

NORTH SLOPE BOROUGH SNAPSHOT

Total Population	7998
Sample Population	5535
Population Growth Since 2003	691
Population Growth Since 1998	433
Population Growth Since 1988	2478
Percent Female	47.6%
Percent Male	52.4%
Percent Iñupiat	76.4%
Percent Caucasian	11.9%
Percent Other	11.8%
Number and Percent of Population Fluent Inupiaq Speakers	988 (18.6%)
Number and % of population ≤ 16 (dependency indicator)	1,768 (32.2%)
Number and % of population 16-64 (Labor Force)	3,548 (62.3%)
Number & % of population ≥ 65 (dependency indicator)	276 (4.5%)
Median Age of Females	25.0
Median Age of Males	26.0
Median Age of Total Population	26.0
Number of Individuals with permanent full-time employment	1,743
Number and percent of Labor Force unemployed	957 (26.5%)
Number and % of labor pool underemployed	1,275 (49.4%)
Total Number of dwelling units	2523
Number of Vacant Units and Vacancy Rate	183 (7.3%)
Total Number of Occupied Households	2340
Total Number of Households Surveyed	1,604
Average Number of People per Household	3.59
Percent of Households in Census	68.5%
Percent of Total Population in Sample	69.2%
Percent of Iñupiat Households using subsistence foods	98.7%
Percent of households receiving half or more of diet from Subsistence foods	53.4%

North Slope Borough: Economic Profile and Census Report 2010

The North Slope Borough

The North Slope Borough, the largest municipality in the United States, is larger geographically than several of the contiguous states. The borough is bordered on the south by the foothills of the Brooks Range, the Arctic Ocean on the north, Canada's Yukon Territory on the east and the Chukchi Sea on the west. At a total of 89,000 square miles, the North Slope Borough comprises approximately fifteen percent of Alaska's landmass, all of it located above the Arctic Circle.

The majority of residents in the North Slope Borough are Iñupiat Eskimo (76.4 percent, up from 71.7 percent in 2003) who have learned to survive in one of the harshest inhabited environments. Their survival, drawn from traditional knowledge passed from generation to generation, is based on close family ties, teamwork, cooperation and the sharing of resources and knowledge. For at least the last 10,000 years, the Iñupiat have developed a rich culture, a dynamic set of traditions and a deep respect for nature.

The remaining population of the North Slope Borough is composed of Caucasians (11.9 percent), Filipinos (4.3 percent), Pacific Islander (1.4 percent), other Alaska Natives and Native Americans (1.3 percent), African Americans (.8 percent) and smaller numbers of other ethnic groups.

As was the case in 2003, there has been a demographic shift in the 7-year period since the previous Economic Profile, but during this time the shift was in the opposite direction. Where the percentage of Iñupiat population had fallen slightly in 2003, the percentage of Iñupiat in 2010 has increased by 4.7 percent, while the Caucasian population has declined by 3.6 percent, the Filipino population has decreased by 3.2 percent, the Pacific Islander population has decreased by .5 percent and the other Alaska Native and Native American population has increased slightly by less than 0.1 percent. The "Other Minority population", which includes all ethnicities not listed on Table 1, has increased from 3.4 percent to 4.1 percent.

The major source of revenue for the Borough government and for many residents continues to be oil and natural gas development. While production levels have been declining in the major fields in the Borough, exploration and development of new wells and fields continues to progress and has had significant effects on some of the communities in the Borough, as well as on the total labor force including the oil fields (where only 233 individuals are residents of the North Slope Borough). In 2010, there were 10,276 individuals in the workforce in the oil fields and related occupations.¹ This figure does not include the resident workforce in the communities of the North Slope Borough and is not included in this report.

The dominant cash and consumer culture of the larger United States society has a significant influence on residents of the North Slope Borough, particularly the Iñupiat, resulting in significant challenges to traditional and cultural values—especially those centered on land use and the subsistence lifestyle tied directly to it.

¹ Comprehensive Annual Financial Report of the North Slope Borough, Alaska. July 1 2009 – June 30, 2010.

The Iñupiat have drawn on their traditional, collective experiences derived from living with the vagaries of the Arctic, and have adapted those traditional and cultural values to the challenges inherent in modernity and the need to develop their natural resource as well as the need to judiciously determine the application of the revenues that flow from that development.

Aspects of modernity continue to apply pressure on the North Slope Borough and its residents. Oil production continues to decline in existing fields and a number of factors, including but not limited to federal and state actions, have curtailed new discovery efforts and production² leading to declines in revenues available to the Borough for many of the past ten (10) years, which led to an outmigration of (primarily non-Iñupiat) residents. While the fiscal health of the Borough was negatively affected during the early years of this period, there has been a marked return to the North Slope by many of those who had moved however temporarily away, as well as an influx of newer residents over the past 2 to 3 years.

The end result of this upheaval has been a rollercoaster effect in terms of student enrollments in the schools, demographic changes among the population, and changes in socio-economic trends in the North Slope communities, including but not limited to employment, poverty levels and income distribution. Exacerbating this situation has been the reduction in assistance by the State of Alaska at almost all levels.

The North Slope Borough continues to be the driving force behind improvements in sanitation by centralizing water and sewer systems and subsidizing their delivery in all North Slope communities. The Borough has operated health, fire, police and search and rescue programs in addition to the development of an effective public education system with modern, well-equipped schools in all communities. The Borough has also established a public library which services both the community at large and students at Ilisagvik College; a cultural center/museum; Ilisagvik College itself as well as a workforce development program; and has facilitated the development and maintenance of a public housing program as well as many other services and programs for residents. These are programs and services that would not have been possible without the existence of the Borough.

The Borough acknowledges that oil and gas exploration and development on the North Slope is the principal industry in the Borough and the employer of the bulk of the Borough's industrial/census area workforce, which includes several thousand workers in the oil fields and related occupations.³ Of those, a total of 20 are residents of the North Slope Borough.⁴ Between 2004 and 2007 employment essentially stagnated, then in 2007 resumed increasing at approximately 1,000 individuals each year. This report does not study employment outside the eight communities composed of the primary inhabitants of

³ Comprehensive Annual Financial Report of the North Slope Borough, Alaska. Jul 1, 2009-June 30, 2010.

⁴ MacDowell Group, *The Role of the Oil and Gas Industry in Alaska's Economy*, October 2011: 39

borough, and thus focuses on the communities of Anaktuvuk Pass, Atqasuk, Barrow, Kaktovik, Nuiqsut, Point Hope, Point Lay and Wainwright.

High unemployment and underemployment continue as characteristics of the North Slope, and have actually increased over the last three Economic Profiles and Census Reports. This is undoubtedly caused in part by the resurgence of population after the shock of high-energy costs coupled with the economic downturn of the later part of the first decade of the twenty-first century.

Population

Figure 1: Population Growth
North Slope Borough: Historic Population Growth 1939 to 2010

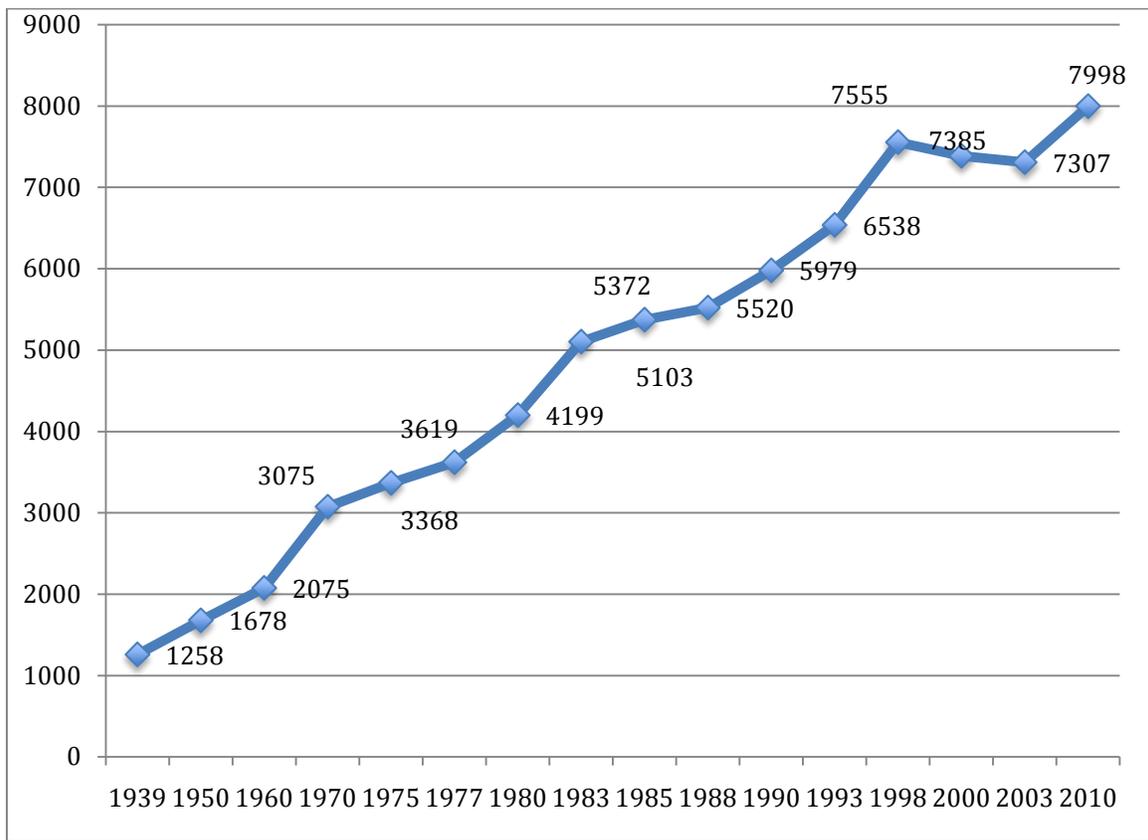


Table 1: North Slope Borough 2010: Population by Ethnicity*

Ethnicity	Percent	Count	Percent	Count
Iñupiat	74.1%	4,127	76.4	4,220
Caucasian	14.4%	802	11.9	659
Aleut	<0.01%	3	0	1
Athabascan	0.2%	13	0.2	12
Tlingit	0.01%	5	0.1	5
Haida	0.1%	6	0.1	5
Siberian Yup'ik	<0.017%	1	0	1
Yup'ik	0.3%	14	0.4	20
Tsimshian	0.0%	0	0.1	3
American Indian	0.6%	33	0.4	21
Asian Indian	0.1%	6	0.1	5
Filipino	4.0%	223	4.3	236
Thai	0.4%	23	0.2	12
Hawaiian	0.2%	12	0.2	9
Korean	0.4%	21	0.1	6
Pacific Islander	1.1%	58	1.4	77
African American	0.7%	37	0.8	44
Vietnamese	0.0%	0	0.1	3
Chinese	0.1%	6	0	1
Other (specify)	3.2%	175	3.4	187
Total	99.9%	5,565	100	5527

The population trend of the North Slope Borough had the appearance of a roller coaster over the past 12 years, after continuous growth from 1939 to 1998. Several factors, including the spike in costs of living in rural Alaska during the mid to late 2000s, saw the population decline, but never to levels prior to 1998. In 2009 and 2010, as Figure 1 demonstrates, the population once again rebounded as residents began moving back into Barrow and the outlying communities and the Iñupiat birth rate increased (See Table 2 below). The 2010 Economic Profile and Census Report shows a substantial increase of over 690 people between 2003 and 2010, a 9.5 percent increase.

Table 2: . Comparative Birth Rates for North Slope Borough (NSB), Alaska, & the United States*

Category	NSB 1996-98	NSB 2006-08	Alaska 1996-98	Alaska 2006-08	US Rate 2007
Crude Birth Rate**	20.2	27.2	16	16.5	14.3
Crude Births	445	551			4,317,000
Teen (15-19) Birth Rate	78.8	92.7	50	41.5	42.5
Fertility Rate***	95.8	132.3	71.7	79.3	69.5

*Sources: State of Alaska Vital Statistics and Statistical Abstracts, 2010. **Crude birth rates are live births per 1,000 population. ***Fertility rates are the number of live births per 1,000 females age 15-44.

The population of Barrow increased by 545 people, from 4,429 in 2003 to 4974 in 2010 while the population in the remaining seven communities rose by a combined 145 individuals, from 2,878 in 2003 to 3023 in 2010, a 5 percent increase. Anaktuvuk Pass experienced a gain from 346 in 2003 to 389 in 2010; Atqasuk saw a gain of 18 individuals during the same period, while Kaktovik experienced a gain of 14 over the 7 years, as did the community of Point Lay. During that time, Nuiqsut lost one resident, going from 416 to 415; Point Hope saw an increase of 67 individuals between 2003 and 2010; while Wainwright’s population decreased by 10 people during the same period.

The increase in population in North Slope Borough communities can be attributed to a variety of reasons, chief among them the return of many families and individuals who moved into larger communities in Alaska because of the increased costs of energy that characterized the mid to late 2000s. Among other things, while unemployment remains high in many of the villages, there has been an increase in employment opportunities on the North Slope, particularly in Barrow and Nuiqsut. In Nuiqsut the labor force increased as did full-time, part-time and seasonal employment, increases that can also be attributed to the activities of ConocoPhillips Alaska Incorporated’s operations around the community as well as the economic activities of the Kuukpik Village Corporation.

Of the 7998 residents of the North Slope Borough, 76.4 percent or 6,073 identify themselves as Iñupiat, an increase from 71.73 percent in 2003. Another 592 or 11.9 percent identify themselves as Caucasian and 341 or 4.3 percent identify themselves as being in the next largest ethnic group, Filipino. The remaining 604 individuals or 7.4 percent are identified as “Other” and include Other Alaska Natives and Native Americans, Pacific Islanders and African Americans in addition to smaller numbers of many different ethnic groups.

Table 3: NSB 2010: Population of NSB Communities by Ethnicity*

Ethnicity of North Slope Population by Community: 2010								
	AKP	ATQ	BRW	KAK	NUJ	PHO	PTL	WAI
	Count							
Iñupiat	253	213	2028	201	334	587	165	439
Caucasian	19	13	493	30	30	32	18	24
Other	17	5	600	3	11	16	2	1
*Includes only those individuals responding to the survey and the question about their ethnicity								

Charts 1 and 2 below reflect the changes that have occurred in the gender and ethnic composition of the North Slope Borough population since the 2003 Economic Profile and Census Report. There has been a significant gain in Iñupiat children in the 0 to 4-age cohort, from 417 in 2003 to 546 in 2010 and only a small increase in the number of non-Iñupiat children in that cohort from 95 in 2003 to 97 in 2010. There is a similar increase in Iñupiat but a decline in non-Iñupiat populations in the 5 to 9-age cohort., from 361 Iñupiat in 2003 to 434 in 2010, and a decline in non-Iñupiat population in that cohort from 236 to 73 in that same period. Only in the 35 to 39 and 10 to 14 age cohorts are there declines in both the Iñupiat and non-Iñupiat populations, while all other age categories show increases in the Iñupiat population and, with the exception of the 80+ category, significant decreases in the non-Iñupiat North Slope Borough population.

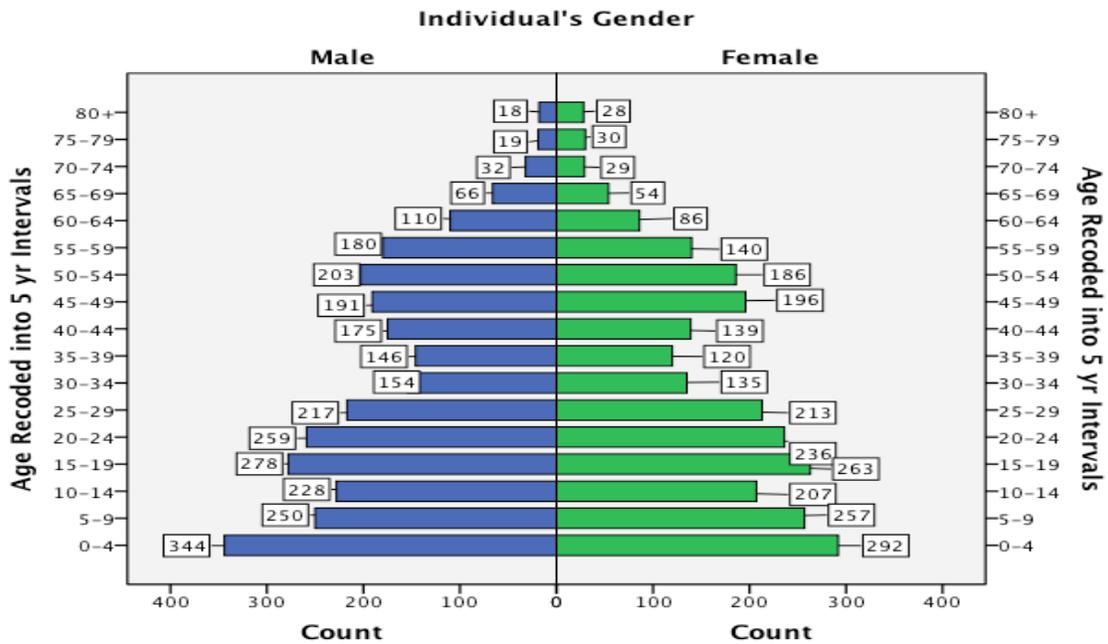
There has been a shift in the gender composition of the North Slope Borough as well. Both Males and Females have increased in number over the past 7 years, with males in the 0-4 age group increasing from 289 to 344 and females increasing from 228 to 292. While the 5 to 9 age group remained fairly stable between males and females in the same period, there was a substantial drop of 109 females and 34 males in the 10 to 14-age group. The age groups between 35 and 44 also demonstrated declines in both males and females during this period, while the 45 to 49 age group remained stable. There were increases in the numbers of both males and females in the age groups 50 and above.

Among those individuals responding to the survey and answering the questions about age, gender and ethnicity, there was an increase in the number of males in the North Slope Borough population of 228 and a smaller increase in the number of females of 112 between the 2003 and 2010 North Slope Borough Economic Profiles and Census Reports.

Some of this increase in population (and decrease in non-Iñupiat individuals noted above) is reflected in the District Enrollment data collected by the Alaska Department of Education and Early Development annually.⁵ Among other things, the data for the North Slope School District shows a steady decline in school enrollments beginning in 2003, then a rather precipitous drop in 2008 that continues in 2009 (and approximates the departure of many families due to the harsh economic climate), followed by an upsurge of enrollments in especially pre-Kindergarten and Kindergarten populations beginning in late 2009 as Iñupiat families in particular move back into communities on the North Slope.

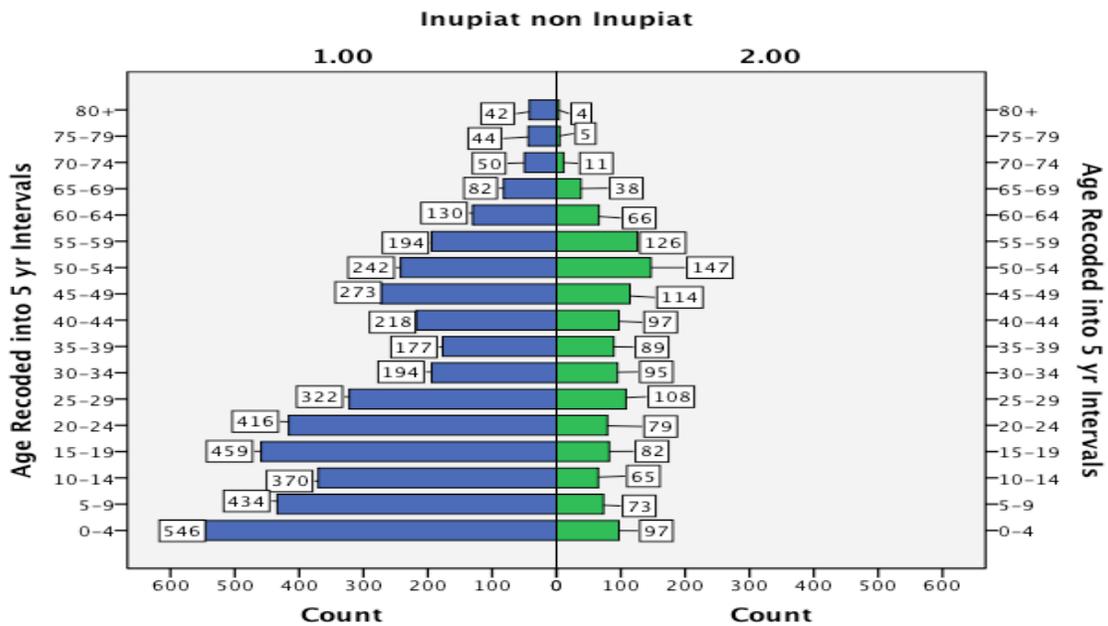
⁵ Alaska Department of Education and Early Development, Assessment and Accountability, District Enrollment, <http://www.eed.state.ak.us/stats/> Accessed 27 July 2011.

Chart 1: North Slope Borough Population by Age and Gender*



* Includes only those individuals responding to the census survey and to the questions about age and gender.

Chart 2: North Slope Borough Population by Age and Ethnicity*



* Includes only those individuals responding to the census survey and to the questions of age and ethnicity.

Dependency Ratios

Table 4 below compares the proportion (%) of the total North Slope Borough population that fall into various age intervals (cohorts). These age intervals are selected to create a total dependency ratio, in the case of our calculations this is represented by the equation:

$$\text{individuals } 0\text{-}15 \text{ years of age} + \text{individuals } \geq 65 / \text{individuals } 16\text{-}64.$$

Table 4 demonstrates a drop in the total dependency ratio from 58.6% to 55.3% between 2003 and 2010. Most of the change can be attributed to an increase in the proportion of individuals in the 16 to 64 years of age cohort while there have been slight increases in the 65 and older and the 0 to 15 year old cohorts, leading to drops in the total dependency ratio.

Table 4: North Slope Borough Dependency Ratios 2003 and 2010*

Dependency Ratios		
	2010	2003
% 15 years and Under	30.1%	31.4%
% 18 years and under	35.8%	N/A
% 18-24 years of age	13.6%	N/A
%55-64 years of age	9.3%	5.7%
%62 years and older	5.6%	N/A
%65 years and older	5.8%	5.6%
%16-64 years of age	64.1%	63.0%
%18-64 years of age	60.3%	N/A
Youth Dependency Ratio	46.9%	49.8%
Age Dependency Ratio*	8.4%	8.8%
Total Dependency Ratio	55.3%	58.6%

***Sample populations 2003 and 2010

Employment

Employment among North Slope Borough communities has demonstrated a continuing decline between 1998 and 2010, as shown by Table 5 below. Permanent full-time employment has decreased between 1998 and 2003 by 142 positions and between 2003 and 2010 by 254 positions. Smaller declines occurred in temporary/seasonal employment where a total of 118 positions were lost during the 13-year period, while unemployment has increased by 189 between 1998 and 2003 and by an additional 284 between 2003 and 2010.

Table 5: North Slope Borough Employment Status 1998 to 2010*

Individual HH Member Type of Employment			
Male	Type of Employment	Count	Percent
Employment	Permanent full-time	451	33.7%
	Temporary seasonal	196	14.7%
	Part-time	103	7.7%
	Unemployed	446	33.4%
	Retired	140	10.5%
	Total	1336	100.0%
Female			
Employment	Permanent full-time	497	39.3%
	Temporary seasonal	91	7.2%
	Part-time	120	9.5%
	Unemployed	416	32.9%
	Retired	141	11.1%
	Total	1265	100.0%

*Sample populations

Table 6: North Slope Borough Employment Status Iñupiat Only by Gender*

Type	1998	2003	2010
	Count	Count	Count
Permanent full time	2139	1997	1743
Temporary seasonal	521	507	343
Part-time	211	295	271
Unemployed	484	673	957
Total	3355	3472	3314

*Includes only those individuals responding to the survey and the question on type of employment.

The unemployment rate in the North Slope Borough has been and continues to be portrayed by the Alaska Department of Labor and Workforce Development considerably lower than the actual rate. Official statewide unemployment figures show the unemployment rate for the North Slope Borough in 2009 averaged 5.2 percent while the data in this study show the actual unemployment rate was over 5 times higher at 28.6 percent, up from 22.9 percent in 2003.

The major difference between the statistics reported by the Alaska Department of Labor and Workforce Development and those reported in this volume lies in the definition of unemployment used.

The Department of Labor and Workforce Development data is collected from those individuals who have made an attempt to find employment in the previous two-week period and who indicate that on an Employment Security bi-weekly report. Many studies of employment have demonstrated that reliance on this formal mechanism seriously underestimates the extent of unemployment, particularly in smaller, rural communities with few employment opportunities where there are large numbers of “discouraged workers”. These are individuals who are not counted in the official statistics either because they have exhausted unemployment benefits or have given up hope of finding employment, and in either case do not submit bi-weekly reports and are not counted among those who are officially unemployed.

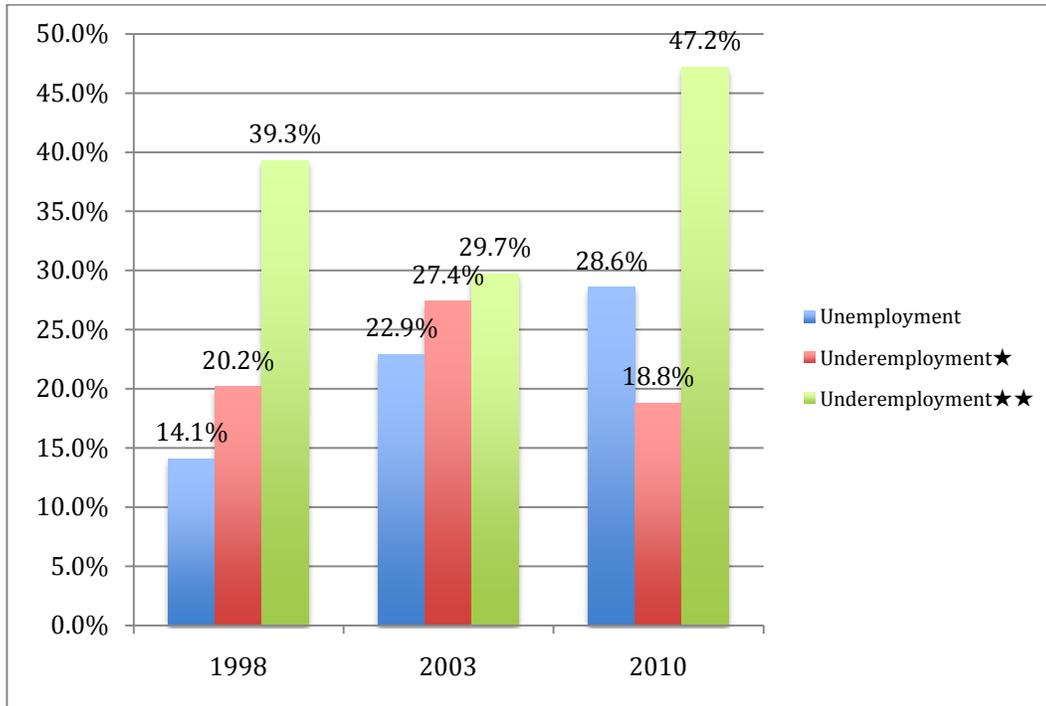
Table 7: North Slope Borough 2010: Number of Months Unemployed

Individual HH Member's Number of Months Unemployed			
Number of Months	Count	Percent	Cumulative Percent
0	1066	41.2%	41.2%
1	31	1.2%	42.4%
2	51	2%	44.4%
3	105	4.1%	48.5%
4	55	2.1%	50.6%
5	45	1.7%	52.3%
6	112	4.3%	56.7%
7	59	2.3%	59.1%
8	86	3.3%	62.3%
9	101	3.9%	66.2%
10	76	2.9%	69.1%
11	57	2.2%	71.3%
12	739	28.6%	100.0%
Total	2585	100.0%	

*Includes only those individuals responding to the survey and the question about unemployment.

In addition to unemployment, underemployment remains an acute problem in the North Slope Borough. We use two indicators to measure underemployment: individual responses to a question asking whether or not the individual worked less than 40 weeks during 2009; and, responses to a question asking whether individuals believed their employment did not make full use of their education, skills or abilities. These questions have been asked in North Slope Borough Economic Profile and Census Reports beginning in 1993, which provide a solid basis for comparison. Chart 3 below indicates that unemployment among individuals in North Slope Borough communities has more than doubled between 1998 and 2010 and has increased by 5.7 percent between 2003 and 2010. The number of those who perceived themselves as being underemployed actually fell slightly between 1998 and 2010, and dropped from 27.4 percent in 2003 to 18.8 percent in 2010. However, those individual who reported working less than 40 weeks during 2009 increased by 17.5 percent between 2003 and 2010.

Chart 3: North Slope Borough: Unemployment and Underemployment Comparisons 1998 to 2010*



*Includes only those responding to the survey and to the questions about unemployment and underemployment. ★Individuals who perceive themselves to be underemployed. ★★Individuals who worked less than 42 weeks during the preceding year.

Table 8: North Slope Borough Labor Force Comparisons: 1998 to 2010*

Categories	1998	2003	2010
Total Population	7530	7257	7998
Persons 16-64	4274	4285	3548
Labor Force	3866	3085	3349
Unemployment	484	665	957
Underemployment**	485	783	468
Underemployment***	1777	1230	1345

*Includes only those individuals responding to the survey and to questions about employment.
 ** Represents individuals who believe their employment does not utilize effectively their skills and abilities. ***Represents those individuals who worked less than 42 weeks during the previous 12 months.

There have been some significant shifts in employment patterns between 2003 and 2010, most notably the increase in employment by city governments in the Borough (from 66 people in 2003 to 113 in 2010) and the increase in employment by the Village Corporations and their subsidiaries (from 295 in 2003 to 334 in 2010). The North Slope

Borough remains the largest employer of residents in the communities, accounting for 1,264 or 51.8 percent of those employed when the North Slope Borough School District, the North Slope Borough CIP and Ilisagvik College are included. The Village corporations and their subsidiaries follow with 334 or 13.8 percent of those employed among the sample population, while city governments employ 113 individuals or 4.6 percent of those working.

Federal government employment on the North Slope has declined by 33 percent between 2003 and 2010 while state government employment has remained virtually stable. As noted in Table 8, city government employment has increased by 47 individuals or 71 percent over the same period. Overall, public sector employment rose by 104 individuals when Ilisagvik employees are included, or 7.8 percent, in the period between 2003 and 2010.

Table 9: North Slope Borough Employment by Employer

Employment - Individual Household Member's Employer?				
Employer	2003 Count	2003%	2010 Count	2010%
Federal government	61	2.8%	41	1.7%
State government	26	1.2%	25	1.0%
City government	66	3.0%	113	4.6%
NSB government	705	32.2%	742	30.5%
NSB School district	409	18.7 %	427	17.5%
NSB CIP	10	0.4%	28	1.1%
Private construction firm	43	1.9%	37	1.5%
ASRC or subsidiary	88	4.0%	69	2.8%
Village corporation/subsidiary	295	13.5%	334	13.8%
Finance/insurance	6	0.2%	3	0.1%
Transportation	53	2.4%	45	1.8%
Communications	8	0.3%	8	0.3%
Trade	31	1.4%	21	0.9%
Ilisagvik	62	2.8%	67	2.7%
Other	197	9.3%	374	15.3%
Total	2191	100%	2443	100%

*Includes only those individuals responding to the survey and the question about their employer

Table 10: 2010 North Slope Borough Employment by Employer, Gender and Ethnicity*

2010 Employment by Gender and Ethnicity				
		Iñupiat	Caucasian	Other
Employer	Gender	Count	Count	Count
Federal govt.	Male	7	6	3
	Female	14	6	5
State govt.	Male	5	4	0
	Female	7	6	3
City govt.	Male	43	5	3
	Female	59	2	1
NSB govt.	Male	283	72	68
	Female	207	52	59
NSB School district	Male	51	92	38
	Female	109	102	35
NSB CIP	Male	21	3	1
	Female	3	0	0
Oil industry	Male	26	6	1
	Female	4	0	1
Private construction firm	Male	13	4	6
	Female	13	0	1
ASRC or subsidiary	Male	29	2	3
	Female	33	0	2
Village corp./subsidiary	Male	157	13	7
	Female	147	4	4
Finance/insurance	Male	0	0	0
	Female	0	0	3
Transportation	Male	14	4	15
	Female	8	2	2
Communications	Male	4	2	1
	Female	0	0	1
Other	Male	134	64	71
	Female	134	60	61
Total		1525	511	395

*Includes only those individuals responding to the survey and the questions about ethnicity and employment

Private sector employment remained fairly steady between 2003 and 2010, buoyed primarily by the gain in Village corporation employment during that period. The largest change was in the “Other” employment category, which increased by 177 positions, an 89.8 percent change.

Table 10 below indicates that the reasons people have given for being unemployed have remained fairly stable in some areas and have shown significant change in others. People indicating that they could not find a job or were taking courses in either college or vocational/technical settings were virtually unchanged between 2003 and 2010. Those indicating they did not want a job declined slightly, while those indicating they were unemployed because of family responsibilities increased 53.6 percent, those indicating that work would conflict with subsistence activities increased by 71.1 percent, those claiming physical disability or poor health increased by 60.4 percent and those indicating other reasons for unemployment more than doubled.

Table 11: North Slope Borough Reasons for Unemployment 2003 and 2010*

Reason for Unemployment		
Reason	2003	2010
Did not want job	104	93
Could not find job	499	494
Physical disability/poor health	96	154
Wage work will conflict with subsistence	45	77
Family responsibilities(e.g. care of elder)	194	298
College or technical training	84	85
Other	103	207
Total	1125	1408

*Includes only those individuals responding to the survey and to the question regarding reason for unemployment.

Housing

Table 11 below shows the number of households by ethnicity and the number of people occupying them for each community as well as the total for the North Slope Borough. The communities outside Barrow show small to sizable gains in Iñupiat households, with small losses of non-Iñupiat households, between 2003 and 2010. Barrow displays a significantly different picture however, demonstrating a small gain of 59 Iñupiat households and at the same time a significant loss of non-Iñupiat population, 379 or 49.5 percent of the non-Iñupiat households. As the section of this report on Barrow indicates, there has been a substantial change in the ethnic composition of the community between 1998 and 2010. Barrow has moved from being only 53 percent Iñupiat in 1998 to 59 percent in 2003 and 65 percent Iñupiat in 2010. At the same time the Caucasian population has fallen from 24 percent of the total in 1998 to 16 percent in 2010 and the 'Other' population of the community has fallen from 23 percent to 19 percent of the total over the same period. Put differently, the Caucasian population of Barrow has fallen by one-third while the 'Other' population has fallen by a little more than one-sixth over that 12-year period.

Table 12: North Slope Borough 2010 Household by Household Size All Communities*

Ethnicity	Anaktuvuk Pass	Atkasuk	Barrow	Kaktovik	Nuiqsut	Point Hope	Point Lay	Wainwright	North Slope Borough
Iñupiat									
1	19	7	106	11	10	13	9	21	196
2	9	7	100	11	18	21	4	17	187
3	5	6	100	4	14	18	3	26	176
4	10	6	75	8	14	23	5	20	161
5	6	8	82	7	10	33	5	6	157
6	8	7	40	7	8	16	4	14	104
7	2	4	15	3	3	8	4	7	46
8	2	2	16	1	6	3	1	4	35
9+	4	2	22	1	2	5	4	3	43
	65	49	556	53	85	140	39	118	1105
Non-Iñupiat									
1	4	7	64	4	7	10	3	5	104
2	6	2	80	6	7	8	4	8	121
3	1	1	32	2	3	2	1	1	43
4	2	1	24	0	1	1	0	0	29
5	1	0	7	1	0	4	2	2	17
6	1	0	4	1	1	0	0	0	7
7	0	0	2	0	0	0	0	0	2
8	0	0	1	0	0	0	0	0	1
9+	0	0	3	1	0	0	0	0	4
	15	11	217	15	19	25	10	16	328

*Includes only those households responding to the survey and the question of household size.

These patterns mirror the changes in the total population of the North Slope Borough noted above: the Iñupiat population has increased to 76.4 percent from 74.1 percent in 2003, while the Caucasian population has fallen from 14.4 percent to 11.9 percent over the same 7-year period. The 'Other' population has remained stable during the 2003 to 2010 period.

The decline in the number of Caucasian households and individuals can be attributed at least in part to the decline in revenues experienced by the North Slope Borough beginning in 1998 and resulting in lost employment opportunities noted in the *2003 North Slope Borough Economic Profile and Census Report*. While the borough has rebounded from that decline, as discussed above, the employment situation was

exacerbated by the steep increases in energy costs at the same time that the national economy went into the doldrums beginning in 2007/2008, causing an exodus by many families out of North Slope communities. While Iñupiat families and individuals are returning, it is apparent that non-Iñupiat are not doing so with any alacrity.

Total Household Income by Ethnicity

Table 13: North Slope Borough 2010 Estimated Total Household Income by Ethnicity*

Estimated Household Income	Recode Ethnicity into Three Categories					
	Iñupiat		Caucasian		Other	
	Count	%	Count	%	Count	%
0-\$15,000	71	8.5%	1	0.4%	4	2.7%
15,001-29,999	106	12.7%	11	4.1%	6	4.1%
30,000-39,999	103	12.4%	4	1.5%	12	8.1%
40,000-49,999	78	9.4%	10	3.7%	10	6.7%
50,000-59,999	71	8.5%	23	8.6%	10	6.7%
60,000-69,999	72	8.7%	25	9.4%	6	4.1%
70,000-79,999	71	8.5%	26	9.7%	17	11.5%
80,000-89,999	49	5.9%	16	6.0%	13	8.8%
90,000-99,999	35	4.2%	17	6.4%	8	5.4%
100,000-124999	83	10.0%	41	15.4%	31	20.9%
125,000-149,999	39	4.7%	31	11.6%	10	6.8%
150,000+	54	6.5%	62	23.2%	21	14.2%
Total	832 (1105)	100.0%	267 (306)	100.0%	148 (191)	100.0%

* Results include only those households responding to the survey and the questions of household income and size. Numbers in parentheses are the total number of households in each ethnicity comprising the sample population.

Table 13 above demonstrates that three-fourths of Iñupiat households estimated their total household income when answering the survey, while approximately 2/3 of both Caucasian and ‘Other’ households did so. Table 12 also shows that 51.5 percent of Iñupiat households make less than \$60,000 while 81.7 percent of Caucasian households and 71.7 percent of ‘Other’ households make \$60,000 and over. Even more stark a contrast, 78.8 percent of Iñupiat households make less than \$100,000 while 50.2 percent of Caucasian households and 41.9 percent of ‘Other’ households make more than \$100,000.

Table 14 below represents the Calculated Total Household income of the households interviewed in the census survey. The calculated total household income includes the wages contributed by all household members, Permanent Fund Dividends distributed to household members, Social Security and pension income if applicable, child support payments if any, food stamps if any and income from other sources such as craft making.

Table 14: North Slope Borough 2010 Calculated Total Household Income by Ethnicity*

Calculated Household Income	Recode Ethnicity into Three Categories					
	Iñupiat		Caucasian		Other	
	Count	N%	Count	N%	Count	N%
0-\$15,000	170	15.4%	50	16.3%	38	19.9%
15,001-29,999	185	16.7%	16	5.2%	13	6.8%
30,000-39,999	95	8.6%	4	1.3%	12	6.3%
40,000-49,999	110	10.0%	10	3.3%	10	5.2%
50,000-59,999	82	7.4%	25	8.2%	9	4.7%
60,000-69,999	85	7.7%	20	6.5%	10	5.2%
70,000-79,999	69	6.2%	22	7.2%	16	8.4%
80,000-89,999	51	4.6%	17	5.6%	11	5.8%
90,000-99,999	50	4.5%	18	5.9%	11	5.8%
100,000-124,999	106	9.6%	34	11.1%	27	14.1%
125,000-149,999	38	3.4%	31	10.1%	18	9.4%
150,000+	64	5.8%	59	19.3%	16	8.4%
Total	1105	99.9%	306	100.0%	191	100.0%

e

*Results include only those households answering the questions about the different sources of income contributing to the total household income and ethnicity.

Among other things, Table 14 shows that the number of Iñupiat households making less than \$60,000 per year increased by 213 (or from 51.5 percent to 58.1 percent) when all facets of income are calculated, while the number of Caucasian households making \$60,000 and above decreased from 81.7 percent to 65.7 percent or by 17 households. Similarly, the 'Other' households making \$60,000 and above decreased by 3 from 109 to 106 and by 14.6 percent from 71.7 percent to 57.1 percent.

When comparing Estimated and Calculated household income by way of the two tables, at least two trends are suggested. On the one hand it appears that those Iñupiat households that did estimate total household incomes tend to underestimate those incomes. Caucasian households appear to more closely estimate their household income with some exceptions and 'Other' households appear to overestimate total household incomes of \$60,000 or less and have estimates of incomes over \$60,000 that more closely reflect the Calculated totals. On the other hand, it appears that many if not most of the households across all ethnic groups who failed to estimate total household incomes fall in the less than \$60,000 category when all sources of income are calculated.

Table 15 below shows the comparisons between average household and average per capita incomes for the period between 1993 and 2010. After gains each year to 2001, average household income appeared to fall in 2010 by \$8,415, based on the estimated household income data provided by household heads, which has been the measure, used on all iterations of the North Slope Borough Economic Profile and Census Report. However, the 2010 survey included questions that allowed for the calculation of all aspects of household income (regional and village dividend income, social security payments, pension

payments, Permanent Fund dividends, etc.) which then were calculated into the Total Household Income From All Sources variable. The result of using that variable provided an average calculated household income that represented a gain of \$13,937 from 2003.

Table 15: North Slope Borough 2010 Average Household and Per Capita Income 1993 to 2010*

North Slope Borough 2010: Average Household and Per Capita Income*		
Household Income	1993	\$44,462
	1998	\$51,121
	2003	\$55,793**
	2010 Estimated	\$47,378
	2010 Calculated	\$69,730
Per Capita Income	1993	\$12,874
	1998	\$13,633
	2003	\$24,932
	2010	\$33,640***

*Includes only those individuals and households responding to the survey and the questions about income. ** The 2003 Estimated HH Income of \$55,753 in 2009 constant dollars = \$65,005. ***The 2010 Estimated per capita income of \$33,640 = \$28,385 in 2003 constant dollars

Table 16: North Slope Borough 2010 Average and Calculated Total Household Income by Ethnicity*

	Iñupiat	Caucasian	Other
Ave, Estimated Total HH Income	\$56,578.02	\$89,960.35	\$86,455.90
Ave. Calculated Total HH Income	\$60,699.48	\$102,438.54	\$75,388.68

*Includes only those responding to the survey and questions about income.

Table 16 demonstrates the disparity between Iñupiat Estimated and Calculated Household Income and those total household incomes of Caucasian and 'Other' residents. While Iñupiat estimated income more closely approximated their calculated total household income average, Caucasian households underestimated their total incomes by a larger margin, while 'Other' households over-estimated by \$10,000 their total household incomes.

Poverty Level

Table 17: North Slope Borough 20109 Iñupiat Households: Household size by Poverty Income Threshold*

Calculated HH Income to Poverty Level	1	2	3	4	5	6	7	8	9	10	11	12	13+
	No.												
\$0-13,530	61	33	11	19	15	9	5	2	0	2	1	0	0
\$13,351-18,210	23	15	5	2	3	2	0	0	0	2	0	0	1
\$18,211-22,890	18	14	19	3	5	1	0	0	0	0	0	0	0
\$22,891-27,570	17	10	9	15	3	1	1	0	1	2	0	0	2
\$27,571-32,250	14	10	7	8	5	1	0	0	0	1	1	0	0
\$32,251-36,930	13	14	3	6	12	0	2	0	0	0	0	0	0
\$36,931-41,610	8	10	12	2	8	6	0	0	0	1	0	0	1
\$41,611-46,290	11	10	9	7	8	14	1	0	0	0	0	0	0
\$46,291-50,970	2	10	13	6	3	1	2	1	0	0	0	0	0
\$50,971-55,650	6	3	4	6	2	6	5	5	0	0	0	0	0
\$55,651-60,330	4	6	6	8	6	5	1	2	2	0	0	0	0
\$60,331-65,010	8	6	10	7	4	5	1	1	3	0	0	0	0
\$65,011-highest	11	46	68	72	83	53	28	24	10	8	6	2	3
	196	187	176	161	157	104	46	35	16	16	8	2	7

Table 17 above shows the distribution of Iñupiat households below the poverty level for their household size. For example, poverty guidelines for 2010 indicate that for the state of Alaska a single person household with income of less than \$13,530 is below the poverty threshold. As the table indicates, there are 158 Iñupiat households (in the highlighted area right of the diagonal) ranging in size from one to ten people with incomes at or below \$13,500. All Iñupiat households falling in the shaded area to the right of the table, a total of 256 or 23.2 percent of the Iñupiat sample of households fall below the federal guidelines for poverty.

Table 18: North Slope Borough 2010 Total Households: Household Size by Poverty Income Threshold*

Calculated HH Income to Poverty Level	Recorded HH Size to Ordinal for Poverty Calculations												
	1	2	3	4	5	6	7	8	9	10	11	12	13+
	N	N	N	N	N	N	N	N	N	N	N		
\$0-13,530	78	65	27	26	18	16	6	4	2	2	1	0	0
\$13,351-18,210	25	16	5	2	4	2	0	0	0	1	0	0	1
\$18,211-22,890	21	15	19	5	7	1	0	0	0	0	0	0	0
\$22,891-27,570	22	12	10	17	4	2	1	0	1	0	0	0	2
\$27,571-32,250	15	13	7	13	5	1	0	0	0	0	1	0	0
\$32,251-36,930	16	16	5	6	12	0	4	0	0	0	0	0	0
\$36,931-41,610	16	12	13	2	8	6	0	0	0	0	0	0	1
\$41,611-46,290	14	12	9	8	9	14	1	0	0	0	0	0	0
\$46,291-50,970	6	12	18	6	3	1	2	1	0	0	0	0	0
\$50,971-55,650	14	8	5	7	2	7	5	5	0	0	0	0	0
\$55,651-60,330	16	6	8	10	8	6	1	2	2	0	0	0	0
\$60,331-65,010	14	11	11	7	5	5	1	2	3	0	0	0	0
\$65,011-highest	73	144	117	107	108	63	34	28	13	8	6	2	3
Total	330	342	254	216	193	124	55	42	21	11	8	2	7

*Includes only those households responding to the survey and to the questions of household size and household income.

When the households of all ethnicities are included in the poverty income threshold calculations (1605 households responding and providing answers regarding household size and household income), there are a total of 365 households that fall below that threshold. In summary, 21.3 percent of the total households in the North Slope communities fall at or below the U.S. Poverty Income Threshold level, while 23.2 percent of all Iñupiat households are below that Poverty Income Threshold level.

Educational Attainment

Table 19 below demonstrates some interesting shifts in both educational attainment and in population demographics among the residents of the North Slope Borough. The number of children who have yet to enter school has increased by 224 or 59.3 percent between 1998 and 2010 and by 125 or 26.4 percent between 2003 and 2010. The number of elementary age children has increased by 132 or 21.6 percent between 2003 and 2010 after a precipitous decline of 343 individuals between 1998 and 2003. The trend has yet to appear in the Middle School and High School age populations, which suggest the possibility that population returning to the North Slope Borough communities includes families with primarily younger children. It also suggests that the birthrate among Iñupiat families is increasing.

The number of individuals not finishing high school has declined, while the number of individuals earning high school diplomas continues an upward trend since 1998. The number of individuals earning GEDs has declined steadily beginning in 1998, as has the number of individuals earning vocational and/or technical degrees. This latter trend is surprising, given the centrality of Iḷisaġvik to the educational mission of the North Slope

Borough. The number of individuals having taken some college courses has increased by 22 percent since 2003, and those earning Masters degrees have increased by 23.8 percent during the same period. At the same time, the number earning Baccalaureate degrees and those earning Professional degrees have declined by 14.9 percent and 45.2 percent respectively. The latter categories undoubtedly reflect the make-up of those working in the field of education and the volatility of that workforce due to in- and out-migration on the North Slope.

Table 19: North Slope Borough Education Status of Household Members 1998 to 2010*

	Number	Percent	Cumulative Percent
Has not started school	602	11.1	11.1
Elementary school	744	13.7	24.7
Middle school	338	6.2	31
High school	464	8.5	39.5
Did not finish high school	424	7.8	47.3
High school diploma	1344	24.7	72
GED	212	3.9	75.9
Vocational technical graduate	95	1.7	77.6
Some college	742	13.6	91.3
B.A. degree	268	4.9	96.2
M.A. degree	151	2.8	99
Professional degree	34	0.6	99.6
Other (specify)	23	0.4	100
Total	5441	100	

*Incl

udes only those individuals responding to the survey and the question of educational achievement

Table 20: North Slope Borough 2010 Background and Educational Interests for Iñupiat* Households

Employment and/or Interest in Education	Count	Percent	Cumulative Percent
Primarily a student	216	10%	10%
Job situation unsettled	605	28.1%	38.2%
Job is permanent	645	30.0%	68.1%
No connection between employment and education	686	31.9%	100%
Total	2152	100%	

*

*Includes only individuals from Iñupiat households who responded to the census survey and to the question about education background in interests.

Table 20 above is intended to demonstrate whether or not individuals perceive a relationship between education and employment opportunities. In 2010 individuals were almost evenly divided between being in an employment situation that was not considered permanent, being in one that was permanent, and being in a

situation where there was seen to be no connection between one's education or potential education and any potential employment. The information was not reported for all communities in the 2003 Economic Profile and Census Report, providing no basis for a comparison of this table.

Table 21 below shows that a disparity between the educational attainment of Iñupiat and other ethnicities continues to exist in the North Slope Borough, although there are some signs of those disparities lessening. For example in 2010, 1,139 or 27.4% of Iñupiat responding to the question indicated they had earned a high school diploma, up from 888 in 2003. While Iñupiat individuals have earned Baccalaureate, Masters, Ph.D. and professional degrees (66 or 1.6 percent of Iñupiat respondents), the majority of individuals holding these degrees are non-Iñupiat (62.2 percent of Caucasians responding and 17.4 percent of the 'Other' respondents). Even with the gains in education made by Iñupiat, the majority of the non-Iñupiat labor force on the North Slope Borough is mostly college educated and is undoubtedly drawn to the Borough by the employment opportunities requiring the skills they possess.

Table 21: North Slope Borough 2010 Individual Educational Attainment by Ethnicity*

Individual's Highest Level of Education	Ethnicity Recoded 3 Attributes					
	Iñupiat		Caucasian		Other	
	Count	Percent	Count	Percent	Count	Percent
Has not started school	512	12.3%	32	4.9%	58	9.1%
Elementary school	640	15.4%	42	6.4%	62	9.7%
Middle school	298	7.2%	13	2.0%	27	4.2%
High school	397	9.6%	22	3.4%	45	7.1%
Did not finish high school	393	9.5%	10	1.5%	21	3.3%
High school diploma	1139	27.4%	68	10.4%	136	21.4%
GED	185	4.5%	10	1.5%	17	2.7%
Vocational/technical graduate	55	1.30%	28	4.3%	12	1.9%
Some college	457	11.0%	139	21.3%	146	23.0%
B.A. degree	42	1.0%	142	21.7%	84	13.2%
M.A. degree	13	0.3%	113	17.3%	25	3.9%
Professional degree	11	0.3%	21	3.2%	2	0.3%
Other (specify)	8	0.2%	14	2.1%	1	0.2%
Total	4150	100.0%	654	100.0%	636	100.0%

*Includes only those individuals responding to the survey and the question about educational attainment.

Table 22 below emphasizes that the disparities continue, and in fact appear to be widening between Iñupiat and non-Iñupiat in terms of educational attainment. The number of Iñupiat who have never enrolled in college courses has increased by 45 percent between 2003 and 2010 while the number of those graduating from college has actually decreased by 9.3 percent during that same period. The number of Iñupiat currently attending college has decreased by 13.3 percent, while the number having enrolled in courses in the past and those completing courses have increased slightly. Overall, the table suggests that the majority of Iñupiat community members, and Iñupiat youth in particular, do not see higher education as an avenue toward future employment opportunities. This conclusion is supported by the table on Iñupiat Households' Background and Educational Interests above, where only 10 percent of respondents indicated they were in school and 61.9 percent indicated they were either in a permanent job or did not perceive there to be any connection between education and employment.

Table 22: North Slope Borough 2010 Iñupiat Amount of College Work Done or Attempted*

Status	2010		2003	
	Number	Percent	Number	Percent
Never enrolled	1636	65.9%	1069	57.4%
Enrolled in past	141	5.7%	128	6.9%
Currently enrolled	39	1.6%	54	2.9%
Completed courses	571	22.9%	504	27.1%
Graduated from college	97	3.9%	107	5.7%
Total	2484	100.0%	1862	100.0%

Table 23 below provides some support to this conclusion as well, given the decline among Iñupiat community members expressing a desire for training in most of the occupations tied directly to higher education or training.

Table 23: North Slope Borough 2010 Iñupiat Preferences Training/Education

Preferred Additional Education or Training*		
Training For	2003	2010
	Count	Count
English	25	10
Word processing	104	33
Accounting	134	93
Heavy equipment	103	71
Public administration	75	36
Wildlife Mgt.	0	26
Food service	38	31
Business Mgt.	175	121
Land Mgt.	9	22
Computer programmer	140	49
Oil field worker	25	25
Teacher	136	69
Health worker	119	91
Paralegal	0	7
Carpentry	99	67
Welding	43	17
Mechanic	103	98
Electronics	37	22
Surveyor	0	3
Pilot	0	15
Other	366	218
Total	1731	1124

*Includes Iñupiat individuals who responded to the survey and the question about education preferences

Health

This section was prepared by Jana McAninch for the North Slope Borough Health Department. Questions regarding the report should be addressed to the Borough Health Department rather than to any of the authors.

The 2010 Report contains an expanded section on the health status of individuals living in North Slope Borough communities. The tables below were derived from questions developed in conjunction with the North Slope Health Department in an effort to provide community health information where reliable data from other sources are not available, and to provide some basic measures of community health and health-related behaviors at the village level.

Table 24: North Slope Borough 2010 General Health Status of Residents

Reported General Health Status of Adults in NSB Villages										
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB	
“Very good” to “excellent”	32%	21%	53%	38%	39%	36%	52%	35%	46%	
“Fair” to “Poor”	4%**	34%	13%	19%	22%	21%	10%	21%	16%	
Chronic Health Problems: Adults										
						Adult HH Heads	All NSB Adults	Alaska/US Adults		
Ever told by a health professional have:										
Thyroid problem						6%	4%	9% (U.S.) ³		
Diabetes						7%	6%	6% (Alaska) ¹ 9% (U.S.) ¹¹		
High Blood Pressure						28%	20%	25% (Alaska) ⁴ 24% (U.S.) ¹¹		
High cholesterol						19%	13%	38% (Alaska) ⁴		
Heart disease						7%	5%	12% (U.S.) ¹¹		
In the past 12 months, experienced:										
Daily pain or arthritis that limits activities or requires prescription pain medicine						29%	21%	(see ref) ⁵		
Frequent/chronic ear infections						5%	4%	N/A		
Chronic breathing problems (such as asthma, emphysema, chronic cough that won't go away)						13%	8%	(see ref) ⁶		
Health Insurance										
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	W AI	NSB	Alaska
Have health insurance, including IHS eligibility	97%	100 %	97%	90%	97%	99%	100 %	9 %	97%	82% ¹
Have health insurance, other than IHS eligibility	58%	70%	72%	38%	42%	52%	45%	5 %	64%	
								9 %		
								9 %		
								9 %		
Tobacco Smoking: NSB Household Heads by Community										
Smoke tobacco in any form:	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB	
All household heads	65%	61%	44%	65%	62%	49%	58%	53%	50%	
Iñupiat household heads	71%	73%	61%	75%	71%	54%	72%	59%	63%	

A large majority of NSB residents had “good” to “excellent” reported general health status, a testament to the ability to adapt to a harsh physical environment as well as to extraordinary social, cultural, and economic changes. The overall good health of NSB residents also likely reflects substantial investments in public health and other health and

social services, education, water and sanitation, and in supporting cultural values and subsistence activities. The findings from this census with regard to general health status are fairly consistent with estimates of self-reported general health in the NSB from the Alaska Behavioral Risk Factor System survey (BRFSS). The BRFSS survey has been conducted in Alaska since the early 1990's and has shown a decline in self-reported health status both in the NSB and statewide during this time. Please see the *NSB Baseline Community Health Analysis* for further discussion of trends in general health status in the NSB.

Amount smoked, by Community of Residence									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	NSB
HH heads who smoke one or more packs a day	31%	26%	21%	44%	31%	23%	25%	23%	24%
Allow Smoking in House, among Household Heads who smoked									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	NSB
% who permit smoking in the house	40%	42%	31%	63%	35%	30%	35%	21%	33%
Support of Tobacco Tax among NSB Household Heads									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB
Support tax for prevention program?	48%	70%	58%	48%	43%	46%	34%	35%	53%
Overweight and Obesity among NSB Household Heads									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB
Overweight (BMI 25-29.9 kg/m ² , based on self-reported height and weight)	32%	26%	34%	34%	38%	29%	17%	36%	33%
Obese (BMI 3/m ² or higher, based on self-reported height and weight)	23%	38%	40%	32%	33%	48%	46%	41%	39%
Ave. days/week, do half hour moderate physical activity?	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB
"Never"	18%	24%	16%	17%	19%	10%	8%	11%	16%
"Five days per week or more"	39%	29%	41%	50%	44%	49%	59%	59%	44%
Soda and Sugar-sweetened Beverage Consumption: Iñupiat Household Heads									
Reported average daily consumption	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	NSB Iñupiat
NONE	25%	21%	16%	15%	11%	16%	18%	14%	16%
2 OR MORE	49%	48%	53%	65%	68%	66%	63%	64%	58%
Helmet use: Do Household Heads Wear A Helmet When Riding a Snowmachine or 4-wheeler									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	Villages other than Barrow
All Household Heads	11%	2%*	30%	4%*	9%	4%	3%*	3%*	5.1%
Iñupiat Household Heads	9%	2%*	17%	3%	9%	4%	3%*	3%*	4.7%

Adults of all age groups in the NSB were less likely to report “very good” or “excellent” health than were adults statewide. Moreover, reported health status among Iñupiat adults was considerably worse than that of Caucasians and those of other ethnic groups in the North Slope. This inequality, or “health disparity,” between general health status of Iñupiat and non-Iñupiat residents is similar to that seen statewide between Alaska Natives and non-Natives. Reported general health status among Iñupiat adults was similar to that of Alaska Natives statewide. Significant differences in general health status were also seen between Barrow and the other North Slope villages, with general health status being worse in the villages other than Barrow. These differences were observed both in adults and children and persisted when comparing Iñupiat residents only.

Children in the NSB also had considerably worse reported general health than children statewide. Moreover, Iñupiat children in the NSB were less likely to be reported to have “very good” to “excellent” health than were Caucasian children. Other than demonstrating a very high prevalence of frequent or chronic ear infections among NSB children, the health data gathered in this census did not explain the observed disparities in children’s general health in the NSB. For an expanded discussion of children’s health in the NSB, please refer to the *NSB Baseline Community Health Analysis*.

FOOD INSECURITY: IÑUPIAT HOUSEHOLD HEADS									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	Villages other than Barrow
Times last year when household found it difficult to get the foods they needed to eat healthy meals	62%	56%	33%	39%	38%	38%	50%	47%	46%
If yes, because not able to get enough subsistence foods	83%	41%	43%	58%	63%	64%	47%	41%	57%
If yes, because not able to get enough store foods	78%	100%	87%	84%	84%	85%	100%	94%	88%
Times last year when household members did not have enough to eat	49%	25%	22%	23%	28%	26%	26%	33%	30%
Iñupiat Household Heads: Household Member Hurt by Alcohol or Drugs?									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	Villages other than Barrow
Percent indicating household member had been hurt by alcohol or drugs in last year	24%	31%	35%	44%	28%	24%	16%	15%	25%
Iñupiat Household Heads: Community Impacted by Alcohol or Drugs									
Percent indicating the health of their community had been hurt by alcohol or drugs in past year	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	Villages other than Barrow
NEVER	3%	28%	8%	14%	5%	11%	11%	13%	12%
SOMETIMES	41%	39%	36%	45%	48%	44%	49%	39%	43%
OFTEN	55%	33%	57%	41%	47%	45%	41%	49%	45%

General Health Status of Children in the North Slope Borough

Chronic Health Problems among Children (ages 0-17) in NSB Villages									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	All NSB
In the past 12 months has child had:									
Frequent (3 or more) or chronic ear infections	20%	14%	23%	10%	18%	12%	15%	17%	19%
Breathing problems (such as asthma, emphysema, chronic cough)	5%	7%	6%	7%	8%	5%	1%*	2%*	5%
Teen Tobacco Smoking, by community of residence									
	AKP	ATQ	BRW	KAK	NUI	PHO	PTL	WAI	NSB
Teens (ages 14-18): smoke tobacco in any form	32%	15%*	8%	26%	43%	12%	15%	31%	16%

Subsistence

While there are variations between communities, the use of subsistence resources among those communities remains an important aspect of life for Iñupiat households, as a means to place food on the table and to maintain cultural and traditional values. Iñupiat households defined as *heavily subsistence reliant*⁶ or who depend upon local sources of meat, fish, birds and other resources for half or more of the food they consume have increased in the period between 2003 and 2010. In the 2010 North Slope Borough Economic Profile and Census Report, fully 98.7 percent of Iñupiat households reported using subsistence resources, with over two-thirds (66.7 percent) depending on those resources for one-half or more of their food and slightly less than one-third depending on less than one-half for sustenance.

While sharing of subsistence resources with other households in one's own community and in other communities is an important component of the Iñupiat values system, declines in the amount of subsistence resources shared between households have continued to occur since the 2003 Economic Profile and Census Report. In 2010, 57 percent of Iñupiat households reported that less than one-half of their subsistence foods used came from other households in the community and 54.3 percent of Iñupiat households reported that they shared less than one-half the subsistence resources they harvested with other households. The indication is that the sharing values remain important to Iñupiat households on the North Slope, but that possibly the economic conditions of the last few years, as reflected in the food security questions, have caused a shift in the proportion of subsistence resources shared.

Accompanying this shift is a continuation of a trend noted in the *2003 North Slope Borough Economic Profile and Census Report*, a change in where subsistence resources are

⁶ See Usher, Peter J "Sustenance or Recreation?: The Future of Native Wildlife Harvesting in Northern Canada", in *Proceedings: First International Symposium on Renewable Resources and the Economy of the North*, Milton Freeman, Ed. Pp. 56-71, Ottawa: Association of Canadian University for Northern Studies. See also Usher and George Wenzel, 1987 "Native Harvest Surveys and Statistics and Use. *Arctic* 40:145-160

shared. Iñupiat households, at least those in the communities to the east of Point Lay, are increasingly sharing within their own community and have decreased the extent to which they share with households in other communities. Ninety-three point nine percent of Iñupiat households indicated they shared subsistence foods within their own community, while only 61.2 percent indicated they shared with other North Slope Borough communities. Even less, 29.9 percent shared with Northwest Arctic Borough and Anchorage households, and sharing dropped well below 20 percent with households in other Alaska cities. However, as the section on Point Hope indicates, Iñupiat in that community continue to share at a high level with NANA communities as well as with people in Seattle and elsewhere outside Alaska.

Language Use

An important goal of the North Slope Borough has been to increase the ability of individuals to speak and read Iñupiaq, and substantial resources and effort have been devoted to this goal by the North Slope Borough School District over the past several years. Two measures of Iñupiaq fluency have been used in this survey: A question was asked to determine how many individuals in the household speak and/or read Iñupiaq. This is the measure used in the *1993 and 1998 North Slope Borough Economic Profiles and Census Reports* and to provide a basis of comparison. In the *2003 North Slope Borough Economic Profile and Census Report*, a scaled question that was developed by the North Slope Borough School District was added to refine understanding of the quality of that fluency.

As was the case in 2003, the results show that the responses to the first question tend to provide estimates of Iñupiaq fluency between 25 and 30 percent higher than do responses by the same individuals to the scaled question. Table 24 below reflects the answers to the scaled question on Iñupiaq fluency and shows that 23.5 percent of Iñupiat household members are considered fluent Iñupiaq speakers, with 18.2 percent preferring to speak Iñupiaq. Only 9.9 percent of those fluent are between the ages of 0 and 19, while 8.9 percent are between 20 and 44, and 20.6 percent are 65 and older. Sixty point 6 percent of the fluent Iñupiaq speakers are between the ages of 45 and 64. These figures suggest that the effort by the school district to increase individuals' ability to speak Iñupiaq is paying small dividends at this time, as the age group most likely to have been affected by that effort represents less than 10 percent of fluent speakers, and 33 or 32.7 percent of that group is of preschool age (0 to 4).

Table 25: Iñupiaq Fluency Among Iñupiat Household Members*

Iñupiaq fluency - how fluently does individual household member speak Iñupiaq?		
	Number	%
Speaks Iñupiaq fluently & prefers this language	737	18.2%
Speaks Iñupiaq fluently but prefers another language	216	5.3%
Speaks Iñupiaq but with difficulty or with minor flaws	128	3.2%
Understands Iñupiaq well & speaks enough	232	5.7%
Understands Iñupiaq well but hardly speaks it	461	11.4%
Understands some Iñupiaq conversations & speaks enough	270	6.7%
Understands simple questions and directions, speaks a little	491	12.1%
Understands simple questions and directions but hardly speaks any	532	13.2%
Understands at least two dozen Iñupiaq words.	341	8.4%
Understands at least five or six Iñupiaq words	284	7.0%
Does not understand more than a few Iñupiaq words.	350	8.7%
Total	4042	99.9%

Political Participation

We asked heads of households in all communities basic questions to determine their level of political participation. Respondents were asked if they were registered to vote and if so, whether they voted in elections at different levels. While voting is the lowest level of participation, it does provide some indication of how actively individuals participate and at what levels. The data demonstrate some interesting trends that would need further study to ascertain their validity, primarily because they challenge some of the conventional wisdom about the political process.

North Slope Borough residents are registered to vote on the North Slope at an 83.2 percent level, with 89.9 percent of Iñupiat individuals registered, two-thirds of Caucasians and 71 percent of “Other” residents.

When voting patterns are examined, Iñupiat voters tend to be most active in North Slope Borough elections (at a 74.5% rate), and in state elections (or at least the last gubernatorial election in 2008 at 72.3 percent), and least active in national elections (67.6 percent turnout) and city elections (69.3 percent turnout).

Caucasian residents tend to be least active in city elections (44 percent turnout) and North Slope Borough elections (46 percent turnout) and most active in national elections (80.5 percent) and the 2008 state election (61 percent). Participation by “Other” residents tends to be lower at all levels but follows the pattern of Caucasian voting in that turnout ranges from 52.9 percent in North Slope Borough elections to 48.9 percent in city elections to 59.6 percent in state elections to 66.1 percent in national elections.

In general, turnout is remarkably high among North Slope Borough residents, even in city elections. By way of comparison, local elections in Anchorage and large cities outside Alaska ranges as low as 11 percent to a high of 30 percent. The North Slope Borough trends show that Caucasian and “Other” residents voting patterns are reflective of national trends

where people participate most often in national elections, less so in state elections and least in local ones. This pattern undoubtedly also reflects their degree of interest at each level.

Table 25: North Slope Borough 2010 Registration and Voting in Elections*

		Iñupiat	%	Caucasian	%	Other	%
Registered to Vote?	Yes	986	89.9%	204	66.7%	134	70.9%
	No	111	10.1%	102	33.3%	55	29.1%
Vote in NSB Election?	Yes	813	74.5%	139	46.0%	100	52.9%
	No	278	25.5%	163	54.0%	89	47.1%
Vote in City Election?	Yes	755	69.3%	133	44.0%	92	48.9%
	No	335	30.7%	169	56.0%	96	51.1%
Vote in State Election?	Yes	791	72.4%	187	61.7%	112	59.6%
	No	301	27.6%	116	38.3%	76	40.4%
Vote in National Election?	Yes	739	67.6%	244	80.5%	125	66.1%
	No	354	32.4%	59	19.5%	64	33.9%

*Includes only those heads of household responding to the survey and the questions about registration to vote and voting in elections.

The Iñupiat voting patterns oppose the norm of participation at the national level. Iñupiat residents vote more often in local elections (borough, city and state) and their participation declines, if only slightly at the national level. This pattern also is undoubtedly reflective of Iñupiat voters' interests, greater at local levels, then state, then national.

Cost of Living

Individuals in each of the communities collected the comparative market basket prices in table 29 below by visiting the local store and gas station. In the past, the North Slope Borough Economic Profile and Census Report has relied on the University of Alaska Cooperative Extension Service (CES) comparative food costs as a means of checking our price lists, but the CES study does not include the North Slope this year. The Alaska Department of Labor and Workforce Development's "Alaska Economic Trends" cites the 2009 Alaska Geographic Differential Study results showing that Barrow's cost of living is one and one-half as much as Anchorage, and in general Barrow is the least expensive of the North Slope Borough communities in terms of our market basket comparison.

The "Trends" do not include food costs for any North Slope Borough community, nor does the study by the Alaska Department of Commerce, Community and Economic Development also cited. Table 29 shows that, with very few exceptions, food items in Barrow cost at least twice as much as they do in Anchorage. The table also shows that, depending on the item; food costs in Nuiqsut are between one-third and twice as much as they are in Barrow. Much of the costs for fresh vegetables and meats especially can be attributed to the transportation costs. However, the weight of canned goods, juices and other items also adds appreciably to transportation costs. For example, see the cost differential of chicken noodle soup, from \$1.50 in Anchorage to \$5.15 in Barrow to \$6.25 in Nuiqsut.

Table 29: 2010 Comparative Cost of Living Market Basket Survey

Item	Amount	Anchorage	Barrow	Nuiqsut	Point Hope
Frozen French Fries	32 oz.	\$4.59	\$8.59	\$10.55	\$10.89
Instant Mashed Potatoes	28 oz.	\$3.29	\$7.95	\$8.19	\$10.25
Cabbage/fresh	1 lb.	\$1.29	\$2.99	\$3.99	\$5.37
Carrots/fresh	1 lb.	\$1.29	\$3.29	\$6.99	\$6.59
Celery/fresh	1 lb.	\$1.29	\$3.29	\$5.99	\$2.89
Lettuce/fresh	1 lb.	\$1.48	\$3.79	\$7.99	\$2.95
Onions/fresh	1 lb.	\$.50	\$3.99	\$3.49	\$3.39
Tomatoes/fresh	1 lb.	\$ 1.98	\$5.99	\$5.99	\$3.29
Corn/canned whole kernel	15.25 oz.	\$ 1.45	\$3.69	\$3.25	\$4.15
Green Beans/ canned	14.5 oz.	\$ 1.45	\$3.19	\$3.55	\$4.39
Spinach/ canned	14 oz.	\$ 1.45	\$3.19	\$3.55	\$2.89
Peas/ canned	15 oz.	\$ 1.45	\$3.19	\$3.55	\$2.55
Tomatoes/ canned	28 oz.	\$ 2.69	\$6.29	\$3.55	\$5.99
Catsup	36 oz.	\$ 2.29	\$6.99	\$7.65	\$6.69
Pickles/ dill whole	20 oz.	\$ 3.45	\$7.65	\$7.99	\$7.95
Apples/ fresh	1 lb.	\$ 2.29	\$3.79	\$4.79	\$3.29
Bananas/ fresh	1 lb.	\$.89	\$2.99	\$4.59	\$3.29
Cantaloupe/ fresh	1 lb.	\$1.69	\$3.69	\$3.89	\$3.75
Grapefruit/ fresh	1 lb.	\$ 1.79	\$3.69	\$4.59	\$3.29
Oranges/ fresh	1 lb.	\$ 2.49	\$3.49	\$4.99	\$1.89
Strawberries/ frozen	16 oz.	\$ 4.69	\$5.65	\$27.99	\$8.49
Applesauce/ canned	45 oz.	\$ 3.69	\$9.19	\$9.15	\$6.65
Fruit cocktail/ canned	15 oz.	\$ 1.43	\$4.15	\$3.95	\$4.75
Peaches/ canned	15.25 oz.	\$ 1.43	\$4.15	\$3.95	\$4.79
Pears/ canned	15 oz.	\$ 1.59	\$4.15	\$3.95	\$4.75
Apple/100% juice/ canned	46 oz.	\$ 3.49	\$7.15	\$7.19	\$14.85
Grape juice/ frozen	12 oz.	\$ 1.89	\$4.69	\$5.15	\$3.29
Grape/ 100% juice/ canned	46 oz. (64 oz.)	\$ 4.39	\$10.75	NA	\$12.55
Grapefruit juice/ canned	46 oz. (64 oz.)	\$ 5.19	\$9.89	NA	\$12.55
Orange juice/ frozen	12 oz.	\$ 2.23	\$4.85	\$6.39	\$5.75
Orange juice/ canned	46 oz. (64 oz.)	\$ 4.49	\$10.99	\$9.15	\$11.69
Oatmeal/ old fashioned	42 oz.	\$ 5.69	\$10.65	\$11.39	\$12.35
All purpose flour/ enriched	5 lbs.	\$ 3.45	\$12.75	\$10.15	\$9.65
Rice	2 lbs.	\$ 2.99	\$5.95	\$5.95	\$13.19
Biscuit mix	40 oz.	\$ 3.69	\$5.99	\$9.65	\$9.65
Cake mix/ yellow	1 lb.	\$ 1.99	\$4.69	\$4.55	\$5.57
White bread/ enriched	24 oz.	\$ 3.49	\$5.75	\$4.19	\$5.89
Whole grain bread	24 oz.	\$ 5.49	\$6.95	\$8.55	\$5.89
Pie/ frozen/ready to bake	37 oz.	\$ 7.99	\$15.39	\$17.25	\$18.49

Item	Amount	Anchorage	Barrow	Nuiqsut	Point Hope
Pastry/ frozen	11.5 oz.	\$ 5.29	\$5.79	\$6.55	\$6.79
Soup/ chicken noodle	26 oz.	\$ 1.50	\$5.15	\$6.25	\$3.15
Macaroni and Cheese	7.3 oz.	\$ 1.89	\$2.29	\$2.09	\$3.79
Whole milk/ fresh	Gallon	\$ 3.39	\$11.79	1 qt. \$4.25	\$22.21
Yogurt/ plain	6 oz.	\$.83	\$1.50	\$2.05	\$2.09
Natural cheddar cheese	8 oz.	\$ 3.99	\$6.85	\$6.99	\$14.99
American cheese/sliced	12 oz.	\$ 5.99	\$7.75	\$9.35	\$6.69
Ice cream/ bulk	5 quarts	\$ 7.49	1 pt. \$8.49	NA	\$23.35
Chuck steak bone-in	1 lb.	\$ 1.91	\$7.99	\$8.99	\$11.09
Round steak. Bone-in	1 lb.	\$ 3.99	\$7.79	NA	\$10.59
Rump roast/ boneless	1 lb.	\$ 5.49	\$7.29	NA	\$10.39
Pork chops/ bone-in	1 lb.	\$ 2.99	\$6.99	\$8.99	\$11.69
Pork Spareribs	1 lb.	\$ 3.49	\$6.49	\$6.49	\$7.69
Bacon	1 lb.	\$ 5.49	\$10.59	\$9.69	\$ 10.35
Frankfurters	1 lb.	\$ 6.29	\$7.39	\$9.29	\$9.95
Bologna	1 lb.	\$ 3.49	\$4.99	\$5.49	\$5.55
Chicken/ whole or uncut	1 lb.	\$ 1.99	\$3.49	NA	\$4.02
Turkey/ Whole/Frozen	1 lb.	\$ 1.59	\$4.19	NA	\$4.09
Tuna/ canned	6 oz.	\$ 2.39	\$3.00	\$2.05	\$2.29
Chili w/beans/ canned	15 oz.	\$ 1.49	\$3.95	\$4.19	\$3.49
Eggs large	1 Dozen	\$ 2.59	\$5.19	\$6.99	\$4.89
Peanut Butter	18 oz.	\$ 3.76	\$5.99	\$5.79	\$5.95
Butter	1 lb.	\$ 5.19	\$6.25	\$7.55	\$5.75
Margarine	1 lb.	\$ 3.49	\$6.89	\$5.15	\$3.15
Shortening	3 lbs.	\$ 6.59	\$12.75	\$12.89	\$20.25
Vegetable oil	48 oz.	\$ 5.49	\$11.15	\$11.19	\$12.89
Mayonnaise	16 oz.	\$ 3.49	\$5.69	\$6.99	\$6.69
Sugar/granulated	5 lbs.	\$ 4.39	\$8.99	\$9.89	\$12.49
Sugar/brown	2 lbs.	\$ 2.29	\$6.45	\$6.39	\$5.79
Syrup/ pancake	24 oz.	\$ 4.89	\$8.65	\$7.25	\$12.45
Coke/ 7-up/ Pepsi	6-Pack	\$ 4.39	\$6.50	\$7.99/4.99	\$8.78
Drink mix/ Tang/	21.1 oz.	\$ 4.59	\$6.89	\$7.49	\$17.79
Gasoline/ unleaded	1 gallon	\$ 3.83 ⁹	\$5.75		\$5.50
Diesel	1 gallon	\$ 4.23 ⁹	\$6.50		\$6.35
Laundry detergent	50 (oz.)	\$ 5.69	\$21.99	\$20.65	\$20.00
Denim Jeans	1 pair men's	\$ 39.99	\$29.00	\$21.99	\$19.99
Boys briefs	3 pack	\$18.99	\$10.49	\$10.99	\$7.99