepancy has arisen between Nome population estimates accepted by the Alaska Department of Labor and the Department of Community and Regional Affairs. By 1985, the Department of Labor's estimate was 3,191 persons compared with the Department of Community and Regional Affairs' estimate of 3,876 persons. An examination of trends in school enrollment and Permanent Fund dividend recipients suggest that a figure midway between these two estimates may be most defensible.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

From the outset in 1898, Nome's livelihood relied almost wholly on industry and commerce rather than subsistence. Ironically, once the gold rush era subsided, and especially as more Natives moved to Nome during and after World War II, Nome's population came to rely more upon subsistence as a supplementary source of livelihood.

The following list of businesses operating in Nome by late 1899 gives a vivid sense of the fledgling town's commercial orientation:

1 brewery	2 meat markets
4 wholesale liquor stores	1 boot and shoe store
1 massage artist	1 book and stationery store
6 bakers	3 packers and forwarders
5 laundries	2 dentists
12 general merchandise stores	11 physicians
3 second hand stores	1 mining engineer
4 hotels	2 surveyors
6 restaurants	4 bath houses
6 lodging-houses	1 bank and safe deposit
4 real estate offices	2 printing offices
2 paper-hangers	1 confectionery store
3 fruit and cigar stores	1 blacksmith shop
2 tinshops	1 assay office
4 drugstores	2 contractors and builders
2 photographers	2 hospitals
2 watchmakers	4 barber shops
2 sign-painters	2 clubs

Source: Cole, 1984,

In more recent times, a variety of employment data sources since 1939 document Nome's evolution from basic economic dependency upon the mining industry to basic dependency on government employment, augmented by an expanded trade and services sector.

Just before World War II, the 1939 Census reported that 43 percent of Nome's **workforce** was directly employed in the mining industry. Trade and services together employed about 29 percent of the workforce, with government employing about 6 percent. By the time of the 1967 Nome employment survey (Alaska Consultants, 1968), total employment was **little** changed (743 jobs in 1939 vs. 772 jobs in 1967) but the employment structure had changed radically. There was then virtually no mining employment (less than 3 percent of the total), while **government** had expanded to account for 37 percent of employment. Other economic sectors showed only minor changes in their employment shares.

Both the 1970 and 1980 Censuses failed to distinguish consistently between services and government employment. The extant employment data by industry are consistent with the inference that the employment structure was comparatively static between **1967** and 1980, except for a trend toward added public sector employment. Two other employment data sources independently document a continuing trend toward greater public sector employment. The findings of a **1979** employment survey (Policy Analysts, Ltd., 1980) were generally consistent with the 1980 Census tabulation, but provided detailed information on public employment by federal, State and local governments. This survey apportioned about 6 percent of total employment to the federal government, 17 percent to State government and 18 percent to local government, for a public sector total of 41 percent.

TABLE 180
EMPLOYED WORKERS BY INDUSTRY GROUP
CITY OF NOME

<u>Industry Group</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Agriculture, Forestry and Fishery	4	0	4
Mining	302	15	317
Construction	35	0	35
Manufacturing	14	30	44
Transportation, Communications and Public Utilities	68	8	76
Wholesale Trade	22	5	27
Retail Trade	40	19	59
Finance, Insurance and Real Estate	4	1	5
Services	42	88	130
Government	38	8	46
<u>TOTAL</u>	<u>569</u>	<u>174</u>	<u>743</u>

Source: U.S. Bureau of the Census.

TABLE 181
EMPLOYMENT STATUS OF PERSONS 14 YEARS OLD AND OVER
CITY OF NOME
1939

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Population 14 years old and over	727	434	1,161
Number in labor force	637	189	826
Percent in labor force	87.6	43.5	71.1
Employed	569	174	743
On public emergency work	14	0	14
Seeking work	54	15	69
Not in labor force	90	245	335

Source: U.S. Bureau of the Census.

TABLE 182

EMPLOYED WORKERS BY MAJOR OCCUPATION GROUP
CITY OF NOME

<u>Occupation Group</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Professional workers	37	25	62
Semi-professional workers	10	10	5
Farmers and farm managers	1	0	1
Proprietors, managers, and officials	56	12	68
Clerical, sales and kindred workers	35	29	64
Craftsmen, foremen and kindred workers	101	1	102
Operatives and kindred workers	249	35	284
Domestic service workers	2	31	33
Service workers, except domestic	51	36	87
Farm laborers	1	0	1
Laborers, except farm	26	0	26
<u>TOTAL</u>	<u>569</u>	<u>174</u>	<u>743</u>

Source: U.S. Bureau of the Census.

TABLE 183
 AVERAGE YEAR-ROUND FULL-TIME EMPLOYMENT
 NOME AND IMMEDIATE VICINITY

<u>Industry Classification</u>	<u>Number</u>	<u>Percent</u>	<u>Percent Basic</u>	<u>Basic Number</u>	<u>Secondary Number</u>
Agriculture, Forestry and Fishing	0	0.0	0	0	0
Mining	21	2.7	100	21	0
Contract Construction	30	3.9	0	0	30
Manufacturing	66	8.5	90	59	7
Transportation, Communi- cation & Public Utilities	102	13.2	50	51	51
Trade	123	15.9	25	31	92
Finance, Insurance & Real Estate	15	1.9	10	2	13
Service	126	16.3	50	63	63
Government	289	37.4	55	159	130
Federal	(79)	(10.2)			
State and Local	(210)	(27.2)			
<u>TOTAL</u>	<u>772</u>	100.0	<u>50</u>	<u>386</u>	<u>386</u>

Note: The tabulation of average year-round full-time employment is lower than that of average **annual** employment. If the **substantial** number of casual and part-time workers are averaged, Nome's average annual employment in 1967 is estimated to be 843.

Source: Alaska Consultants, 1968.

TABLE 184

EMPLOYMENT BY INDUSTRY
 NOME
 NOVEMBER 1979 a/

<u>Industry Classification</u>	<u>Full-Time</u>	<u>Part-Time</u>	<u>Full-Time</u>	
			<u>Equivalents</u>	<u>Percent</u>
Mining	25	0	25	2.3%
Construction	10	0	10	.9
Manufacturing	2	3	3.5	.3
Transportation, Communi- cation and Utilities	129	13	135.5	12.7
Trade	148	24	160	14.9
Finance, Insurance and Real Estate Services	24	1	24.5	2.3
	261	17	269.5	25.2
Government	442	54 b/	442	41.3
Federal	(66)	(0)	(66)	(6.2)
State	(185)	(54)	(185)	(17.3)
Local	(191)	(2)	(192)	(17.9)
<u>TOTAL</u>	<u>1,041</u>	<u>114</u>	<u>1,071</u>	<u>100.0</u>

a/ Data collected by an employment survey of all 1 Nome businesses and agencies by George Sherrod and Susan Gorski, November 1979.

b/ Includes 46 uniformed weekend personnel not counted here in civilian employment and 8 Northwest Community College faculty primarily counted elsewhere as full-time employees or not counted here.

Source: Policy Analysts, Ltd., 1980.

TABLE 185
 SELECTED LABOR FORCE DATA
 NOME
 1980

LABOR FORCE STATUS , PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	2	0	6	0	6
Civilian Employed	163	213	483	442	925
Civilian Unemployed	52	29	85	35	120
Not in Labor Force	212	189	274	277	551
Labor Force Participation Rate	50.0%	56.0%	67.0%	63.0%	65.0%
Unemployment Rate: 1980	24.2%	12.0%	15.0%	7.3%	11.5%
1970			16.9%	5.5%	12.2%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	37	48
Manufacturing	13	20
Transportation	74	75
Communications	52	34
Trade	146	146
Finance, Insurance & Real Estate	0	49
Services	248	345
Public Administration	141	166
Other	97	42
<u>TOTAL</u>	<u>808</u>	<u>925</u>

* Data missing or suppressed.

Source: U. S. Census, 1980.

TABLE 186
COVERED INDUSTRY EMPLOYMENT
CITY OF NOME
1980 - 1986

<u>Industry Classification</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Mining	*	*	*	*	100 ^a	62	87 ^b
Construction	22^b	36 ^b	61	75	67 ^b	41	31
Manufacturing	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	120	120	120	124	100	74	77
Trade	148	176	196	195^b	200	202	221
Finance, Insurance and Real Estate	30	36	37	47	45 ^c	61	40
Services	540	517	406	432	446	471	456
Government	606	664	727	835	902	942	927
Federal	98	89	79	88	91	98	93
State	172	186	213	236	236	240	236
Local	336	389	435	511	575	604	598
Miscellaneous	0	*	*	*	*	*	*
<u>TOTAL</u>	<u>1,568</u>	<u>1,671</u>	<u>1,667</u>	<u>1,804</u>	<u>1,860</u>	<u>1,858</u>	<u>1,847</u>
Change from previous year		+9.4%	-0.2%	+8.2%	+3.1%	-0.1%	-0.7%

* Figures withheld to comply with disclosure regulations.

^a Prorated from six months of data.

^b Prorated from nine months of data.

Source: Alaska Department of Labor.

TABLE 187

COVERED INDUSTRY EMPLOYMENT
CITY OF NOME
1980

<u>Industry Classification</u>	<u>Jan-Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>	
Mining	*	*	*	*	*	*	*	*	*	*	*	
Construction	*	*	*	19	20	22	22	24	26	22	23	34
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	
Transportation, Communication and Public Utilities	92	92	90	94	115	152	147	142	137	142	121	119
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	
Retail Trade	145	142	153	144	144	144	147	150	163	153	150	146
Finance, Insurance and Real Estate	28	27	29	28	29	27	33	31	28	32	31	31
Services	482	588	415	607	525	589	689	711	634	413	412	410
Miscellaneous	0	0	0	0	0	0	*	*	*	*	*	*
Government												
Federal	85	86	84	105	102	101	106	106	101	103	98	96
State	158	159	167	170	164	172	177	176	182	190	186	165
Local	351	373	365	363	354	262	163	218	383	397	398	401
<u>TOTAL</u>	<u>1,386</u>	<u>1,514</u>	<u>1,354</u>	<u>1,580</u>	<u>1,558</u>	<u>1,631</u>	<u>1,682</u>	<u>1,741</u>	<u>1,811</u>	<u>1,589</u>	<u>1,500</u>	<u>1,465</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 188

COVERED INDUSTRY% EMPLOYMENT
CITY OF NOME
1981

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	35	44	50	*	*	*	*	*	*	*	*	*
Construction	*	*	*	*	*	*	33	36	45	33	36	32
Manufacturing	0	0	0	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	108	109	111	114	120	139	131	136	135	130	107	103
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	141	149	149	164	168	187	215	217	208	176	164	174
Finance, Insurance and Real Estate	30	32	32	31	34	37	37	39	39	40	38	37
Services	519	510	509	528	545	604	549	561	720	401	394	365
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	95	91	91	93	93	90	90	94	92	85	78	78
State	163	177	185	177	175	188	180	194	211	211	192	182
Local	366	378	401	433	426	394	282	324	315	452	452	441
<u>TOTAL</u>	1,483	1,513	1,553	1,671	1,728	1,887	1,735	1,820	1,957	1,676	1,566	1,468

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

TABLE 189

COVERED INDUSTRY EMPLOYMENT
CITY OF NOME
1982

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	46	51	49	39	4a	56	81	79	86	76	61	63
Manufacturing	*	*	*	0	o	0	0	0	0	*	*	*
Transportation, Communication and Public Utilities	109	115	103	99	126	140	133	136	133	131	108	103
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	147	159	156	199	200	203	236	213	225	225	195	195
Finance, Insurance and Real Estate	32	33	36	33	34	41	38	37	36	40	42	40
Services	365	369	391	413	431	469	432	424	409	400	381	383
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	83	79	79	82	85	85	82	83	79	65	73	70
State	183	194	199	203	220	206	206	226	240	237	223	213
Local	457	474	478	485	467	293	187	209	537	544	541	547
<u>TOTAL</u>	1,483	1,532	1,549	1,617	1,731	1,685	1,609	1,609	1,908	1,863	1,733	1,672

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 190

COVERED INDUSTRY EMPLOYMENT
CITY OF NOME
1983

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	*	*	*	*	*	*	*	*	*	*	*	*
Construction	50	46	44	46	54	59	101	127	136	140	51	41
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	104	104	102	115	137	141	150	146	154	121	105	104
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	194	200	218				193	207	198	188	185	173
Finance, Insurance and Real Estate	40	41	39	48	50	52	52	52	53	51	43	42
Services	330	324	324	340	353	414	551	658	678	403	423	384
Miscellaneous	*	*	*	*	*	*	15	12	18	5	5	4
Government												
Federal	80	84	86	86	88	89	97	95	89	88	87	87
state	207	214	235	234	241	221	231	234	263	268	258	231
Local	601	620	624	550	567	438	222	269	553	567	570	553
<u>'IWI'</u>	<u>1,636</u>	<u>1,676</u>	<u>1,720</u>	<u>1,692</u>	<u>1,793</u>	<u>1,779</u>	<u>1,754</u>	<u>1,939</u>	<u>2,252</u>	<u>1,945</u>	<u>1,815</u>	<u>1,646</u>

* Figures withheld to comply with disclosure regulations.

source : Alaska Department of Labor.

TABLE 193

COVERED INDUSTRY EMPLOYMENT
CITY OF NOME
1986

<u>Industry Classification</u>	<u>Jan</u>	<u>Feb</u>	<u>Mar</u>	<u>Apr</u>	<u>May</u>	<u>Jun</u>	<u>Jul</u>	<u>Aug</u>	<u>Sep</u>	<u>Oct</u>	<u>Nov</u>	<u>Dec</u>
Mining	22	38	36	*	*	*	123	162	157	142	79	26
Construction	13	14	15	2	7	32	55	69	68	45	36	19
Manufacturing	*	*	*	*	*	*	*	*	*	*	*	*
Transportation, Communication and Public Utilities	78	76	76	78	78	79	81	77	76	74	73	76
Wholesale Trade	0	0	0	0	0	0	0	0	0	0	0	0
Retail Trade	200	189	208	195	216	233	279	249	224	225	217	211
Finance, Insurance and Real Estate	41	38	40	41	45	51	37	38	38	38	40	35
Services	455	470	478	489	480	484	477	441	411	424	421	435
Miscellaneous	*	*	*	*	*	*	*	*	*	*	*	*
Government												
Federal	89	94	94	93	96	99	98	96	93	89	91	87
State	223	229	237	234	255	245	238	239	247	241	232	214
Local	651	695	682	673	689	498	289	435	590	658	668	645
<u>TOTAL</u>	<u>1,779</u>	<u>1,850</u>	<u>1,872</u>	<u>1,868</u>	<u>1,976</u>	<u>1,850</u>	<u>1,683</u>	<u>1,812</u>	<u>1,910</u>	<u>1,942</u>	<u>1,863</u>	<u>1,754</u>

* Figures withheld to comply with disclosure regulations.

source: Alaska Department of Labor.

The Alaska Department of Labor's special tabulations of covered industry employment for the City of Nome record strong public employment growth between 1980 and 1986. Public sector employment increased from 606 to 927 jobs and the public sector's share of total employment rose from 39 percent to slightly over 50 percent. Most of this job growth was concentrated in local government. This public sector job growth is all the more remarkable, considering Nome's loss of the Bering Straits School District headquarters in 1982.

The total Nome employment reported by the Department of Labor for 1980 and later is suspiciously high when compared with other information sources. In 1980, the Department of Labor put average annual covered employment at 1,568 jobs; the 1980 Census reported a total of 925 jobs (apparently, an undercount); the 1979 Policy Analysts survey counted 1,071 full-time equivalent jobs; and Impact Assessment, Inc. reported 1,169 jobs for 1980. We suspect that these discrepancies stem from an assortment of inconsistencies in reporting or assigning employment. For example, the 1980 Census simply omitted many Nome residents, evidently resulting in a systematic undercount. The Census also classified service and public employment in an unconventional manner. Next, the retroactive Impact Assessment, Inc. inventory apparently missed some employers which later left Nome, e.g. the Bering Straits School District; classified Native corporate employment as services rather than as finance, insurance and real estate, which is the Department of Labor's practice; classified some public employment as services; and apparently did not convert seasonal and part-

TABLE 194
 EMPLOYMENT BY PLACE OF WORK
 NOME
 1980 - 1987
 (1980-86 actual, 1987 forecast)

<u>Employer</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Fishing	1	1	2	2	2	2	3	3
FISH Co.	1	1	2	2	2	2	3	3
Mining	162	172	192	162	158	107	149	197
Alaska Gold	160	170	190	160	125	70	70	100
Inspiration Mining					-	-	40	60
Windfall Mining					25	30	30	28
Lute Rock and Gravel	-				4	4	4	4
Martinson Gravel	2	2	2	2	4	3	5	5
Construction	14	16	22	27	29	71	71	26
Kiewit-Pacific	-	-	-	-	-	45	45	-
Robert Barron Builders	1	1	1	1	1	1	1	1
Johnson Brothers Construction	5	5	5	5	5	5	5	5
Miller Construction			5	5	5	5	5	5
Outsiders Construction	4	4	4	4	4	4	4	4
Tyree Brothers Plumbing	-	-	-	2	3	4	4	4
Winks Plumbing and Heating	4	4	5	7	7	4	4	4
Alaska Finish Carpentry		2	2	3	4	3	3	3
Manufacturing	9	9	9	9	9	9	9	9
Nome Nugget Newspaper	9	9	9	9	9	9	9	9
Transportation	63	68	73	99	116	132	131	137
Air Carriers and Services								
Alaska Airlines				-	15	16	16	16
Ryan Air			-	25	25	25	22	22
Bering Air	6	8	10	12	14	18	23	23
Evergreen Helicopters	4	4	4	4	3	3	3	3
Foster Aviation	4	4	4	4	4	4	4	4
Anvil Aviation	1	1	1	1	1	1	1	1
Olson Air Service'	7	7	8	8	8	8	8	8
Cape Smythe Air Service						7	7	10
Fish River Air Service		2	4	5	6	8	8	10
Marine and Land								
Arctic Lighterage	5	5	5	5	5	5	5	5
Nome Storage Co.	2	2	2	2	2	2	2	2
Northland Service Co.	1	1	1	1	1	1	1	1
Q Trucking Company	8	8	8	8	8	8	4	4
Alaska Cab	10	11	11	11	11	11	12	12
Yellow Cab	5	5	5	3	3	5	5	6
Checker Cab	10	10	10	10	10	10	10	10

EMPLOYMENT BY PLACE OF WORK
 NOME
 (cont., page 2)

<u>Employer</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Communications	5	6	5	9	10	11	12	12
Nome Cablevision	-	-	-	3	4	5	6	6
Alascom	1	1	1	1	1	1	1	1
GTE	4	5	4	5	5	5	5	5
Trade	222	225	230	235	238	236	225	224
General and Food								
Stop, Shop, and Save	20	20	20	16	14	13	13	13
Alaska Commercial	46	46	46	46	46	44	40	38
Mere Meats	3	3	3	3	3	3	3	3
Bilikin Bakery	4	4	4	4	4	4	4	4
Eating, Drinking Establishments								
Board of Trade	11	11	11	11	11	11	11	11
Fort Davis Roadhouse	11	11	11	11	11	11	11	11
Starlight Lounge	1	1	1	1	4	4	4	4
Anchor Tavern	6	6	6	6	7	7	6	6
Polar Bar and Liquor	60	60	60	60	60	50	40	40
Polaris Bar	4	4	4	5	5	5	5	5
Breakers Bar	5	5	5	5	5	5	5	5
Milano Pizzeria	6	6	6	6	6	6	6	6
Twin Dragon	6	6	6	6	6	6	6	6
Fat Freddie's	-	-	-	-	-	6	6	6
Gold Dust Lounge	4	4	4	4	4	4	4	4
Nacho's Restaurant		-	-	4	6	7	8	9
Other Trade								
Midnight Sun Enterprises	-	-	-	1	2	1	1	1
Nome Liquor Store	3	3	3	3	3	3	4	4
Wallace Liquor Store	6	6	6	6	6	6	6	6
Arctic Trading Post	1	2	2	2	1	1	2	2
Arctic Arms and Sporting Goods	-	-	-	1	1	1	1	1
Nome Outfitters	1	1	1	1	1	1	1	1
Tropical Touch	1	2	2	2	2	2	2	2
Nome Video		-	-	2	2	2	2	2
Gold Rush Video	-	-	1	2	1	2	2	2
Blizzard Enterprises	7	7	7	7	7	7	7	7
Builders Industrial Supply	5	5	5	5	5	5	5	5
Fagerstrom Enterprises		1	1	1	1	1	2	2
Fagerstrom Oil	-	-	2	2	2	2	2	2
M'Lord and Ladies Shop	2	2	2	2	2	2	2	2
Bilbo's Books	2	2	2	2	2	2	2	2
Bering Sewing Machines		-	-	-	-	1	1	1
Sandpiper	1	1	1	1	1	1	1	1
Robert's Appliances	1	1	1	1	1	1	1	1
Polar Jewelry	2	2	2	2	2	2	2	2

EMPLOYMENT BY PLACE OF WORK
 NOME

(cont., page 3)

<u>Employer</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Trade (cont.)								
Music Mart	2	2	2	2	2	2	2	2
Bush Unlimited			1	1	1	1	1	1
Perkins Brothers Enterprises			1	1	1	2	3	3
C And A Enterprises	-	-		-	-	1	1	1
Evans Ivory and Fur Shop	1	1	1	1	1	1	1	1
Services	242	261	285	306	353	355	357	356
Industrial								
Anderson Machine and Welding				1	1	3	3	3
Arctic Energy Systems						1	1	1
BOATEL Alaska				-	-	5	3	3
Nome Machine Works				1	4	4	4	4
J and A Electronics			-	-	-	1	1	1
AQ Electronics	-	-	1	2	1	1	1	1
Alaska BusseĀ Electric	2	2	2	2	2	2	2	2
Health								
Norton Sound Health Corporation	99	117	128	150	178	175	181	181
Nome Dental Officers	5	5	5	5	5	5	5	5
Human Services								
Nome Child Care	6	6	6	6	6	6	6	6
Nome Eskimo Community	10	10	10	10	12	10	8	8
XYZ Senior Citizen Center	7	7	7	7	7	7	7	7
Arctic Native Brotherhood Club	6	6	6	6	6	6	6	6
Bering Sea Women's Group	-	-	-	4	3	2	1	2
Nome Receiving Home	6	6	6	6	6	6	6	6
Native, Village Corporations								
King Island Native Corp.	9	9	9	9	9	9	6	5
Kawerak	7	7	7	8	10	9	10	10
Bering Straits Native Corp.	22	22	22	12	12	12	12	8
Bering Straits Housing Authority	3	4	4	4	4	4	4	5
Sitnasuak Native Corp., dba Bonanza	4	4	8	8	12	16	16	18
Other Services								
Alaska Legal Services	5	5	5	5	5	5	1	1
Meruskies	2	2	2	2	2	2	2	2
Travel Center		-	-	-	2	2	2	2
Polaris Hotel and Liquor	10	10	10	11	11	11	11	11
Nome Nugget Inn	12	12	12	12	13	6	12	12
Thrasher and Associates	7	7	7	7	7	7	7	7
Silvers Engineering	2	2	2	2	2	2	2	2
Law Office	3	3	3	3	3	3	3	3
Golden Scissors	1	1	1	1	1	1	1	1

EMPLOYMENT BY PLACE OF WORK
 NOME
 (cont., page 4)

<u>Employer</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
Services (cont.)								
BOT Hairstyling	-		-	-	-	2	2	2
Betty Ann's Beauty Salon	2	2	2	2	2	3	3	3
Genesis Hair Studio	3	3	3	3	3	3	3	3
Morgan Enterprises	4	4	6	10	10	11	11	11
Hung's Janitorial			-	-	6	6	6	6
Anderson Services			1	2	3	2	2	2
Harris Painting and Carpeting	-	-	-	-	-	-	1	1
Blizzard Laundromat	2	2	2	2	2	2	2	2
Nome Autobody	2	2	2	2	2	2	2	2
Nome Veterinary Hospital	1	1	1	1	1	1	1	1
Financial, Real Estate	10	10	10	10	19	25	21	21
Alaska National Bank	8	8	8	8	10	10	9	9
United Bank of Alaska	-		-	-	5	10	7	7
Bering Straits Credit Union	2	2	2	2	2	2	2	2
Frontier Realty				-	2	3	3	3
Government								
Federal	104	107	107	98	93	93	93	77
National Guard	30	30	30	30	30	30	30	30
National Park Service		1	1	2	2	3	4	4
Fish and Wildlife Service	2	2	2	2	2	0	0	0
Bureau of Land Management	1	1	1	1	1	1	1	1
Bureau of Indian Affairs	28	28	28	18	13	13	13	3
Federal Aviation Administration	23	23	23	24	24	25	25	23
National Weather Service	6	6	6	6	6	6	6	5
Congressional Delegation Office	1	1	1	1	1	1	0	0
General Services Administration	1	1	1	1	1	1	1	1
Public Health Warehouse	1	1	1	1	1	1	1	1
U. S. Post Office	8	10	10	10	10	10	10	10
State	201	218	211	219	216	218	214	196
Governor's Office	1	1	1	1	1	1	0	0
Legislative Affairs	2	2	2	2	2	2	1	1
Motor Vehicle Division	1	1	1	1	1	1	1	1
State Troopers	9	9	9	9	9	9	9	9
Department of Transportation	33	43	40	40	42	45	52	49
Northwest Community College	18	18	19	20	21	22	23	20
Univ. of Alaska Coop Extension	4	4	4	4	3	2	3	3
Public Defender	3	3	3	3	3	3	3	3
Housing Authority	1	1	1	1	1	9	3	3
Electi on Supervisor	1	1	1	1	1	1	1	1
Division of Governmental Assist.	2	2	2	2	2	2	2	2
Dept. Community & Regional Affairs	2	2	2	2	2	2	1	1

EMPLOYMENT BY PLACE OF WORK
 NOME

(cont., page 5)

<u>Employer</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>	<u>1987</u>
State Government (cont.)								
CETA	70	65	60	55	50	45	40	35
Division of Housing Assistance	1	1	1	1	1	1	1	1
Adult Probation Office	3	3	3	3	3	3	3	3
Department of Corrections	21	21	21	21	21	21	34	34
Nome Youth Center	-	13	13	13	13	13	3	0
Court System	7	8	8	8	8	8	8	8
Dept. Environmental Conservation	1	1	1	1	1	1	1	1
Dept. Fish and Game	4	2	2	2	2	2	3	3
Subsistence Division	.			4	4	4	2	0
Commercial Fisheries Division				3	3	3	3	2
Game Division	-	-	-	5	5	5	7	7
Family and Youth Services	8	8	8	8	8	3	4	4
Public Assistance	4	4	4	4	4	5	5	5
Nome Job Service	2	2	2	2	2	2	1	2
District Attorney	3	3	3	3	3	3	3	3
Local	136	158	154	145	146	155	154	137
Nome School District	103	106	108	100	101	103	109	97
City of Nome	33	52	46	45	45	52	45	40
TOTAL	1,169	1,251	1,300	1,321	1,389	1,415	1,439	1,395
Change from previous year		+7.0%	-3.9%	+1.6%	+5.1%	+1.9%	+1.7%	-3.0%

Note: Arithmetic errors in the source table's totals for local government employment were corrected.

Source: Impact Assessment, Inc., 1987.

time employment (e.g. mining, **CETA**) into average annual equivalents. On the other hand, Impact Assessment, Inc. caught some new employment for Nome (e.g. Ryan Air's Nome expansion) which did not seem to be reported to the Department of Labor. Overall, the most striking difference arises in local government employment, where the State agency reports employment levels 2.5 times higher than **Impact** Assessment, Inc. According to an Alaska Department of Labor employment data specialist, the employment and payroll of the Bering Straits School District continued to be attributed to the City of Nome, even after the district headquarters relocated to **Unalakleet**, which would account for most of the discrepancy.

Many rural communities exhibit a pronounced **seasonality** in employment patterns, peaking in mid or late summer and bottoming out in mid-winter. The Alaska Department of Labor's special tabulations for City of Nome employment were reviewed to assess **seasonality**. Based on average monthly employment figures for the seven year period **1980** to 1986, Nome's employment pattern shows only a mildly seasonal cycle. This can be explained by the composition of **local** employment. Government, the dominant employer, tends to be a year-round employer, except for the local school district. Most of the school staff goes off payroll during the summer. This helps offset seasonal gains in the mining, construction, transportation and tourist industries. Nome employment tends to peak in September when late summer work in mining, construction and shipping coincides with the return of school employees to work. Over the 1980 to 1986 period, September employment averaged about 13 percent over the annual mean, while that for December through March averaged 4 percent to 8 percent

TABLE 195
 AVERAGE MONTHLY EMPLOYMENT
 CITY OF NOME
 1980 - 1986

<u>Month</u>	<u>Average Monthly Employment</u>	<u>Percent Difference from Annual Average</u>
January	1,618	- 7.8%
February	1,676	- 4.4
March	1,667	- 5.0
April	1,721	- 1.9
May	1,782	+ 1.6
June	1,773	+ 1.1
July	1,722	- 1.8
August	1,810	+ 3.2
September	1,976	+12.7
October	1,860	+ 6.0
November	1,756	+ 0.1
December	1,677	- 4.4
Annual Average	1,754	

Source: Alaska Department of Labor.

below the annual mean. None of the above statistics fully indicate the degree to which Nome's **workforce** participates in self-employment. The 1982 Division of Subsistence survey (**Ellanna, 1983**) examined this question and found that 41 percent of Native households and 32 percent of non-Native households were engaged in some form of cash-based self-employment. A related finding of that survey suggested the differing degree to which **non-Native** and more transient Native households are bound to the cash economy. **Ellanna** reports that the survey found no households which originated outside the region that did not have at **least** one member employed on a full-time basis.

GAMBELL

A. PAST POPULATION TRENDS

Gambell, together with St. Lawrence Island on which it is located, holds unique fascination for ethnohistorians, archaeologists and anthropologists. St. Lawrence is the largest island in the Bering Sea, stretching about 100 miles from east to west and averaging 20 miles in width. Its western tip is within sight of Siberia's Chukotsk Peninsula 40 miles distant, while its eastern edge is about 120 miles from the Seward Peninsula and Yukon delta coastline. Some two hundred centuries ago, when shallower seas facilitated inter-continental passage, St. Lawrence Island is thought to have played a key role in the earliest human migrations from Asia to North America. There is evidence that the Gambell site has been continuously occupied for more than 2,000 years through a series of different cultural phases. At least five earlier settlement sites have been identified within **three-quarters** of a mile of today's village.

Upon a thorough review of extant sources, Burgess (1974) accepted Foote's estimate of 4,000 persons in 35 settlements and camps around the Island as the population peak for the recent **pre-historic** period (1000-1650). Burgess also estimates a **pre-contact** population of perhaps 2,500 people in 13 settlements.

The first Western discovery of St. Lawrence Island was that of Bering on St. Lawrence's day in 1728. Thanks to its prominent position astride the

entry to Bering Strait, St. Lawrence Island was subsequently sighted or visited by procession of explorers (**Deshev**, Synd, Cook, Billings, **Kotzebue**, **Shishmaref**) voyaging into Arctic waters. More extensive contact with Euro-Americans came with the Arctic forays of the commercial whaling industry which began around 1835 and peaked between 1848 and 1885. The whalers precipitated social and economic changes which climaxed in the calamitous famine of 1878-80.

St. Lawrence Islanders had **long** participated in trade. Upon his landing here in 1816, **Kotzebue** was greeted with requests for tobacco! Trade intensified with the arrival of the whalers who exchanged guns, ammunition, gear and implements, food staples and liquor for furs, hides and other indigenous goods and native labor. This established a new critical reliance upon trade goods and perhaps fostered a relaxation of traditional food storage practices. Passing whalers often stopped to hunt whale and walrus near **St.** Lawrence Island, thus depleting the two key **local** food resources. Some Island residents worked aboard ship and whaling crews probably wintered over on the Island some years. These contacts introduced a series of debilitating diseases.

By 1878, the adverse effects of these changes were already evident. At that time, the Island was reduced to six settlements and a total population of about 1,500 people. **Gambell** was the largest settlement, with about 600 inhabitants. Two tragic years later, the Island's population amounted only to about 500 survivors. Many factors - bad weather and poor hunting, disease, depleted resources, alleged improvidence - appear to have

TABLE 196
 POPULATION ESTIMATES
 GAMBELL
 1878 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1878c.		600	Muir (recorded as Sevuokuk)
1880		300	Hooper
1881		200	Muir (recorded as Sevuokuk)
1890	270		recorded as Chibuckak
1899		313	Campbell (per Burgess)
1901		264	Jackson (per Burgess)
1904		255	Campbell (per Burgess)
1904		274	Byard
1906		253	Campbell (per Burgess)
1907		252	Campbell (per Burgess)
1908		254	Campbell (per Burgess)
1909		237	Campbell (per Burgess)
1910	221		
1920	48		Presumably, an incomplete count
1920		183	Burns (per Byard)
1929	250		
1939	296		
1949		290	Alaska Native Service
1949		400	Alaska Rural Development Board
1950	309		
1957		309	Ray, 1959
1958		349	Ak. Department of Health and Social Services (per Burgess)
1958		339	Alaska Rural Development Board
1960	358	360	Ak. Department of Labor (July)
1963		377	BIA village census
1965		412	BIA village census
1967		417	Federal Field Committee - 402 Native; 15 non-Native
1968		415	Alaska Area Native Health Service
1969		415	Federal Field Committee - 410 Native; 5 non-Native

1970	372	380	Ak. Department of Labor (July)
1972		354	Burgess
1975		367	El Tanna
1975		398	U. S. Census Bureau
1976		447	U. S. Census Bureau
1978		402	Health aide census (per Byard)
1980	445		
1980	470*	437	Dept. Community/Regional Affairs
1981	480*	480	Dept. Community/Regional Affairs
1982		478	U. S. Census Bureau (July)
1982	432*	432	Dept. Community/Regional Affairs
1983	484*	464	Dept. Community/Regional Affairs
1984	498*	500	Dept. Community/Regional Affairs
1985	494*	500	Dept. Community/Regional Affairs
1986		500	Dept. Community/Regional Affairs
1987		522	Dept. Community/Regional Affairs

* Alaska Department of Labor estimates of July 1 population derived using U.S. Census methodology. Where these figures are the same as those cited by the Department of Community and Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: U. S. Census (1890 - 1980 figures).
Alaska Department of Labor (1980 - 1985 figures).

TABLE 197
 POPULATION TRENDS
 GAMBELL
1910 - 1985

<u>Year</u>	<u>Populati on</u>	<u>Percent Change</u>	
		Decenni al	Annual
1910	221		
1920	48a	-78.3	
1930	250	420.8	
1939	296	18.4	
1950	309	4.4	
1960	358	15.9	
1970	372	3.9	
1980	445	19.6	
1981	480		7.9
1982	432		-10.0
1983	484		12.0
1984	498		2.9
1985	494		-0.8

Sources: U. S. Census (1910 - **1980** figures).
 Alaska Department of Labor (**1981** - 1985 figures).

contributed to this disaster, the effects of which were profound and long-lasting. As Burgess summarizes events:

"The Great Starvation is undoubtedly the single most important event in the recent history of the population of the Island. It appears that the population has not yet recovered from its destructive effects: the Island has not repopulated to its former level, local food resources have never since been as efficiently used and, foretold by the event, the subjugation by and dependence on a new competitor in the habitat has continued unchanged until very recent times" Burgess, 1974.

In the aftermath, most survivors regrouped at **Gambell**. News of the Island's plight brought government investigations but no immediate aid. Their reduced numbers put the survival of the Island's indigenous population at risk. Unlike mainland communities, St. Lawrence Island had no pool of inhabitants in nearby territories from which to regenerate its population base. Apparently, the survivors quickly recruited newcomers from among the Siberian **Yupik** Eskimos (not Eskimos from the Alaska mainland) to whom St. Lawrence Islanders were traditionally tied by blood, culture and language. The official **1890** Census counted 270 persons at **Gambell**, 128 of whom were classified as foreign-born, presumably, Siberian Eskimos. This suggests that there were perhaps 150 indigenous Islanders left at **Gambell**.

During the next two decades, population counts for **Gambell** fluctuated between 313 and 221. Among the results of the Great Starvation was more active, if belated, intervention by government and church officials in **Gambell**'s fortunes. A school was built in 1891 and staffed in 1894. In 1900, Sheldon Jackson introduced a reindeer herd to provide another food source, along with Lapp herders. A nurse came to provide health care. In

1903, the St. Lawrence Island reserve was established for reindeer management, an historic quirk which took on its greatest significance with passage of the Alaska Native Claims Settlement Act in 1971. A store opened in 1905 and Natives began to get involved in commercial enterprise. Coincidentally, the economic decline of whaling in the 1880s may have reduced exposure to infectious diseases and allowed depleted food species to become more plentiful. In any case, after **1910**, the Island's population began a slow but definite recovery.

In 1917, another significant event occurred. **Gambell** reindeer herders established a permanent camp in the vicinity of the Island's best pasturage to the east of **Gambell**. This camp eventually grew into St. Lawrence Island's other major contemporary village, Savoonga, now more populous than **Gambell**. From that time forward, the population dynamics of the two communities have been intertwined. Their interplay has been an essential element in **Gambell**'s demographic, social and economic history.

In the seven decades after the 1910 Census, the Island's population grew at an average annual rate of about 2.1 percent. However, its two communities have not grown at a uniform rate. During the 1930-1970 period, Byard (1981) calculated that **Gambell** grew at an average annual rate of 1.6 percent, whereas Savoonga's average annual rate of increase was 3.1 percent. Still, **Gambell** has recorded a modest growth for every Census decade since 1930, when 250 residents were counted, to 1980 when there were 445 residents. Alaska Department of Labor population estimates and the Alaska Department of Revenue's count of Permanent Fund recipients both

suggest that **Gambell's** population has continued to increase at a modest rate since 1980.

B. POPULATION COMPOSITION

Because of their isolation and unique origins among Alaska Eskimos, St. Lawrence Islanders' demographic history has attracted close scholarly scrutiny. Byard's (1981) comparative research into **Gambell's** and **Savoonga's** demographic history was particularly thorough and sophisticated. Byard notes that, since its founding, **Savoonga** has grown more rapidly than **Gambell**. Based on reconstructed demographic data, she attributes that vitality largely to the circumstance that the reindeer herders who settled **Savoonga** were younger and more vigorous than **Gambell's** population. This skewed age structure resulted in a much more rapid rate of natural increase, especially in **Savoonga's** early years. Lately, Census data indicate that the age structures of the two communities have become increasingly similar.

The age composition of **Gambell's** Alaska Native population was static from 1970 (median age 20.1 years) through 1975 (median age 20.4 years) to 1980 (median age 20.9 years). However, the age distribution of 1985 Permanent Fund dividend recipients (median age 24.5) may signify a temporary upward shift in median age as the baby boom cohort of the 1950s reaches maturity. It is possible, but uncertain, that this event also presages a period of high natural increase. Differential migration patterns and fertility rates

TABLE 198
 POPULATION COMPOSITION
 GAMBELL
 1963

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 4	28	29	57
5 - 14	62	55	117
15 - 24	27	30	57
25 - 34	26	19	45
35 - 44	16	17	33
45 - 54	17	11	28
55 and over	18	22	40
<u>TOTAL</u>	<u>194</u>	<u>183</u>	<u>377</u>
<u>Median Age</u>	<u>17.8</u>	<u>17.7</u>	<u>17.7</u>

Source: BIA Village Census, 1963.

TABLE 199
POPULATION COMPOSITION
GAMBELL
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	34	16	50	0	2	2
5 - 14	46	50	96	3	2	5
15 - 24	37	28	65	0	1	1
25 - 34	24	20	44	2	1	3
35 - 44	22	16	38	2	1	3
45 - 54	8	5	13	0	0	0
55 - 64	11	14	25	0	0	0
65 and over	12	14	26	1	0	1
<u>TOTAL</u>	<u>194</u>	<u>163</u>	<u>357</u>	<u>8</u>	<u>7</u>	<u>15</u>
<u>Median Age</u>	<u>19.7</u>	<u>20.7</u>	<u>20.1</u>	.		

<u>Age Range</u>	<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	34	18	52
5 - 9	31	26	57
10 - 14	18	26	44
15 - 19	25	11	36
20 - 24	12	18	30
25 - 29	13	15	28
30 - 34	13	6	19
35 - 39	13	7	20
40 - 44	11	10	21
45 - 49	3	3	6
50 - 54	5	2	7
55 - 59	8	5	13
60 - 64	3	9	12
65 and over	13	14	27
<u>TOTAL</u>	<u>202</u>	<u>170</u>	<u>372</u>
<u>Median Age</u>	<u>18.7</u>	<u>21.3</u>	<u>19.7</u>

Note: Native is defined as Aleut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 200
 POPULATION COMPOSITION BY SEX AND AGE
 GAMBELL
 1975

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 5 years	21	25	46
6 - 10	34	16	50
11 - 15	27	23	50
16 - 20	23	20	43
21 - 25	26	9	35
26 - 30	16	14	30
31 - 35	11	10	21
36 - 40	11	6	17
41 - 45	13	7	20
46 - 50	6	7	13
51 - 55	7	0	7
56 - 60	4	2	6
61 - 65	4	5	9
66 - 70	2	6	8
71 - 75	1	3	4
76 and over	5	3	8
<u>TOTAL</u>	<u>211</u>	<u>156</u>	<u>367</u>
<u>Median Age</u>	<u>21.2</u>	<u>19.6</u>	<u>20.4</u>

Racial Composition: Alaska Native - 361 persons or 98.4 percent.
 Non-Native - 6 persons or 1.6 percent.

Source: Ellanna, 1976.

TABLE 201

POPULATION COMPOSITION
GAMBELL
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
under 5 years	33	25	58	2	0	2	35	25	60
5 - 9	22	18	40	1	1	2	23	19	42
10 - 14	34	24	58	0	0	0	34	24	58
15 - 19	28	22	50	0	0	0	28	22	50
20 - 24	21	20	41	0	1	1	21	21	42
25 - 29	29	11	40	1	1	2	30	12	42
30 - 34	17	12	29	2	1	3	19	13	32
35 - "39	12	11	23	1	0	1	13	11	24
40 - 44	11	6	17	1	3	4	12	9	21
45 - 49	15	6	21	1	0	1	16	6	22
50 - 54	7	8	15	1	2	3	8	10	18
55 - 59	5	2	7	1	0	1	6	2	8
60 - 64	4	2	6	0	0	0	4	2	6
65 - 69	4	3	7	0	0	0	4	3	7
70 - 74	1	5	6	0	0	0	1	5	6
75 and over	4	3	7	0	0	0	4	3	7
<u>TOTAL</u>	<u>247</u>	<u>178</u>	<u>425</u>	<u>11</u>	<u>9</u>	<u>20</u>	<u>258</u>	<u>187</u>	<u>445</u>
<u>Median Age</u>	<u>21.7</u>	<u>20.1</u>	<u>21.1</u>				<u>22.2</u>	<u>20.6</u>	<u>21.4</u>

source: Us. census.

will largely determine the net population results of the large number of persons now entering their prime childbearing ages.

Byard also noted an imbalance in the sex ratio for both communities, with an increasing preponderance of males over females. In **Gambell**'s case, the imbalance dates back to the beginning of the century. The imbalance is most acute within the reproductive years. According to the 1980 Census, the ratio of single males to single females over 15 years of age was 2.22 to one. Among the 21 study communities, **only** Aniak (2.25) and **Unalaska** (2.52), which is a special case because of its mostly male transient workforce, exceeded **Gambell** in this respect.

This marked deficit of marriageable females serves as a brake on the rate of natural increase at **Gambell**. **Byard** attributes the imbalance in earlier years to the influx of repopulating Siberian Eskimo males and, in contemporary times, to the selective emigration of *young* females.

Isolated and lacking economic attractions to draw newcomers, **Gambell** appears to have experienced relatively little immigration. According to the 1970 and 1980 Censuses, 96 percent of the **Gambell**'s residents were Alaska Native. Other mobility indicators show a low level of immigration. In 1974, only 4 of 336 enrolled Natives living in **Gambell** were enrolled to another village. According to the 1980 Census, less than 4 percent of **Gambell**'s residents lived in another census division 5 years earlier; more than 82 percent lived in the same house as in 1975. On the other hand, there has been notable emigration from **Gambell**. The 1974 ANCSA enrollment

TABLE 202

MARITAL STATUS, BY SEX
PERSONS 15 YEARS AND OLDER
GAMBELL
1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	91	41
Married	66	65
Separated	1	0
Widowed	7	12
Divorced	4	1
<u>TOTAL</u>	<u>166</u>	<u>119</u>

Source: 1980 Census.

TABLE 203

HOUSEHOLD TYPE AND RELATIONSHIP
GAMBELL
1980

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	89	20.0%
Spouse	59	13.3
Other Relatives	280	63.0
Non-Relative	2	.4
Sub-Total	430	96.7
In Non-Family Household		
Male Householder	13	2.9
Female Householder	1	.2
Non-Relative	1	.2
Sub-Total	15	3.3
In Group Quarters		
Inmate of Institution		
Other		
Sub-Total		
<u>TOTAL</u>	<u>445</u>	<u>100.0%</u>

Source: 1980 Census.

TABLE 204
 PERMANENT FUND DIVIDEND RECIPIENTS
GAMBELL
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		52	49	43
5 - 9			59	56
10 - 14			39	45
15 - 19			55	43
20 - 24			54	51
25 - 29			51	48
30 - 34			41	37
35 - 39			33	37
40 - 44			20	25
45 - 49			17	18
50 - 54			19	23
55 - 59			16	11
60 - 64			7	9
65 - 69			6	7
70 - 74			6	3
75 & over			8	8
Unknown	0	2	0	3
<u>TOTAL</u>	<u>450</u>	<u>468</u>	<u>480</u>	<u>467</u>

Note: 1982 age breakdown: 0-17 - 171; 18-27 - 100; 28-37 - 74; 38-47 - 39; 48-57 - 36; 58-67 - 14; 68-77 - 12; 78+ - 4; Unknown - 0; Total - 450.

1983 age breakdown as follows: 0-4 - 52; 5-17 - 132; 18-27 - 101; 28-37 - 76; 38-47 - 41; 48-57 - 31; 58-67 - 17; 68-77 - 10; 78+ - 6; Unknown - 2; Total - 468.

Source: Alaska Department of Revenue.

data showed that 23 percent of the Natives enrolled to Gambell actually lived in another community.

Another indicator of labor mobility indicates that in the recent past, Gambell residents have been reluctant or found it impractical to pursue off-island employment opportunities. Gambell, along with the other island outpost communities of St. Paul and Nikolski, showed the smallest share of residents - less than 1 percent - employed on the TAPS project. Possibly, off-island job opportunities within the Bering Straits region would prove more accessible and attractive to Gambell workers.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Gambell's wage employment is much more sketchily documented than its population dynamics.

The 1970 and 1980 Census data on employment by industry are mainly useful for showing total employment levels. In 1970, the Census reported total employment, including self-employment, of 60 for Gambell. The 1980 Census reported 104 jobs for an increase of nearly 75 percent over the decade. Eighty-seven of the jobs reported in 1980 were held by Alaska Natives, with the remaining 17 held by non-Natives. Of the jobs held by Alaska Natives, 54 were held by males and 33 by females, approximately the same proportion of Native males to females over 16 years of age.

While the two Censuses did provide a breakdown by industry, in 1970 almost of third of the employment was recorded as "other" and, in both Censuses, it appears that the bulk of public sector employment was recorded as "services". Otherwise, the Census serves to document the lack of industry there was no manufacturing employment recorded in either **1970** or 1980.

As in other villages, the labor force participation and unemployment rates reported by the 1980 Census both seem unrealistically low. According to the Census, there was virtually no unemployment at **Gambell** and virtually all persons over 16 years of age not working were counted as "not in labor force".

The Alaska Department of Labor's covered employment data series has some serious overall shortcomings, but it does provide some useful sidelights on trends in **Gambell**'s wage employment. The St. Lawrence Island sub-area combines data for **Gambell** and Savoonga, but includes only covered employment. Substantial discrepancies between Census and ADOL data are evident. The 1980 Census tallied 106 total employees at **Gambell**, while 1980 ADOL data shows total employment of 80 for the two villages combined. The 1980 Census shows modest employment in construction, transportation and communications and hefty services employment; the 1980 ADOL data shows no construction, transportation or communications employment for either village and very little service employment. As noted above, this last discrepancy may be due to the Census' classification of most public sector employment as service.

Assuming that **Gambell** and Savoonga are generally similar in their employment patterns and that the ADOL data is consistent over time, the ADOL data supports some tentative inferences about local employment trends between 1980 and 1986. Total employment grew by about **63** percent from 1980 to 1986. Of those categories for which information was provided, trade and services both showed some increase. However, the major growth was in local government employment which rose from 38 jobs in 1980 to 83 jobs in **1986**. There was a sizable jump in local government employment in **1985**, offset by a drop in federal employment. The federal government, once a significant employer on St. Lawrence Island, now has only a minimal presence. Overall, as of 1986, local government was reported to account for nearly two-thirds of total employment on St. Lawrence Island.

Another source of **Gambell** employment data is the **1986** village employment survey undertaken as part of the study titled Village Economics in **Rural** Alaska (Impact Assessment, Inc., 1987 [draft]). This survey was conducted for a **sociocultural** study. Thus, the data scope and compilation is oriented to illuminate village cultural and social relationships rather than employment patterns per se. As a result, the survey appears to cover only Native resident employment, not total employment. Also, the categorization of employment as private or public in nature is unconventional. Nevertheless, the data are recent, comprehensive of permanent resident employment, and provide unusually good detail about the job types (permanent/temporary/seasonal; full-time/part-time) and gender and age of employees.

TABLE 205
 SELECTED LABOR FORCE DATA
 GAMBELL
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	0	0	0	0	0
Civilian Employed	54	33	64	40	104
Civilian Unemployed	2	0	2	0	2
Not in Labor Force	113	73	113	73	186
Labor Force Participation Rate	33.0%	31.0%	36.0%	35.0%	36.0%
Unemployment Rate: 1980	3.6%	0.0%	3.6%	0.0%	1.9%
1970			13.0%	0.0%	8.8%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	5	6
Manufacturing	0	0
Transportation	0	4
Communications	3	7
Trade	12	9
Finance, Insurance & Real Estate	0	5
Services	19	61
Public Administration	5	12
Other	18	0
	<u>60</u>	<u>104</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 206
COVERED INDUSTRY EMPLOYMENT
ST. LAWRENCE ISLAND**
1980 - 1986

<u>Industry Classification</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>	<u>1986</u>
Mining	0	0	0	0	0	0	0
Construction	0	0	0	0	*	*	*
Manufacturing	0	0	0	0	0	0	0
Transportation, Communication and Public Utilities	0	0	0	0	0	0	0
Trade	*	*	18	20	20	23	24
Finance, Insurance and Real Estate	*	*	*	*	*	*	*
Services	6	4a	4a	4	5	6b	18
Government	54	48	64	77	89	87	87
Federal	16	14	21	26	20	4	4
State	0	0	0	0	0	0	0
Local	38	34	43	51	69	83	83
Miscellaneous	0	*	*	*	*	*	0
<u>TOTAL</u>	<u>80</u>	<u>74</u>	<u>86</u>	<u>102</u>	<u>117</u>	<u>123</u>	<u>130</u>

* Figures withheld to comply with disclosure regulations.
** St. Lawrence Island includes both Gambell and Savoonga.

^a Prorated from nine months of data.
^b Prorated from six months of data.

Source: Alaska Department of Labor.

TABLE 207

EMPLOYMENT
GAMBELL
1986

<u>Employer</u>	<u>Employees</u>
Private	
Retail Stores	4
Airlines	1
ANI CA	12
Weather Reporter	1
Guide/lodge owner	1
United Utilities	1
AVEC	2
Sub-Total	<u>22</u>
Public	
Bureau of Indian Affairs	20
Public Health Service	6
Post Office	2
Bering Straits School District	2
State of Alaska	
DOT&PF	1
National Guard	3
IRA Council	3
City of Gambell	20
Sivuuqaq Native Corporation	3
Minister	1
Sub-Total	<u>61</u>
<u>TOTAL</u>	<u>83</u>

Source: Impact Assessment, Inc. 1987 (draft).

TABLE 208

EMPLOYMENT BY DURATION AND GENDER AND AGE OF EMPLOYEE
GAMBELL
1986

<u>Job Duration</u>	<u>Number of Employees</u>	<u>Gender of Employees</u>		<u>Average Age of Employees</u>	
		Male	Female	Male	Female
Permanent Full-time	41	26	15	42	33
Permanent Part-time	13	8	5	36	49
Seasonal Full-time	23	14	9	45	44
Seasonal Part-time	1	1	0	40	-
Temporary Full-time	4	3	1	40	22
Temporary Part-time	1	0	1		22
<u>TOTAL</u>	<u>83</u>	<u>52</u>	<u>31</u>		

Source: Impact Assessment, Inc., 1987 (draft).

The 1986 employment survey counted 83 jobs, of which only 41 were permanent and full-time. The balance of less than full-time jobs included seasonal, temporary and part-time work. The 1986 proration of jobs between men and women was essentially identical with the ratio reported by the 1980 Census, suggesting that males and females had approximately equal access to employment opportunities at both times. The data on average age of employee also suggest that senior members of the community may have slightly better access to job opportunities. The average age for male employees was well above 40 years and for females nearly 40. For comparison, based on the 1985 Permanent Fund dividend recipient data, the average age of Gambell residents in the prime working age group (20 to 59 years) was calculated to be about 35 years.

The 1986 survey corroborates the earlier finding that the public sector dominates Gambell's employment picture. After correcting for some odd classifications" (employees of Sivuqaq native corporation and the local church are listed as public; employees of public utilities are listed as private), 60 of 83 jobs, or nearly three-quarters of total employment, are in public service.

Unfortunately, the data do not distinguish between jobs held by Natives and non-Natives, but it is plausible that most non-Native employees typically hold full-time permanent jobs and that the seasonal, temporary and part-time jobs are held by Natives, along with some of the permanent full-time jobs.

Finally, the reported BIA employment (20 jobs) seems unaccountably high and while reported employment (2 jobs) by the Bering Straits School District, which has operated Gambell's schools since 1982-83, is clearly too low. Perhaps school employment was mistakenly assigned to the BIA rather than the School District.

UNALAKLEET

A. PAST POPULATION TRENDS

The archaeological and historic records testify to **Unalakleet's** merits for human settlement. Archaeological evidence indicates that the vicinity of the present day townsite has been continuously occupied for two millennia, perhaps longer.

Unalakleet's contemporary ethnic and linguistic diversity pre-date but were accentuated by Western contact. By the late 1700s, **Unalakleet** was a way station on the intercontinental trade route between Siberia and Interior Alaska. **Malemiut** traders from the Seward Peninsula served as middlemen for the fur trade between Siberia and interior Indians and regularly visited **Unalakleet** en route to the Yukon River drainage via the **Kaltag** Portage.

Around 1837, as the Russian American Company extended its interests northward along the coast of Westward Alaska, it established a small post, probably a fishing station, on the north spit opposite the village then situated on the south side of the river mouth. In 1838, smallpox spread from the post to the village with deadly results. (Sources disagree about the exact chronology of these events, but concur as to the sequence). Zagoskin reported only 13 survivors from a **pre-epidemic** population estimated by various sources to number between 115 and 300 inhabitants. **Correll** cites an elderly local informant who related that only one family survived. However, all sources agree that the few survivors relocated to

the spit on the north side of the river mouth where **Unalakleet** is now situated.

After the 1838 epidemic, which was confined to **Unalit** settlements, there was an influx of **Malemiut** and **Kauwerak** people from the eastern and interior sections of the Seward Peninsula. These northern wayfarers, who were themselves under duress due to dwindling caribou herds, at first visited seasonally and later came to stay. By 1880, Nelson reported that **Malemiuts** had become the dominant group of village residents. During the latter part of the nineteenth century, the disappearance of the caribou reinforced the movement of **Malemiut** people into the **Unalakleet** area. By this time, too, **Unalakleet** had developed its unique blend of an indigenous **Yupik** dialect (**Unaluk**) overlain by two **Inupiaq** dialects (**Malemiut** and **Kauwerak**), with **Malemiut** eventually becoming the dominant linguistic influence.

The establishment of the Swedish Evangelical Church mission in 1887 was a key event in **Unalakleet's** history. The mission opened a school in 1889, soon followed by an infirmary and children's home. Later, in 1898, the Bureau of Education set up Eaton Station about 10 miles up the **Unalakleet** River to serve as headquarters for management of the area's introduced reindeer herd. The gold rush also affected **Unalakleet**, 'as miners funneled through **Unalakleet** and up the **Unalakleet** River headed for the interior gold prospects via the **Kaltag** Portage. Sheldon Jackson reported that a thousand miners passed through Eaton Station in the winter of 1899-1900. For a time, local residents found employment in this industry as guides, haulers, translators and mine help.

During the late nineteenth and early twentieth century, **Unalakleet's** new amenities also began to attract residents vacating the numerous small disease-afflicted coastal settlements and camps (Egavik, **Golsovia**, **Tolstoi Point**) which then existed both north and south of **Unalakleet**. Koutsky (1982) provides a concise inventory of these settlements and their fate. Ultimately, **Unalakleet** emerged as the sole survivor of this process of village centralization over a ninety mile stretch of coastline between **Shaktoolik** and **St. Michael**.

From the turn of the century forward, the population data for **Unalakleet** consistently show a generally upward trend, although there were interludes when disease outbreaks or the pursuit of gold (not all Eskimos were immune to the lure of riches) caused temporary setbacks in growth. Notable exceptions to the trend are the 1970 Census count and the 1982 Alaska Department of Labor estimate, both of which appear abruptly out of line with other population estimates.

Jorgensen attributes the 1960 to 1970 fall-off in "population from 574 to 434 persons to such factors as military recruitment, BIA relocation programs and the pursuit of secondary and higher education away from **Unalakleet**. However, these factors do not seem adequate to explain the population loss alleged by the Census, nor why **Unalakleet** should be so singularly affected among Native villages. Another explanation for the discrepancy is that the 1970 Census simply undercounted **Unalakleet's**

TABLE 209

POPULATION ESTIMATES
UNALAKLEET
1837 - 1987

<u>Year</u>	<u>Census</u>	<u>Other Estimates</u>	<u>Sources of Other Estimates</u>
1 8 3 7		13	Zagoski n' s count of epi demi c survi vors
1880	100		
1890	175		
1900	241		
1907		395	Evangel ical Mi ssi on records - Nati ves only
1908		325	Evangel i cal Mi ssi on records - Nati ves only
1910	247		
1920	285		
1929	261		
1939	329		
1947		452	Alaska Nutriti on Survey Report
1950	469		
1957		525	Ray, 1959
1960	574		
1962		533	BIA school census
1963		626	Nome Area OEDP - Native 550
1966		518	BIA school census
1967		622	Federal Field Commi ttee - 513 Native; 109 non-Native
1968		432	Correll - permanent Natives only
1968		610	Alaska Area Native Heal th Service - 500 Natives
1969		610	Federal Field Commi ttee - 500 Native; 110 non-Native
1970	434		
1975		601	Ellanna
1975		550	U. S. Census Bureau
1976		632	U. S. Census Bureau
1979		620	Norton Sound Heal th Corporati on

1980	623		
1980	660*	632	Dept. Community/Regional Affairs
1981	672*	672	Dept. Community/Regional Affairs
1982		651	U. S. Census Bureau (July)
1982	604*	604	Dept. Community/Regional Affairs
1983	763*	787	Dept. Community/Regional Affairs
1984	745*	787	Dept. Community/Regional Affairs
1985	759*	787	Dept. Community/Regional Affairs
1986		787	Dept. Community/Regional Affairs
1987		759	Dept. Community/Regional Affairs

* Alaska Department of Labor estimates of July 1 population derived using U. S. Census methodology. Where these figures are the same as those cited by the Department of Community and Regional Affairs, the Department of Labor accepted local censuses or estimates.

Sources: U. S. Census (1880 - 1980 figures).
Alaska Department of Labor (1980 - 1985 figures).

TABLE 210
 POPULATION TRENDS
 UNALAKLEET
 1880 - 1985

<u>Year</u>	<u>Population</u>	<u>Percent Change</u>	
		Decenni al	Annual
1880	100		
1890	175	75.0	
1900	241	37.7	
1910	247	2.5	
1920	285	15.4	
1930	261	-8.4	
1939	329	26.1	
1950	469	42.6	
1960	574	22.4	
1970	434	-24.4	
1980	623	43.5	
1981	672		7.9
1982	604		-11.1
1983	763		26.3
1984	745		-2.4
1985	759		1.9

Sources: U. S. Census (1880 - 1980 figures).
 Alaska Department of Labor (1981 - 1985 figures).

population. This supposition is supported by **Correll's** 1968 summertime count of 432 permanent Native residents only. **Correll** enumerated but did not include in the above total 50 whites associated with the schools and airlines, nor did he include military personnel. Less than two years later, the **1970** Census enumerated about 407 Natives and only 27 non-Natives, both of which figures seem too low.

Two other considerations muddle interpretation of **Unalakleet's** population figures. If the 1950 and 1960 Census counts included now-departed military personnel, then the post-War growth of the indigenous population has been even more pronounced than the gross population figures show. Second, boarding students at Covenant School may not have been consistently counted or omitted by the Census.

The 1981 Alaska Department of Labor population estimate for **Unalakleet** was 672, then dipped to 604 in 1982 and rebounded to 763 in 1983. The 1982 figure is far below the number of Permanent Fund dividend recipients for that year (717 persons) and is almost certainly a spuriously low estimate. It runs counter to other information about employment and population levels at **Unalakleet** for that interval, as discussed below.

The 1980 Census counted 623 residents. In the next few years, the transfer of the Bering Straits School District central offices from Nome to **Unalakleet**, plus increased State and local government expenditures, boosted the local economy and brought a burst of new residents, many of them non-

Natives. By 1985, the Alaska Department of Labor estimated **Unalakleet's** population at 759 persons, a 22 percent increase in five years.

The source of **Unalakleet's** vitality and growth is not immediately apparent. **Unalakleet** possesses neither dramatic economic advantages nor a populous hinterland from which to draw. Once the process of consolidation was over, there was no pool of outlying settlements from which **Unalakleet** could continue to draw new residents, as was the case with other regional centers like Kotzebue and Bethel.

Unalakleet seems to have thrived by an accumulation of small advantages. In an earlier era, when most Western Alaska villages lacked local high schools, the Covenant School was a prominent community asset. Covenant School attracted many students from other communities and is partly to credit for the exceptional number of Native civic and political leaders that **Unalakleet** has produced. **Unalakleet** has long had a reputation as a progressive and aggressive town. It was among the first villages in Western Alaska to pursue and obtain such community improvements as modern sanitation facilities, electrification, housing and communications. By the same token, **Unalakleet** was frequently selected for State and federal government field offices established outside Nome to serve inner Norton Sound communities.

During World War **II**, an Army base, later converted to an Air Force radar site that operated until about 1974, was established on a high plateau a few miles upriver from **Unalakleet**. Though maintained more or less as an

enclave, the military installation had to rely upon **Unalakleet's** airstrip, which helps explain its superior improvements. The base was connected to **Unalakleet** by road and some social mixing between military personnel and permanent residents did occur.

Unalakleet's lack of good vessel access, plus the geography of inner Norton Sound settlements, meant it never became a transshipment point for waterborne cargo. However, thanks to its good airport facilities and its equidistant position **vis-a-vis** other regional or sub-regional airports at Nome, St. Mary's, **Aniak** and **Galena**, **Unalakleet** found a niche as a sub-regional "center for air passenger traffic and distribution of air cargo for inner Norton Sound villages. But this role, too, was limited by the small number of villages accessed through **Unalakleet**.

The **Unalakleet** River's salmon resources, though modest by Bristol Bay and even Yukon River standards, were adequate to support opening up a commercial fishery around 1960 and a marginal **processing/transshipment** industry. More recently, the herring resources of inner Norton Sound have fostered a short but sometimes profitable commercial herring fishery.

B. POPULATION COMPOSITION

Culturally as well as numerically, modern **Unalakleet** remains a decidedly Native community in its ethnic composition and **socio-political** outlook. The community has constantly sought to preserve its traditional Native identity and is one of only three Norton Sound communities, along with

Koyuk and **Shaktoolik**, which retains its traditional Native name. For many years, it was governed by a strong IRA traditional council and won protected Native Reserve status for traditional community lands. **Unalakleet** declined to form a State-chartered municipal government or agree to subdivision of the community land base under the federal Native Townsite program until after passage of the Alaska Native Claims Settlement Act.

As late as the 1980 Census, about 88 percent of **Unalakleet's** residents were Native, but the share of non-Native residents has since risen as a result of the 1982 transfer of the Bering Straits School District headquarters and from the temporary boost in State and local government expenditures. Prior to that, **Unalakleet** offered few economic opportunities to attract and hold a sizable influx of non-Natives. Most non-Native residents were associated with educational services. The decision to relocate the School District offices to **Unalakleet** met with mixed community feelings, despite its economic benefits for the town. Residents recognized that the step would disrupt comfortable patterns and stimulate growth.

Detailed data on the sex, age and, sometimes, ethnic composition of **Unalakleet's** population are available for 1968 (**Correll**), 1970 (Census), 1975 (**Ellanna**) and 1980 (Census). For the Native population, the data demonstrate a definite shift from a from a balanced, age-symmetric distribution by sex in 1968 toward an increasingly imbalance, asymmetric population by 1980.

Cornell 's census counted an even number of male and female Natives. But by the 1980 Census, males (53.3 percent) outnumbered females (46.7 percent). The imbalance is concentrated in the 30-45 year age bracket, where there are more than twice as many males (68) as females (32). A related statistic is that the ratio of single males to females 15 years and older was 1.69 to one. Cohort comparisons over time point conclusively to the explanation: many more females than males emigrate from **Unalakleet** upon reaching adulthood. The demographic implication is that this trend will dampen family formation and childbearing rates, and thus population growth, since many males lack potential partners.

Even so, **Unalakleet** is likely to continue to grow through natural increase. At least through 1980, birth rates remained high so that the number of young people who will mature to the prime childbearing ages over the next decade is large enough to absorb substantial losses to emigration and still maintain population growth.

The median age for Native males and females has risen steadily from 1968 (males - 18.0 years; females - 15.1 years) to the 1980 Census (males - 23.1 years; females - 21.7 years). The 1980 figures are still well below the national norm. The 1980 median age difference between males and females results solely from the deficit of females in the 30-45 year age group.

Inter-village marriage patterns at **Unalakleet** have been well documented. **Correll** mapped inter-village marriage patterns and found an extensive network of linkages between **Unalakleet** and Norton Sound villages and, to a

TABLE 211

ALASKA NATIVE POPULATION COMPOSITION*
UNALAKLEET
1968

<u>Acre Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 5 years	34	27	61
6 - 10	35	43	78
11 - 15	27	47	74
16 - 20	32	30	62
21 - 25	11	9	20
26 - 30	6	11	17
31 - 35	11	6	17
36 - 40	10	9	19
41 - 45	13	7	20
46 - 50	7	4	11
51 - 55	7	6	13
56 - 60	7	9	16
61 - 65	6	2	8
66 - 70	4	2	6
71 - 75	2	3	5
76 and over	4	1	5
<u>TOTAL</u>	<u>216</u>	<u>216</u>	<u>432</u>
<u>Median Age</u>	<u>18.0</u>	<u>15.1</u>	<u>16.3</u>

* This census includes only permanent Native residents during the summer of 1968. Other enumerations at that time (Federal Field Committee for 1967 and 1969; Alaska Area Native Health Service for 1968) consistently estimate about 500 Native residents at Unalakleet.

Source: Correll, 1972.

TABLE 212
POPULATION COMPOSITION
UNALAKLEET
1970

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	16	17	33	1	0	1
5 - 14	73	75	148	2	5	7
15 - 24	37	39	76	1	1	2
25 - 34	21	20	41	3	2	5
35 - 44	17	15	32	1	2	3
45 - 54	19	14	33	4	3	7
55 - 64	11	11	22	0	0	0
65 and over	14	8	22	0	2	2
<u>TOTAL</u>	<u>208</u>	<u>199</u>	<u>407</u>	<u>12</u>	<u>15</u>	<u>27</u>
<u>Median Age</u>	<u>19.2</u>	<u>17.1</u>	<u>18.0</u>			

<u>Age Range</u>	<u>Total</u>		
	<u>Male</u>	<u>Female</u>	<u>Total</u>
Under 5 years	17	17	34
5 - 9	39	39	78
10 - 14	36	41	77
15 - 19	22	29	51
20 - 24	16	11	27
25 - 29	14	12	26
30 - 34	10	10	20
35 - 39	7	6	13
40 - 44	11	11	22
45 - 49	19	12	31
50 - 54	4	5	9
55 - 59	9	7	16
60 - 64	2	4	6
65 and over	14	10	24
<u>TOTAL</u>	<u>220</u>	<u>214</u>	<u>434</u>
<u>Median Age</u>	<u>19.2</u>	<u>16.8</u>	<u>17.9</u>

Note: Native is defined as Aleut, Eskimo, Indian and others, excluding White and Negro.

Source: U. S. Census.

TABLE 213
 POPULATION COMPOSITION BY SEX AND AGE
 UNALAKLEET
 1975

<u>Age Range</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
0 - 5 years	42	36	78
6 - 10	28	29	57
11 - 15	40	42	82
16 - 20	35	39	74
21 - 25	26	38	64
26 - 30	33	15	48
31 - 35	25	18	43
36 - 40	20	12	32
41 - 45	8	7	15
46 - 50	13	13	26
51 - 55	16	10	26
56 - 60	10	7	17
61 - 65	10	10	20
66 - 70	3	4	7
71 - 75	4	2	6
76 and over	2	4	6
<u>TOTAL</u>	<u>315</u>	<u>286</u>	<u>601</u>
<u>Median Age</u>	<u>23.5</u>	<u>20.7</u>	<u>21.8</u>

Racial Composition: Alaska Native - 520 persons or 86.5 percent.
 Non-Native - 81 persons or 13.5 percent.

Source: Ellanna, 1976.

TABLE 214
POPULATION COMPOSITION
UNALAKLEET
1980

<u>Age Range</u>	<u>Alaska Native</u>			<u>Non-Native</u>			<u>Total</u>		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Under 5 years	31	28	59	5	3	8	36	31	67
5 - 9	25	30	55	4	4	8	29	34	63
10 - 14	32	28	60	1	0	1	33	28	61
15 - 19	42	38	80	2	2	4	44	40	84
20 - 24	26	32	58	2	3	5	28	35	63
25 - 29	18	21	39	8	6	14	26	27	53
30 - 34	31	10	41	7	8	15	38	18	56
35 - 39	21	15	36	4	3	7	25	18	43
40 - 44	16	7	23	2	1	3	18	8	26
45 - 49	9	8	17	0	0	0	9	8	17
50 - 54	10	8	18	2	1	3	12	9	21
55 - 59	9	11	20	3	3	6	12	14	26
60 - 64	6	5	11	1	0	1	7	5	12
65 - 69	8	7	15	0	0	0	8	7	15
70 - 74	3	4	7	0	0	0	3	4	7
75 and over	4	3	7	1	1	2	5	4	9
<u>'rim"</u>	<u>291</u>	<u>255</u>	<u>546</u>	<u>42</u>	<u>35</u>	<u>77</u>	<u>333</u>	<u>290</u>	<u>623</u>
<u>Median Age</u>	<u>23.1</u>	<u>20.6</u>	<u>21.7</u>	<u>29.7</u>	<u>29.9</u>	<u>29.7</u>	<u>24.3</u>	<u>21.6</u>	<u>22.8</u>

source : U.S. census.

TABLE 215
 PERMANENT FUND DIVIDEND RECIPIENTS
 UNALAKLEET
 1982 - 1985

<u>Age Group</u>	<u>1982</u>	<u>1983</u>	<u>1984</u>	<u>1985</u>
0 - 4		75	74	83
5 - 9			80	79
10 - 14			75	81
15 - 19			53	48
20 - 24			77	67
25 - 29			70	76
30 - 34			76	65
35 - 39			70	75
40 - 44			48	45
45 - 49			25	30
50 - 54			22	20
55 - 59			20	24
60 - 64			21	18
65 - 69			10	10
70 - 74			14	14
75 & over			10	10
Unknown	0	2	2	3
<u>TOTAL</u>	<u>717</u>	<u>739</u>	<u>747</u>	<u>748</u>

Note: 1982 age breakdown: 0-17 - 252; 18-27 - 151; 28-37 - 149; 38-47 - 62; 48-57 - 42; 58-67 - 33; 68-77 - 23; 78+ - 5; Unknown - 0; Total - 717.
 1983 age breakdown: 0-4 - 75; 5-17 - 175; 18-27 - 146; 28-37 - 155; 38-47 - 86; 48-57 - 42; 58-67 - 32; 68-77 - 22; 78+ - 4; Unknown - 2; Total - 739.

Source: Alaska Department of Revenue.

TABLE 216

MARITAL STATUS, BY SEX
 PERSONS 15 YEARS AND OLDER
 UNALAKLEET
 1980

<u>Marital Status</u>	<u>Male</u>	<u>Female</u>
Single	118	70
Married	97	99
Separated	6	5
Widowed	5	14
Divorced	9	9
<u>TOTAL</u>	<u>235</u>	<u>197</u>

Source: 1980 Census.

TABLE 217

HOUSEHOLD TYPE AND RELATIONSHIP
 UNALAKLEET

<u>Household Type and Relationship</u>	<u>Number</u>	<u>Percent</u>
In Family Household		
Householder	128	20.5%
Spouse	91	14.6
Other Relatives	355	57.0
Non-Relative	15	2.4
Sub-Total	235	94.6
In Non-Family Household		
Male Householder	22	3.5
Female Householder	8	1.3
Non-Relative	4	.6
Sub-Total	34	5.4
In Group Quarters		
Inmate of Institution		
Other		
Sub-Total		
<u>TOTAL</u>	<u>623</u>	<u>100.0%</u>

Source: 1980 Census.

lesser extent, Lower Yukon villages. Jorgensen collected even more detailed data on marriage patterns in 1982. Jorgensen tracked 119 couples where one or both spouses were born and reared at **Unalakleet**. Of these, 66 marriages were between two village residents. For the remaining 53 couples, 32 female spouses and 21 male spouses were from outside **Unalakleet**. Of the non-local spouses, 33 were Natives from elsewhere in Alaska and 20 were non-Native. Nearly **all** of the Natives marrying into **Unalakleet** households were from nearby Norton Sound or Yukon-Kuskokwim villages, as shown below.

TABLE 218
HOME VILLAGE OF NON-LOCAL NATIVE SPOUSES
UNALAKLEET
1982

<u>Spouse's Home Village</u>	<u>Number</u>
Aleutian Islands (unidentified)	1
Bethel	1
Elim	3
Golovin	2
Koyuk	2
Mountain Village	1
Nome	3
Point Lay	1
Savoonga	1
Shaktolik	6
St. Mary's	5
St. Michael	2
Yukon-Kuskokwim (unidentified)	3
White Mountain	1
Unknown	1
<u>TOTAL</u>	33

Source: Jorgensen, 1984.

Finally, there were another 35 couples where both spouses originated outside **Unalakleet**. Of these, 31 were non-Native couples and the four Native couples were from nearby villages and had close relatives in **Unalakleet**.

Jorgensen did not collect rigorous data on out-marriages, but his informal survey counted 88 women and 33 men from **Unalakleet** who had married and now lived elsewhere. Practically all of these women and most men relocated to urban centers outside the Bering Straits region.

The 1974 data on **ANCSA** enrollment and residence indicate a substantial net out-migration of **Unalakleet** Natives prior to that time. Among the 21 study communities, **Unalakleet** had the highest percentage - 47.7 percent - of locally enrolled residents living elsewhere. Relatively few of its Native residents, about 7 percent, were enrolled to another village.

Overall, these data on inter-village marriage and migration patterns suggest three conclusions. First, young adult Native females have been notably more prone to emigrate from **Unalakleet** than their male counterparts. Second, **Unalakleet** has experienced a substantial net exodus of its Native residents. Third, the rate of natural increase has so far been high enough to result in population growth, despite high net out-migration.

c. TRENDS IN WAGE AND SALARY EMPLOYMENT

Unalakleet's population has long surpassed a level which could reliably depend upon the area's subsistence resources. Since the early 1900s, residents have been active participants in the cash economy, a trend which became increasingly strong after World War II. The main sources of statistics on contemporary employment are the 1970 and 1980 Censuses, a 1982 employment survey (Jorgensen, 1984) and covered employment data compiled by the Alaska Department of Labor.

The 1970 Census reported a total of 110 employees at Unalakleet or about 4.3 residents per job. Employment was most heavily concentrated in public administration (37 employees), services (28), transportation (19) and trade (13). As reported by the 1980 Census, Unalakleet's employment base had become larger and more diverse. The 1980 Census counted 165 employees for a ratio of about 3.8 residents per job. The employment profile now included jobs in manufacturing, construction and finance. Reported service employment grew substantially, but probably included many jobs which would ordinarily be classified as public service.

The official Census's reported 1980 labor force participation rate (42 percent) and the unemployment rates for 1970 (4.3 percent) and 1980 (5.7 percent) appear suspect in comparison to known economic conditions at Unalakleet. Examination of the 1980 Census's labor force status data suggests that at Unalakleet, as elsewhere, many unemployed residents may

have been classified as "not in labor force", thereby depressing both the labor force participation and unemployment rates.

Alaska Department of Labor monthly and average annual covered employment data are available for the **Unalakleet** sub-area for 1980 through 1986. These data suffer from two serious shortcomings. First, the **Unalakleet** sub-area also includes St. Michael and **Stebbins** employment, which makes it infeasible to pin down **Unalakleet's** reported total employment and employment composition. Second, employment figures for certain recently dynamic sectors (manufacturing, finance, insurance and real estate, construction) are suppressed to comply with disclosure regulations, although total employment data are provided. However, the total employment figures fluctuate in odd ways which are hard to fathom or credit, since 30 to 50 percent of all employment, and much of the variability, falls into suppressed categories.

All in all, Jorgensen's 1982 survey stands as the most thorough and reliable recent inventory of employment at **Unalakleet**, although it is dated and somewhat unorthodox. Some 1982 employers are now defunct (Covenant High School, Wien Air Alaska) or significantly revamped (Ryan Air). The survey counted only full-time wage employment, omitting self-employed fishermen and seasonal or part-time employment. Jorgensen also counted, but did not include in the total, 23 workers (17 Natives, 6 non-Natives) in family-owned businesses. Lastly, Jorgensen's original tabulation assigned **Unalakleet** Village Corporation employees to the public sector.

TABLE 219
 SELECTED LABOR FORCE DATA
 UNALAKLEET
 1980

LABOR FORCE STATUS, PERSONS OVER 16 YEARS, 1980

<u>Labor Force Status</u>	<u>Alaska Natives</u>		<u>All Races</u>		
	Male	Female	Male	Female	Total
Armed Forces	0	0	0	0	0
Civilian Employed	61	65	85	80	165
Civilian Unemployed	7	3	7	3	10
Not in Labor Force	115	108	118	117	235
Labor Force Participation Rate	37.0%	38.0%	43.0%	41.0%	42.0%
Unemployment Rate: 1980	10.3%	4.4%	7.6%	3.6%	5.7%
1970	*	*	6.3%	0.0%	4.3%

EMPLOYMENT BY INDUSTRY, 1970 AND 1980

<u>Industry</u>	<u>1970</u>	<u>1980</u>
Construction	0	9
Manufacturing	0	18
Transportation	19	22
Communications	5	0
Trade	13	8
Finance, Insurance & Real Estate	0	6
Services	28	77
Public Administration	37	20
Other	8	5
<u>TOTAL</u>	<u>110</u>	<u>165</u>

* Data missing or suppressed.

Source: U.S. Census, 1980.

TABLE 220
COVERED INDUSTRY EMPLOYMENT
UNALAKLEET AREA**
1980 - 1986

Industry Classification	1980	1981	1982	1983	1984	1985	1986
Mining	*	*	*	*	*	*	*
Construction	*	*	*	*	*	*	*
Manufacturing	*	*	*	*	0	*	*
Transportation, Communication and Public Utilities	20	26	32	39	*	*	*
Trade	45	58	57	41	48	43	40
Finance, Insurance and Real Estate	*	*	*	*	*	*	*
Services	13	15	19	23	31	36	28
Government	60	68	76	83	93	124	81
Federal	24	22	12	4	5	5	5
State	0	0	0	0	0	0	0
Local	36	46	64	79	88	119	76
Miscellaneous	0	0	0	0	0	0	0
<u>TOTAL</u>	<u>228</u>	<u>206</u>	<u>206</u>	<u>199</u>	<u>260</u>	<u>336</u>	<u>297</u>

* Figures withheld to comply with disclosure regulations.

** Unalakleet area also includes Egavik, Saint Michael and Stebbins.

Source: Alaska Department of Labor.

TABLE 221
 FULL-TIME EMPLOYMENT
 UNALAKLEET
 1982

<u>Employer</u>	<u>Native Employees</u>	<u>Non-Native Employees</u>	<u>Total Employees</u>
Private			
Unalakleet Village Corporation	21	1	22
Wien Air Alaska	6	1	7
Ryan Air Service	7	6	13
Alaska Commercial Company	8	0	8
Rendezvous Club	2	2	4
Musk Ox Farm	<u>0</u>	<u>2</u>	<u>2</u>
Subtotal	44	12	56
Public			
IRA Council	3	0	3
City	10	6	16
Unalakleet Village Elec. Coop.	3	2	5
Bering Straits School District	13	20	33
Degnan School	16	14	30
Covenant School	0	16	16
Headstart	4	0	4
Bering Straits CRSA	1	0	1
State of Alaska			
DOT&PF	2	1	3
DH&SS	5	1	6
Other	4	1	5
Euksavik Clinic	2	1	3
Post Office	<u>3</u>	<u>0</u>	<u>3</u>
Subtotal	66	62	128
<u>TOTAL</u>	<u>110</u>	<u>74</u>	<u>184</u>

Note: Includes only full-time wage employment.

Source: Jorgensen, 1984.

Jorgensen's survey counts Native and non-Native employment separately and thus provides some insight into Native and non-Native employment patterns. The public sector accounted for about 70 percent of all full-time employment, with educational institutions (Bering Straits School District, Degnan School, Covenant School, Headstart) comprising nearly two-thirds of public sector jobs. The City of **Unalakleet** was also a significant employer, supplemented by a scattering of jobs in federal, State, utilities and non-profit service agencies. The diversified **Unalakleet** Village Corporation and the two airlines then serving **Unalakleet** supplied the bulk of private sector employment.

The racial breakdown of employment indicates the degree of success which Native residents have had in gaining access to different lines and levels of work. For every employer, Natives outnumbered non-Native employees except at two educational institutions (Bering Straits School District - 13 Native and 20 non-Native employees; Covenant School - 16 non-Native employees) and the Musk Ox farm. Natives were most prevalent in the private sector, where they comprised nearly 80 percent of all full-time employees and nearly 75 percent of workers in family-owned businesses. On the other hand, in the public sector, there were only slightly more Native than non-Native employees.

Overall, these data suggest that Natives have been very successful at gaining access to employment in local enterprises. Likewise, Natives have had good, but less emphatic success at penetrating most public service agencies, save where specific demands for educational credentials or

recruitment by missionary church bodies may have limited the number of qualified local employees.

From another perspective, the data show the firmer involvement of non-Native residents with wage employment. Non-Native households comprised about 23 percent of all households according to Jorgensen, but commanded about 40 percent of the available full-time positions. This difference reflects the decidedly stronger commitment of non-Natives to the wage labor force and the superseding importance of economic reasons for non-Natives residing in **Unalakleet**. Most Non-Native adults come to **Unalakleet** to earn and leave if they cannot. Most Native residents in the work force seek cash employment or self-employment, but are likely to stay in **Unalakleet** regardless of their short-term prospects.

As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, **preserving** the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of **life through outdoor recreation**. The Department **assesses our energy** and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. Administration.

