

BARROW SNAPSHOT

	2003	2010
Total Population	4,429	4,974
Sample Population	2,745	3,121
Population Growth Since 1990	27.7%	43.4%
Population Growth Since 1980	95.4%	119.4%
Population Growth Since 1970	105.8%	131.1%
Percent Female	48.7%	47.8%
Percent Iñupiat	61.3%	65.0%
Percent Caucasian	20.9%	16.0%
Percent Other	19.9%	19.0%
Number and Percent of Population Fluent Iñupiaq Speakers	543 (20.3%)	16 (9.8%)
Number and % of Population ≤ 16 (dependency ratio)	1,555(35.1%)	72 (38.9%)
Number and % of population 16-64 (Labor Force)	2,870 (64.8%)	111 (60.0%)
Number and % of population ≥ 65 (dependency indicator)	199 (4.5%)	6 (3.2%)
Median Age of Females	28	27
Median Age of Males	29	27
Median Age of Total Population	28	27
Size of Labor Force	1,935	1,790
Number of Individuals with permanent full-time employment	1,461	1,128
Number and percent of Labor Force unemployed	316 (16.2%)★	535 (25.7%)★
Number and Percent of Labor Force Underemployed*	886 (45.3%)	777 (43.4%)
Number and Percent of Labor Force Underemployed**	495 (25.3%)	253 (16.3%)
Total Number of dwelling units	N/A	1644
Number of Vacant Units and Vacancy Rate	N/A	137 (8.3%)
Total Number of Occupied Households	1,415	1507
Total Number of Households Surveyed	995	943
Average Number of People per Household	3.26	3.3
Percent of Households in Census	70.4%	62.6%
Percent of total Population in Sample	69.1%	62.7%
Percent of Iñupiat Households Using Subsistence Foods	92.7%	94.9%
Percent of Households Receiving Half or more of diet from Subsistence foods	69.0%	59.7%
Individuals working less than 10 months per year ** Individuals who perceive themselves to be underemployed ★In*Includes retired individuals in the total		

Demography:

Table 1 below indicates the sampling proportion for Barrow in 2003 and 2010. In 2010 nine hundred and forty three households were interviewed, about 63 percent of the 1,507 occupied households indicated to be in the community from enumeration of residential electrical hookup data and reliance on an audit by an independent consultant. This represents a little less than 4 percent decrease in sample size over the 980 households interviewed in 2003. The average household size has very slightly increased between 2003 and 2010 but when coupled with an increase of 84 households yields a net gain of approximately 279 individuals.

Table 1: Barrow Community Population Estimates 2003 to 2010.

Community	Barrow 2003	Barrow 2010
HH Sample Size (n)	980	943
#HH's Estimate (N)	1,415	1,507
Standard Error of Proportion {+/-}	+/- 1.77%	+/- 1.99%
Sample - Ave. Household Size	3.26	3.3
Low Pop. Estimate	4,573	4,787
Mid-Point Estimate	4,613	4,879
High Pop. Estimate	4,695	4,974

Population Trends and Characteristics

Chart 1: Population Estimates of Barrow 1939-2010

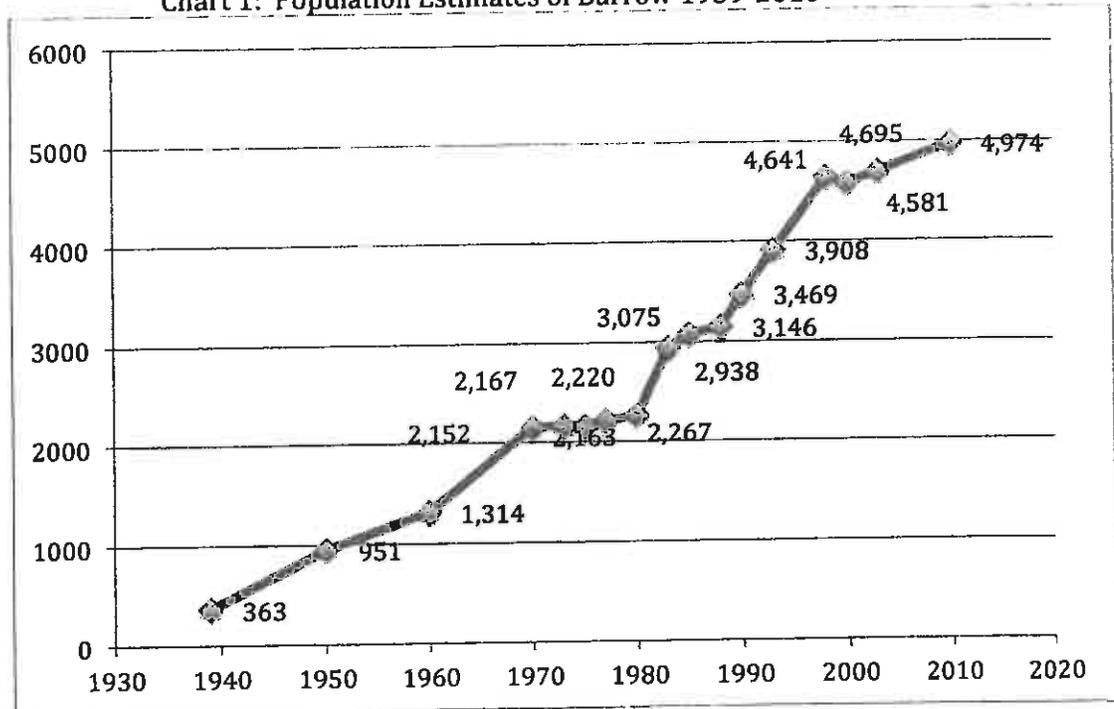


Table 2: Population Estimates of Barrow 1939-2010.

Year	Population
1939	363
1950	951
1960	1,314
1970	2,152
1973	2,167
1975	2,163
1977	2,220
1980	2,267
1983	2,938
1985	3,075
1988	3,146
1990	3,469
1993	3,908
1998	4,641
2000	4,581
2003	4,695
2010	4,974

The ethnicity of individuals in Barrow obtained from the 2010 NSB Census is contained in the two tables below. The first table, (Table 3) contains a complete breakdown by sixteen ethnicities plus an additional category "other" which contains any ethnicity not enumerated in the first sixteen. Two thirds of all individuals within Barrow are Iñupiat with an additional 16 percent of the population being Caucasian - these two ethnicities account for 81percent of all individuals.

Table 3: Barrow 2010 – Distribution of Individuals by Ethnicity.

Individual's Ethnicity				
	Frequency	Percent	Valid Percent	Cumulative Percent
Iñupiat	2028	65.0	65.1	65.1
Caucasian	493	15.8	15.8	80.9
Aleut	1	.0	.0	80.9
Athabaskan	8	.3	.3	81.2
Tlingit	4	.1	.1	81.3
Haida	4	.1	.1	81.5
Yup'ik	12	.4	.4	81.8
American Indian	16	.5	.5	82.3
Asian Indian	5	.2	.2	82.5
Filipino	236	7.6	7.6	90.1
Thai	12	.4	.4	90.5
Hawaiian	9	.3	.3	90.8
Korean	6	.2	.2	90.9
Pacific Islander	75	2.4	2.4	93.4
African American	33	1.1	1.1	94.4
Vietnamese	3	.1	.1	94.5
Other (specify)	171	5.5	5.5	100.0
Total	3116	99.8	100.0	
Total Non-Response	5	.2		
Total	3121	100.0		

The second table, below, represents an aggregation of all ethnicities into four groups, representing the three most populous ethnicities (Iñupiat, Caucasian and Filipino) with all other individuals/ethnicities grouped into an “other” category.

Table 4: Barrow 2010 – Ethnicity Recoded into Four Groups: Iñupiat, Caucasian, Filipino and Other.

	Frequency	Percent	Cumulative Percent
Iñupiat	2028	65.0	65.0
Caucasian	493	15.8	80.8
Filipino	236	7.6	88.3
Other	364	11.7	100.0
Total	3121	100.0	

There has been substantial change in the ethnic composition in Barrow between the NSB Census of 1998 and that of 2010. Barrow has moved from being about half Iñupiat to two-thirds Iñupiat at the latest Census. During this same period the proportion of Caucasians in the population has dropped by a third from 24 percent to 16 percent. The proportion of “other” ethnicities has remained constant after an initial slight decline.

Table 5: Barrow 2010 Ethnic Proportion of Population (Individuals) 1998-2010

Ethnicity in Percent	1998	2003	2010
Iñupiat	53%	59%	65%
Caucasian	24%	21%	16%
Other	23%	20%	19%

Table 6: Barrow 2010 – All Ethnicities – Individuals by Gender by 5 yr. Age Interval.

Age Recoded into 5 yr. Intervals	Individual's Gender			
	Male		Female	
	Count	Row N %	Count	Row N %
0-4	190	56.2%	148	43.8%
5-9	137	49.3%	141	50.7%
10-14	127	52.3%	116	47.7%
15-19	132	49.8%	133	50.2%
20-24	145	51.8%	135	48.2%
25-29	113	48.3%	121	51.7%
30-34	91	51.4%	86	48.6%
35-39	90	54.5%	75	45.5%
40-44	111	56.9%	84	43.1%
45-49	108	49.1%	112	50.9%
50-54	129	51.0%	124	49.0%
55-59	103	54.2%	87	45.8%
60-64	68	56.7%	52	43.3%
65-69	35	57.4%	26	42.6%
70-74	18	51.4%	17	48.6%
75-79	6	37.5%	10	62.5%
80+	22	48.9%	23	51.1%
Total	1625	52.2%	1490	47.8%

Chart 2: Barrow 2010 Population Pyramid (All Ethnicities) – By Gender and 5 yr. Age Cohort.

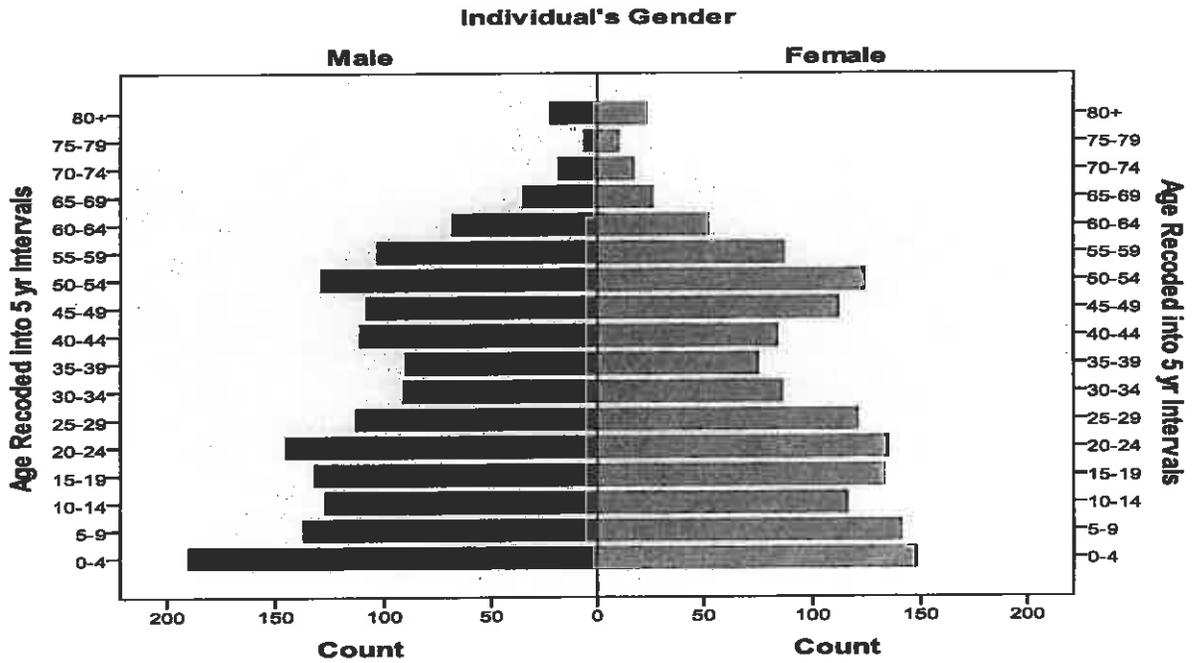


Chart 3: Barrow 2010 Iñupiat Population by Gender and 5-Year Age Intervals

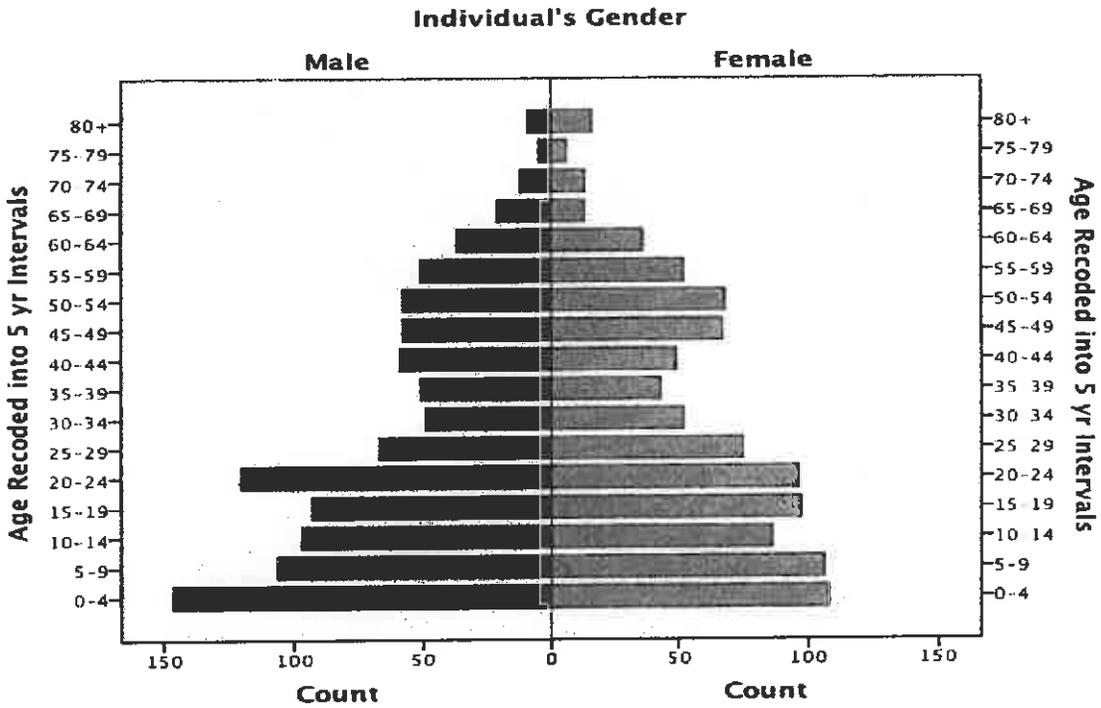


Table 7: Barrow 2010 – Iñupiat Only – Individuals by Gender and 5 yr. Age Cohort.

Age Recoded into 5 yr. Intervals	Individual's Gender			
	Male		Female	
	Count	Row N %	Count	Row N %
0-4	190	56.2%	148	43.8%
5-9	137	49.3%	141	50.7%
10-14	127	52.3%	116	47.7%
15-19	132	49.8%	133	50.2%
20-24	145	51.8%	135	48.2%
25-29	113	48.3%	121	51.7%
30-34	91	51.4%	86	48.6%
35-39	90	54.5%	75	45.5%
40-44	111	56.9%	84	43.1%
45-49	108	49.1%	112	50.9%
50-54	129	51.0%	124	49.0%
55-59	103	54.2%	87	45.8%
60-64	68	56.7%	52	43.3%
65-69	35	57.4%	26	42.6%
70-74	18	51.4%	17	48.6%
75-79	6	37.5%	10	62.5%
80+	22	48.9%	23	51.1%
Total	1625	52.2%	1490	47.8%

In 2003 the average household size for all households, all ethnicities was 3.26. The current average household size for all households in Barrow is now slightly larger at 3.3 individuals per household. In 2010 we find that Filipino households are slightly larger than Iñupiat households but both are significantly larger than Caucasian households.

Table 8: Barrow 2010 – NSB Census Sample - Average Household Size by Ethnicity.

Iñupiat Average Household Size	Caucasian – Ave. Household Size	Filipino - Average Household Size	All Ethnicities Household Size
3.59 people	2.41 people	3.66 people	3.3 people
n (households)= 555	n (households)=217	n (households)=61	n (households) =942

Three-fourths of all households in Barrow have four or fewer people residing in them. However, when we breakdown this distribution by ethnicity we find that a third of Iñupiat households have 5 or more members when compared to a quarter of Filipino households, while less than 10 percent of Caucasian households have five or more members.

Table 9: Barrow 2010 – Number of People in Household

Number of People in Household	Frequency	Valid Percent	Cumulative Percent
1	199	21.1	21.1
2	214	22.7	43.8
3	166	17.6	61.5
4	125	13.3	74.7
5	108	11.5	86.2
6	57	6.1	92.3
7	24	2.5	94.8
8	23	2.4	97.2
9	17	1.8	99.0
10	5	.5	99.6
11	3	.3	99.9
12	1	1	100.0
Total	942	100.0	

Table 10: Barrow 2010 – Household Size by Ethnicity.

Number of People in Household	Ethnicity Recoded for Barrow 4 Categories							
	Iñupiat		Caucasian		Filipino		Other	
	Count	N %	Count	N %	Count	N %	Count	N %
1	106	19.1%	64	29.5%	7	11.5%	22	20.2%
2	100	18.0%	80	36.9%	13	21.3%	21	19.3%
3	100	18.0%	32	14.7%	17	27.9%	17	15.6%
4	75	13.5%	24	11.1%	5	8.2%	21	19.3%
5	82	14.7%	7	3.2%	6	9.8%	13	11.9%
6	40	7.2%	4	1.8%	7	11.5%	6	5.5%
7	15	2.7%	2	.9%	4	6.6%	3	2.8%
8	16	2.9%	1	5%	0	.0%	6	5.5%
9+	22	4.0%	3	1.4%	2	3.3%	0	.0%
Total	556	100.0%	217	100.0%	61	100.0%	109	100.0%

Average Length of Residency:

One might expect that most Iñupiat household heads are lifetime residents of Barrow and in fact their average length of residency is slightly longer than the averages for Iñupiat household heads in Kaktovik and Anaktuvuk Pass. In contrast, about fifty percent of Caucasian household heads, drawn by employment and other factors, have lived here 4 years or less, although twenty-eight Caucasian households have lived in the community more than 20 years. The Filipino community has established long-term ties to the community of Barrow with more than half their population having lived there for more than sixteen years with twenty-one households, or more than a third, having lived in Barrow for more than twenty years.

Table 11: Barrow 2010 Average Length of Residency Household Head by Ethnicity.

Iñupiat Household Head Average Length of Residency	Caucasian Household Head – Average Length of Residency	Filipino Household Head – Average Length of Residency
37.16 years	8.38 years	15.23 years
n= 532	n=211	n = 61
50%> 37 years	50% < 4 years	50% > 16 years

Dependency Ratio's:

Table 12 below compares the proportion (percent) of the total Barrow population that fall into various age intervals (cohorts). These age intervals are selected to create a total dependency ratio, a child dependency ratio and an age dependency ratio.

Table 12: Barrow – Age Cohorts and Dependency Ratios 2003 and 2010.

	Barrow 2003	Barrow 2010
% 15 yrs. & under	30.5%	29.3%
% 18 yrs. & under	37.4%	34.2%
% 18-24 years of age	8.2%	11.3%
% 55-64 years of age	5.6%	8.3%
% 62 years and older	5.9%	5.6%
% 65 years and older.	5%	3.7%
%16-64 years of age	62%	64.6%
% 18-64 years of age	57.2%	61.4%
Youth Dependency Ratio	49.2	45.4
Age Dependency Ratio	8	5.7
Total Dependency Ratio	57.2	51.1

One thing to note in Table 12, above, is the substantial 11 percent drop in the total dependency ratio for Barrow between 2003 and 2010. Most of the change can be attributed to a slight decrease in the proportion of elders in the cohort 65 years of age and above. At the same time the proportion of individuals in the “productive cohort” 16 to 64 years of age has increased, in effect the numerator has decreased at the same time the denominator has increased, leading to a substantial drop in the overall dependency ratio, i.e., there are more

individuals in the labor force supporting fewer individuals in the “dependency” categories, but especially fewer “dependent” elders.

Employment:

The employment figures for Barrow are going to require some untangling. Our first assumption will be that all individuals who responded to the question “how many months were you employed during the last twelve months?” consider themselves to be in the workforce, even if they had zero months of employment. Our first calculation will include all individuals within the workforce, even those that had been employed zero months during the last year. If we leave these individuals within the denominator (n=1790 see Table 13, below) then the average months employed by those individuals in the workforce is equal to 8.12 months. However, if we take an average of only those individuals employed (and thus with at least some wage income during the reference year) then the average employment increases to 10.09 months.

The reader will notice some inconsistencies between the next two tables. Given the large number of households in Barrow, multiple interviewers were used to conduct the surveys. In addition, as individuals within the household were not interviewed and a great deal of information about household members was provided by the household head it is inevitable that errors would occur both in attributing household member’s status (e.g., employment) by the household head and in consistently coding variables by a multiplicity of interviewers. For example, Table 13, directly below has 1790 individuals responding to months employment from 0-12 months. In addition, there are an additional 1331 individuals who are not listed as being actively in the workforce. The household heads responding to the survey questions for these individuals either explicitly refused to answer or failed to provide information, which then became coded as missing. However, 95 percent of the individuals in the “Missing” category are individuals for whom the question is “not applicable,” such as infants, students or the retired. So about 58 percent of the individual respondents in the demographic file consider themselves to be in the workforce.

However, if we cross tabulate Household Member’s type of employment (full time, seasonal and so forth) with “number of months employed” (see Table 14, the table after the table directly below) we can observe some inconsistencies. First, the sample size drops from 1790 to 1703 a four percent increase in “missing information”. In addition, the number of individuals coded as “0 months employed” drops from 349 to 263 (a 25 percent decrease). Of the 263 individuals who consider themselves in the work force only about 90% consider themselves “unemployed”. Of the 23 individuals remaining in the “0 months employed” category 25 consider themselves retired while almost all the rest consider themselves temporary or part-time workers. Thus although we note some coding errors (e.g., one full time individual with 0 months of employment) the vast majority of the responses are consistent and reinforce the validity of both questions.

In Table 13 below, and consistent with other NSB 2010 community analyses, it can be seen that about 43 percent of those individuals who consider themselves in the workforce (i.e., including the 349 individuals with zero months of employment) have ten months or less of employment a clear indicator of underemployment. More detailed analysis-using indicators such as age, gender, employer and subsistence activities would be necessary to develop a complete picture of employment and unemployment in Barrow, which is beyond the scope of this report.

Table 13: Barrow 2010 – Individual Household Member's Months of Employment.

Employment - Individual HH member's months of employment?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	349	11.2	19.5	19.5
	1	37	1.2	2.1	21.6
	2	41	1.3	2.3	23.9
	3	53	1.7	3.0	26.8
	4	39	1.2	2.2	29.0
	5	34	1.1	1.9	30.9
	6	56	1.8	3.1	34.0
	7	30	1.0	1.7	35.7
	8	38	1.2	2.1	37.8
	9	57	1.8	3.2	41.0
	10	43	1.4	2.4	43.4
	11	17	.5	.9	44.4
	12	996	31.9	55.6	100.0
	Total	1790	57.4	100.0	
Missing	Refused	15	.5		
	Not Applicable	1259	40.3		
	Missing Information	56	1.8		
	System	1	.0		
	Total	1331	42.6		
Total		3121	100.0		

Table 14: Cross tabulation - Household Member's Type of Employment by Months of Employment.

Employment: HH Member's Months of Employment by Type of Employment						
HH member's months of employment?	Employment - Individual HH member's type of employment?					Total
	Permanent full time	Temporary seasonal	Part-time	Unemployed	Retired	
0	1	5	2	230	25	263
1	9	16	8	4	0	37
2	13	15	7	6	0	41
3	13	25	9	6	0	53
4	13	13	7	6	0	39
5	11	11	5	6	1	34
6	21	24	6	5	0	56
7	14	9	3	4	0	30
8	23	6	5	4	0	38
9	47	5	1	4	0	57
10	24	8	3	8	0	43
11	9	5	1	2	0	17
12	913	17	44	21	0	995
Total	1111	159	101	306	26	1703

A consideration of Table 15, below, clearly indicates differentials in employment between ethnic groups. Essentially four out of ten Iñupiat are employed full-time while every other ethnicity has roughly twice this proportion of full-time employment with Caucasians, Filipinos and "Other" ethnicities having eight out of ten individuals with full-time employment. In addition, nearly four out of ten Iñupiat in the labor force are unemployed, triple the rate of Filipinos and "Other" and six times the rate of Caucasians. In addition, and as one might expect, much higher proportions of Iñupiat retire in Barrow. Needless to say the statistical significance (chi-square) of the relationship between ethnicity and type of employment indicates that this relationship has less than a one in a thousand probability of being due to chance.

Table 15: Barrow 2010 – Cross-tabulation Ethnicity by Household Member’s Type of Employment.

Ethnicity Barrow Recode 4 Groups - Iñupiat, Caucasian, Filipino, Other by Employment - Individual HH member's type of employment?							
		Employment - Individual HH member's type of employment?					Total
		Permanent full-time	Temporary seasonal	Part-time	Unemployed	Retired	
Iñupiat	Count	476	127	71	458	127	1259
	Column Percent	37.8%	10.1%	5.6%	36.4%	10.1%	100.0%
Caucasian	Count	336	17	20	25	10	408
	Column Percent	82.4%	4.2%	4.9%	6.1%	2.5%	100.0%
Filipino	Count	141	9	7	25	6	188
	Column Percent	75.0%	4.8%	3.7%	13.3%	3.2%	100.0%
Other	Count	175	13	11	27	4	230
	Column Percent	76.1%	5.7%	4.8%	11.7%	1.7%	100.0%
Total	Count	1128	166	109	535	147	2085
	Total Percent	54.1%	8.0%	5.2%	25.7%	7.1%	100.0%

Table 16: Employment Characteristics of Barrow 1998 -2010.

Barrow	1998	2003	2010
Total Population	4,641	4,613	4,974
Persons 16-64	2,714	2,860	3,094
Persons in Labor Force	2,194*	2,377*	1,790*
Respondents Reporting Underemployment	12.3%	25.4%	16.3%
Respondents Reporting Working < 10 months*	629* (28.7%)	886* (37.3%)	777* (43.4%)
Ave. Months Employed	-	8.4^	10.09** (8.12) ^
Ave. Months Unemployed	-	3.6*	4.92*

*Sample Population **Average includes unemployed individuals in the denominator ^Persons with some employment.

Assessing changes over time in employment from the three most recent NSB Censuses (see Table 16 above) is more problematic for Barrow given its large size and varied composition and given slightly different enumeration methodologies between the Censuses. Given some uncertainty in the estimation of the denominator no percentages for labor force participation have been calculated. However, at least two trends can be abstracted. First, although self-reported underemployment seems to jump around the more

strictly defined measure – “proportion of labor force working ten months or less” has a clearly increasing trajectory, which is starting to reach half the labor force. The second trend indicates an increasing length of time (nearly five months in 2010) of wageworkers experiencing unemployment. These trends in conjunction with the fact, mentioned above, that only 40 percent of the Iñupiat labor force are employed full time indicates an increasingly difficult employment situation for Iñupiat in Barrow.

For all individuals in Barrow the last seven years provide a picture of some consistency in employment status with a modest increase in full-time employment and slight declines in seasonal and part-time employment. However, there has been a statistically significant leap, by nearly a third, in the proportion of unemployed in the population.

Table 17: Barrow Comparison of Employment Status (all Ethnicities) - 2003 to 2010 (in %).

Sample Individuals Reporting Labor Status.	Percent 2003	Percent 2010
Permanent Full Time	52%	54.1%
Seasonal Employment	10.7%	8.0%
Part-time Employment	5.6%	5.2%
Unemployed	16.4%	25.7%
Retired	7%	7.1%

With respect to Iñupiat employment we can see from Table 18 below, that Iñupiat women, by a ten percent margin, are more likely to have permanent full-time employment when compared to Iñupiat men, although a detailed analysis would need to be conducted to explain this difference with issues such as age, education, type of employment and income needing to be accounted for. Almost the entire ten percent difference, mentioned above, is accounted for in temporary seasonal employment where Iñupiat men are disproportionately seasonally employed. These contrasts in employment type also suggest that issues of seasonal construction and subsistence activities maybe also be a factor in these differences.

Table 18: Barrow 2010: Iñupiat Employment Status by Gender.

Employment - Individual HH member's type of employment?	Iñupiat Individual's Gender			
	Male		Female	
	Count	Column %	Count	Column %
Permanent full time	206	32.6%	268	42.9%
Temporary seasonal	93	14.7%	34	5.4%
Part-time	31	4.9%	40	6.4%
Unemployed	240	38.0%	217	34.7%
Retired	61	9.7%	66	10.6%

In Table 19 below, more than a third of Iñupiat male respondents mentioned the inability to find a job as a major reason for their unemployment, while less than a quarter of Iñupiat female respondents mentioned the same reason. Not unexpectedly, male Iñupiat

mentioned conflicts with subsistence activities as their second most important reason for their unemployment, while only a few female Iñupiat respondents cited this reason. Finally, by a 4:1 margin female Iñupiat (over male Iñupiat) cite caring for family members as the major reason for their unemployment.

Table 19: Barrow 2010 – Iñupiat Individuals – Reason for Unemployment by Gender.

Employment - Individual HH member's reason for unemployment?	Iñupiat Individual's Gender			
	Male		Female	
	Count	Column %	Count	Column %
Did not want job	21	6.3%	23	8.5%
Could not find job	120	36.1%	61	22.5%
Physical disability/poor health	44	13.3%	28	10.3%
Wage work conflict with subsistence	45	13.6%	6	2.2%
Family responsibilities (e.g. care of elder)	28	8.4%	93	34.3%
College or technical training	21	6.3%	17	6.3%
Other	52	16%	37	14%
Total	331	100.0%	266	100.0%

As Table 20 below indicates, there is a tremendous sense of balance in Iñupiat gender employment with nearly equal numbers of men and women employed by the Federal, State, City and Borough governments and by ASRC or the Village corporation. In contrast sharp differences are found in the NSB school district (predominated by Iñupiat women) and the oil industry (predominated by male Iñupiat). Caucasian employment is heavily focused in employment by the NSB government or school district with equal gender representation for the school district but with 25 percent more men being employed by the NSB government.

Table 20: Barrow 2010 – Employer by Gender and Ethnicity.

		Iñupiat	Caucasian	Filipino	Other
Federal government	Male	4	5	2	1
	Female	5	6	2	3
State government	Male	3	4	0	0
	Female	4	5	0	3
City government	Male	12	3	1	1
	Female	12	2	0	0
NSB government	Male	114	61	33	30
	Female	124	46	26	32
NSB School district	Male	17	52	16	17
	Female	39	51	11	17
NSB CIP	Male	4	2	0	1
	Female	2	0	0	0
Oil industry	Male	13	4	0	1
	Female	0	0	0	1
Private construction firm	Male	5	4	0	6
	Female	9	0	1	0
ASRC or subsidiary	Male	18	1	0	3
	Female	22	0	0	2
Village corp./subsidiary	Male	61	8	1	4
	Female	62	3	0	2
Finance/insurance	Male	0	0	0	0
	Female	0	0	2	1
Transportation	Male	10	2	4	10
	Female	4	2	2	0
Trade	Male	6	5	0	0
	Female	2	0	0	0
Service	Male	7	6	4	8
	Female	9	1	10	8
Ilisagvik College	Male	7	15	2	7
	Female	8	21	2	5
Other	Male	74	38	16	26
	Female	65	32	18	16
Total	Male	355	210	79	115
	Female	368	169	75	90

Income:

Analysis of income for individuals and households in Barrow is going to be much more complicated than analysis contained in previous surveys. These complications arise from two features of the 2010 data set. First, the 2010 questionnaire contains considerably more detail on income and makes comparison with the 2003 results more difficult. Secondly, the measure that was used in both surveys, “estimated” total household income suffers from considerable missing information. For a detailed discussion of these issues see the “income” heading in the NSB “overview” chapter placed earlier in this report.

The second factor confounding the results for 2010 for Barrow, mentioned above, was the high proportion of missing information for the variable “estimated total household income” in the research. In 2010 about 78 percent (736/943) of the households provided information to the question – “What was the total household income that you and all other members of your household received in 2009?” About 70 percent of this non-response was due to missing information. By missing information we mean that the coding boxes for this variable were empty – why they were empty is difficult to discern. It could be the case the respondent could not come up with an answer or it might be that after getting no response the interviewer didn’t push the question and it might be a case of a polite or tacit “refused to answer”.

In contrast to the 2010 results (22 percent of households missing information) we find that in 2003 about 29 percent (280/980) of the interviews contained missing information on the variable “estimated total household income”.

In 2003 and 2010 “estimated average household income” was calculated by dividing the sum of reported income by the number of households reporting income. This means that in 2010 the sum of all 738 households, who reported income, was \$67,588,769. The 736 households yielding an average “estimated” household income of \$91,832, which was obtained by dividing this sum of sixty-seven and a half million dollars by 736. Calculating per capita income is trickier. In 2010, as we noted above, 736 households out of 943 households estimated their total household income (\$67,588,769). So 78% of the households reported income (736/943). We then multiplied this proportion (78%) times all the individuals enumerated in the total sample of 943 households, which is 3,121 individuals. Seventy-eight percent of all household members enumerated in the sample yields 2,436 individuals, that is the approximate number of individuals living in those households that reported income. We then divided the aggregation of all household incomes (\$67, 588,769) by 2,436 individuals to yield an estimated per capita income of \$27,746. A similar procedure was followed in calculating 2003 Barrow average household and per capita incomes. Table 21 below seems to clearly indicate an overall decline in purchasing power for Barrow households between 2003 and 2010. However, a few statistical points need to be made. First, in 2003 only 71 percent of all households estimated their total household income. In 2010 78 percent of all households reported estimated total household income. The standard error of the mean for 2003 (in constant dollars) is slightly larger at \$2,376 than the same measure for 2010 (\$2,355). At the 95 percent confidence level (i.e. plus or minus two standard errors) the lower error bound for 2003 is \$91,911 [\$96,663 - \$4,752]. In short if we take into account measurement error (the whiskers on box plots) it is entirely possible that total (“estimated”) household income has remained the same or even increased slightly during the period 2003 to 2007. On the other hand it is fairly certain the per capita income, in constant dollars, has decreased by a minimum of 5 percent during this same period.

Table 21: Barrow - Comparison of Average Estimated (Sample) Household Income & Per Capita Income (weighted for non-response) 2003 vs. 2010.

Income	2003 in constant \$'s	2010 (n)	% Change
Average "Estimated" Household Income	\$96,663 (\$81,566)* {n=700/980}**	\$91,832 (736)	-5%
"Estimated" Per Capita Income	\$30,687 (\$25,894)* {n=2,205/3,106}**	\$27,746 (2,436)	-10%

*Numbers in parenthesis for these measures are in 2003 dollars. **Number in bracket represents valid n for households (row 1) and proportion of individuals used in denominator for per capita calculation (row 2).

In Table 22, below we compare "estimated" versus "calculated" average incomes for 2010. It is important to note that the sample of "estimated" income was 736 households with 22 percent of the total sample of 943 households not giving any estimate. In contrast the sample of "calculated" incomes was 100 percent of the sample. Given the 17 percent difference between the two averages we might surmise that household heads that "estimate" their income are higher earners than those who don't. This supposition is born out by the results in "Table 23: Barrow 2010 - Estimated Household and Per Capita Income by Ethnicity", which indicates Caucasian households are more likely to estimate their income than are Iñupiat households (87 percent to 75 percent). In addition, on average Caucasian households earn 38 percent more than Iñupiat families. Thus, a higher proportion of high earning households reporting their income skew the Barrow average "estimated total household income". In contrast, the "calculated" total household income is probably more representative of average earnings by incorporating a more valid proportion of low earning households.

Table 22: Barrow 2010 - Comparison of Calculated versus Estimated Household Income.

Income	Calculated (n)	Estimated (n)	% Difference
Average Household Income	\$76,395 (943)	\$91,832 (736)	+16.8%
Per Capita Income	\$23,082 (3,121)	\$27,746 (2,436)	+16.8%

When we disaggregate income by ethnicity two major findings become apparent. First, Caucasian households are more likely to estimate their income than are Iñupiat or Filipino households. More striking is the fact that Caucasian households, on average, earn about 38% more than their Iñupiat counterparts. Of course Caucasian households in Barrow are not representative of Caucasian households in Alaska or the rest of the U.S. As "Table 20: Barrow 2010 - Employer by Gender & Ethnicity", above, indicates Caucasians are disproportionately represented in the NSB government, the School District and Native Corporations. In essence skilled, highly educated (and highly paid) individuals are recruited to work and live in Barrow. It is unreasonable to assume that an isolated small group of less than 5,000 Iñupiat (or even any small town in the lower 48 of similar size) would contain all the expertise necessary to carry out the corporate and service responsibilities of the NSB.

Table 23: Barrow 2010 – Estimated Household and Per Capita Income by Ethnicity.

Ethnicity	Aggregation of all reported HH Incomes	Ave HH Income	Weighted Per Capita Income	"n" of HH's Reporting Income	Total HH Sample	% HH's Reporting Estimated Income
Iñupiat	\$31,138,871	\$75,215	\$20,339	414	556	75%
Caucasian	\$22,891,278	\$121,762	\$53,360	188	217	87%
Filipino	\$4,884,058	\$106,175	\$20,695	46	61	75%
"Other"	\$8,674,562	\$98,574	\$23,831	88	108	82%

Note that Table 23, above and Chart 4, below use "estimated" total household income as their measure of comparison. This was of course done to facilitate comparisons with the 2003 NSB Census, which contained only this measure. Further, more detailed analysis is necessary to provide analysis of "calculated" total household income and focus on potential differences to the contribution of this total (e.g., wage income versus other sources). Time and space constrain such a consideration in this report.

Chart 4 below indicates that although Iñupiat account for about two-thirds of the population (and 60 percent of the households), their households on average received slightly less than half the income "pie" in Barrow in 2010. Caucasian's with 16 percent of the population (but 23 percent of the households) comprise about one third of the income "pie".

Chart 4: Barrow 2010 – Proportion of the Sum of All "Estimated" Household Incomes by Ethnicity.

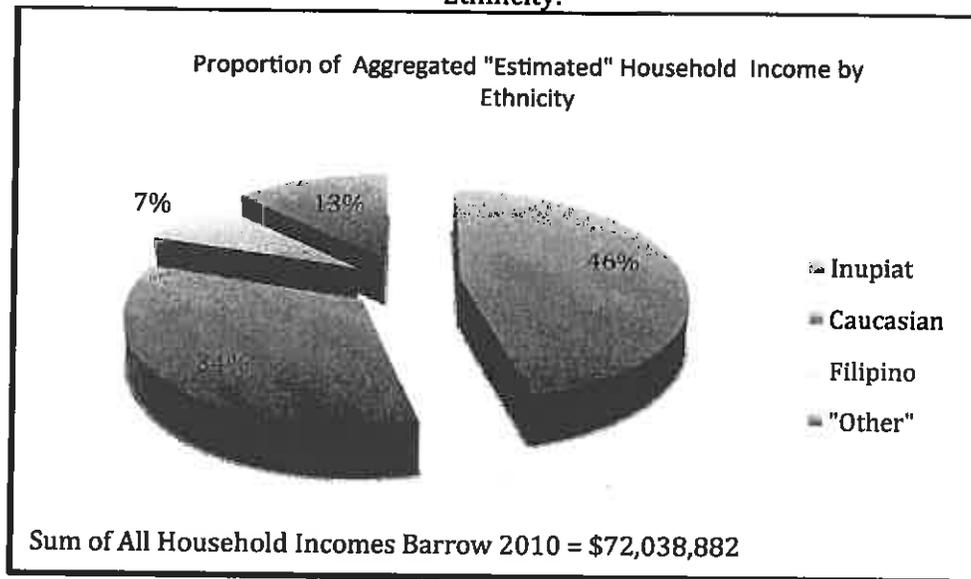


Chart 5 below compares income by ethnicity; note that while Iñupiat and Filipino per capita income are virtually the same, Filipino household income is about 30% larger. This is difficult to explain given both ethnicities have virtually the same household size.

Chart 5: Barrow 2010 – Comparison of Household and Per Capita Income by Ethnicity.

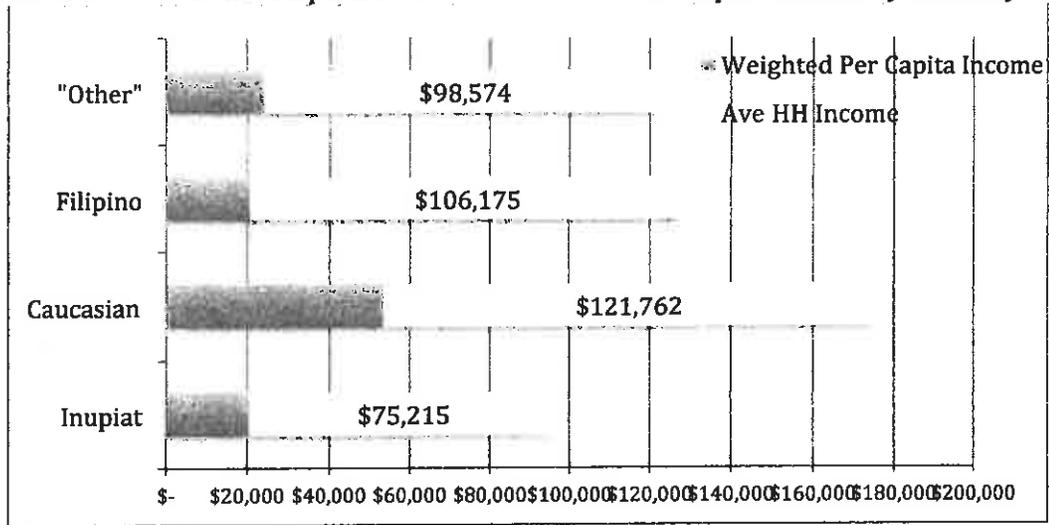
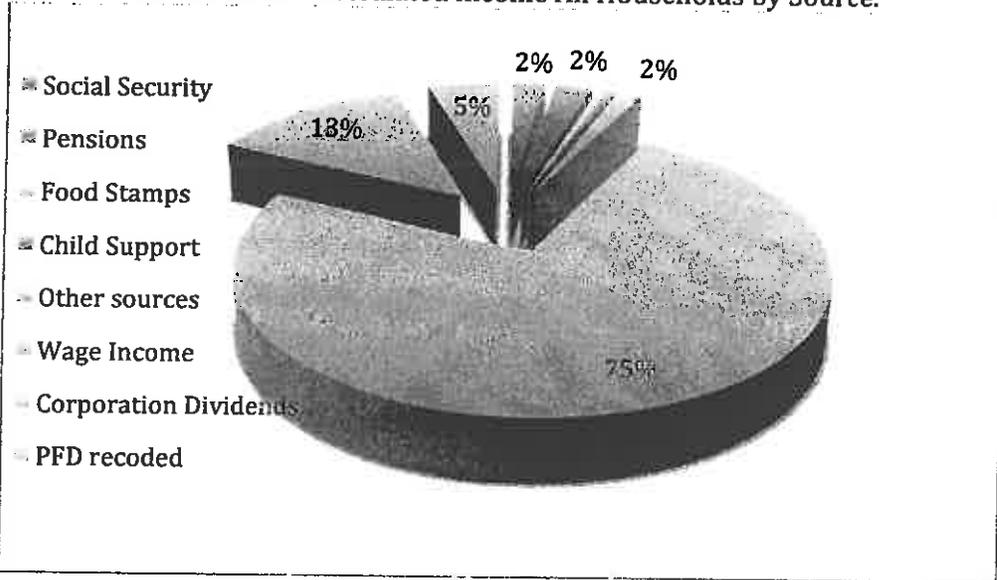


Table 24: Data Table for Chart 6 (below): Barrow 2010 – Proportional Contribution Total (Calculated) Household Income by Source:

Source of Income	Total \$ Amount	Percent
Social Security	\$1,555,791	2%
Pensions	\$1,822,576	3%
Food Stamps	\$457,513	1%
Child Support	\$240,909	0%
Other sources	\$1,108,640	2%
Wage Income	\$53,758,384	75%
Corporation Dividends	\$9,639,429	13%
PFD recoded	\$3,455,640	5%
Total HH Income - All Sources	\$72,038,882	100%

Chart 6: Barrow 2010 – Calculated Income All Households by Source.



As Table 25, below, clearly indicates there are significant differences in the distribution of estimated total household income. About 40 percent of Iñupiat households assessed their estimated household income at less than \$50,000. This proportion drops to about 7 percent for Caucasian households. In contrast slightly less than 20 percent of Filipino households estimate their total household income to be less than \$50,000.

Table 25: Barrow 2010 – Total “Estimated” Household Income by Ethnicity.

Recode Estimated Total Household Income into 12 Categories	Ethnicity Recoded for Barrow 4 Categories							
	Iñupiat		Caucasian		Filipino		Other	
	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
0-\$15,000	33	8.0%	1	.5%	2	4.3%	2	2.3%
15,001-29,999	55	13.3%	3	1.6%	2	4.3%	3	3.5%
30,000-39,999	47	11.4%	4	2.1%	3	6.5%	8	9.3%
40,000-49,999	33	8.0%	5	2.7%	2	4.3%	6	7.0%
50,000-59,999	25	6.0%	15	8.0%	2	4.3%	8	9.3%
60,000-69,999	29	7.0%	11	5.9%	2	4.3%	4	4.7%
70,000-79,999	36	8.7%	12	6.4%	3	6.5%	9	10.5%
80,000-89,999	25	6.0%	12	6.4%	3	6.5%	8	9.3%
90,000-99,999	13	3.1%	13	6.9%	2	4.3%	6	7.0%
100,000-124,999	49	11.8%	32	17.0%	13	28.3%	13	15.1%
125,000-149,999	26	6.3%	26	13.8%	4	8.7%	6	7.0%
150,000+	43	10.4%	54	28.7%	8	17.4%	13	15.1%
Total	414	100.0%	188	100.0%	46	100.0%	86	100.0%

When we switch our analysis to “calculated” total household income (see Table 26 below), we see, as previous analysis indicated, an influx of lower income households into the table. More than half (54.3 percent) of Iñupiat households, when their total household income is calculated from the major sources of income, have household incomes less than \$50,000. A slightly smaller proportion of Filipino households (45.9 percent) are in similar circumstances. In contrast, only about one fourth (26.2 percent) of Caucasian households have incomes less than \$50,000. Thus three out of four Caucasian households receive income of more than \$50,000 whereas, only about one in two Iñupiat households receive a similar level of income.

Table 26: Barrow 2010 – Total “Calculated” Household Income by Ethnicity.

Recode of Calculated Total Household Income into 12 Categories	Ethnicity Recoded for Barrow 4 Categories							
	Iñupiat		Caucasian		Filipino		Other	
	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
0-\$15,000	99	17.8%	38	17.5%	16	26.2%	18	16.5%
15,001-29,999	112	20.1%	9	4.1%	4	6.6%	9	8.3%
30,000-39,999	47	8.5%	4	1.8%	5	8.2%	6	5.5%
40,000-49,999	44	7.9%	6	2.8%	3	4.9%	5	4.6%
50,000-59,999	32	5.8%	16	7.4%	3	4.9%	4	3.7%
60,000-69,999	37	6.7%	7	3.2%	2	3.3%	8	7.3%
70,000-79,999	27	4.9%	12	5.5%	2	3.3%	11	10.1%
80,000-89,999	17	3.1%	11	5.1%	1	1.6%	7	6.4%
90,000-99,999	24	4.3%	14	6.5%	1	1.6%	8	7.3%
100,000-124,999	48	8.6%	28	12.9%	9	14.8%	14	12.8%
125,000-149,999	23	4.1%	22	10.1%	10	16.4%	8	7.3%
150,000+	46	8.3%	50	23.0%	5	8.2%	11	10.1%
Total	556	100.0%	217	100.0%	61	100.0%	109	100.0%

Poverty Thresholds:

The 2009 poverty thresholds are arranged in a matrix such that single person households must have less than \$13,530 in total household income to be considered below the poverty line. Additional household members raise this threshold, for example, the threshold for two person households is \$18,210. Obviously any multi-person household (e.g., two to nine persons) who had incomes below \$13,530 is also considered below the poverty line.

As Table 27 below indicates, in 2010 there were 227 Barrow households below the poverty threshold for a proportion of about 24 percent (227/943). Of these 227 households below the poverty threshold 143 of them were Iñupiat. So 62.9 percent (143/227) of all households below the poverty threshold were Iñupiat. Iñupiat households in the NSB 2010 survey sample were about 59 percent of the Barrow total, so Iñupiat households are slightly

over-represented in households below the poverty line. In general about one in four Iñupiat households (143/556=26 percent) are below the poverty threshold.

Table 27: Barrow 2010 Household Size by Poverty Income Threshold.

Recoded Calculated Total Household Income to Poverty Level	1	2	3	4	5	6	7	8	9+
	Count	Count	Count	Count	Count	Count	Count	Count	Count
\$0-13,530	47 (34)	44 (21)	22 (8)	17 (11)	14 (11)	11 (4)	4 (3)	2	3
\$13,351-18,210	15	9 (8)	4 (4)	1 (1)	3 (2)	1 (1)	0	0	1
\$18,211-22,890	15	10	14 (14)	3 (2)	7 (5)	1 (1)	0	0	0
\$22,891-27,570	11	6	4	9 (7)	2 (2)	1	0	0	2 (1)
\$27,571-32,250	11	7	3	10	2 (2)	0	0	0	0
\$32,251-36,930	8	12	4	3	5	0	3 (1)	0	0
\$36,931-41,610	12	2	7	0	3	3	0	0	0
\$41,611-46,290	6	5	3	4	3	8	0	0	0
\$46,291-50,970	3	5	8	4	2	0	2	0	0
\$50,971-55,650	9	6	2	1	0	2	1	4	0
\$55,651-60,330	6	3	7	4	3	1	0	0	2
\$60,331-65,010	8	8	7	2	3	1	1	2	3
\$65,011-highest	48	97	81	67	61	28	13	15	16
Total	47/199	53/214	40/166	30/125	28/108	14/57	7/24	2/23	6/27

Numbers in parentheses are Iñupiat households

Educational Attainment:

Table 28, below indicates a gradually increasing proportion of individuals obtaining their High School Diploma, with a slight increase in those obtaining a GED. Some college attendance remains steady at about 17 percent. The results also indicate a slight decrease in Vocational/Technical graduation. In contrast there has been a considerable increase in college-educated individuals in Barrow. Individuals with a college or graduate degree have increased from 3 percent in 2003 to 11 percent in 2010.

Table 28: Barrow Educational Attainment 1998-2010

	1998	2003	2010
Has Not Started School	7%	8%	10%
Still in Elementary School	17%	12%	13%
Still in Middle School	7%	7%	6%
Still in High School	8%	8%	7%
Did Not Finish High School	9%	9%	7%
GED	3%	3%	4%
High School Diploma	19%	20%	23%
Some College	17%	16%	17%
Vocational/Technical Graduate	3%	3%	2%
B.A. Degree	7%	0%	7%
Master's Degree	3%	1%	3%
Professional Degree/ P.H.D.	2%	2%	1%
Other		1%	1%
	100%	100%	100%
	n=3,045	n=2,827	n= 3,067

For Iñupiat individuals there has been a shift away from an unsettled job situation to permanent jobs, about a quarter of those with unsteady job prospects in 2003 have now found permanent employment. However, during this same period there has also been a substantial shift in attitudes toward education and training with double the proportion of Iñupiat individuals in Barrow as now seeing no connection between schooling (including vocational/technical) and obtaining a job. This finding should be investigated in more detail.

Table 29: Barrow 2003-2010 Training and Educational Background for Iñupiat Household Members.

BACKGROUND/INTEREST	2010 Number	2010 Percent	2003 Percent	2003 Number
1. Primarily a student	87	8.1%	23.6%	220
2. Job situation unsettled	327	30.3%	40.8%	381
3. Job is permanent	362	33.5%	22.9%	213
4. See no connection	303	28.1%	12.7%	118
Total	1079	100.0%	100%	932

There has been a considerable increase in the raw numbers of Iñupiat individuals receiving High School Diplomas between 2003 and 2010 (366 to 527). While these are sample responses we can be fairly confident that there has been more than a 4 percent increase in Iñupiat holding High School Diplomas. There has also been a slight drop in Vocational/Technical graduates (from 50 to 34). Accompanying a slight proportional increase in College attendance has been a slight drop of about a half a percent in Iñupiat individuals with B.A. or graduate degrees.

Table 30: Barrow 2010 – Educational Attainment by Ethnicity.

Individual's Highest Level of Education	Ethnicity Recoded into Four Categories							
	Iñupiat		Caucasian		Filipino		All others	
	Count	Column N %	Count	Column N %	Count	Column N %	Count	Column N %
Has not started school	233	11.7%	25	5.1%	11	4.9%	42	11.7%
Elementary school	303	15.2%	33	6.7%	13	5.8%	45	12.5%
Middle school	151	7.6%	10	2.0%	7	3.1%	20	5.6%
High school	154	7.7%	19	3.9%	14	6.3%	27	7.5%
Did not finish high school	186	9.3%	8	1.6%	2	.9%	16	4.5%
High school diploma	527	26.4%	56	11.5%	53	23.7%	75	20.9%
GED	90	4.5%	7	1.4%	4	1.8%	6	1.7%
Vocational/Technical graduate	34	1.7%	19	3.9%	2	.9%	10	2.8%
Some college	272	13.6%	113	23.1%	72	32.1%	60	16.7%
B.A. degree	26	1.3%	94	19.2%	43	19.2%	40	11.1%
M.A. degree	7	.4%	78	16.0%	3	1.3%	15	4.2%
Professional degree	7	.4%	15	3.1%	0	.0%	2	.6%
Other (specify)	5	.3%	12	2.5%	0	.0%	1	.3%
Total	1995	100.0%	489	100.0%	224	100.0%	359	100.0%

Table 31 below clearly verifies earlier generalizations as we note a gradual proportional increase in Iñupiat individuals in Barrow who have never enrolled in College, with slight proportional increases in those enrolling but not completing any courses. The results also clearly indicate a waning interest in College by Iñupiat individuals as fewer individuals complete courses for credit with a declining proportion who actually graduate with a degree.

Table 31: Barrow 2003-2010 Iñupiat Individuals' College Experience.

STATUS	2003 Number	2003 Percent	2010 Percent	2010 Number
Never enrolled	508	56.4%	61.5%	780
Enrolled, no courses completed	38	4.2%	4.6%	58
Currently enrolled for first time	17	1.8%	1.8%	23
Completed courses for credit	283	34.1%	26.6%	338
Graduated from college	55	6.1%	5.5%	70
Total	901	100%	100%	1269

Training:

Consistent with earlier findings on education, a higher proportion of Iñupiat individuals in Barrow now evince increasing pessimism about the value of education and training in helping them to achieve their career and employment goals (see Table 32). Despite this nearly 60 percent of those responding would leave Barrow to obtain additional training (see Table 33). Among those individuals who are willing to leave Barrow, increasingly since 1998, more and more individuals would prefer to be trained locally at Ilisagvik. The other side of this preference is a substantial decrease of interest in obtaining skills in Fairbanks, Anchorage or more distant and out of state institutions (see Table 34).

Table 32: Barrow 2003-2010 Iñupiat Individuals - Could training help individual achieve Employment/Career goals?

	2003 Count	2003 Percent	2010 Percent	2010 Count
Yes	613	75%	66%	769
No	208	25%	34%	399
Total	821	100%	100%	1168

Table 33: Barrow 2003-2010 Iñupiat Individuals - "Would You Leave Home for Additional Training?"

	2003 Count	2003 Percent	2010 Percent	2010 Count
Yes	402	59%	58%	466
No	276	41%	42%	339
Total	678	100%	100%	805

Table 34: Barrow 1998-2010 Iñupiat Individuals' Preferred Location for New Training.

LOCATION	1998 Percent*	2003 Count	2003 Percent	2010 Count	2010 Percent
Ilisagvik	53.7%	265	48.7%	349	58.0%
UAF	7.5%	60	11.0%	40	6.7%
UAA	12.0%	96	17.6%	59	9.8%
Vocational/technical school	3.0%	16	2.9%	43	7.1%
College outside Alaska	15.7%	55	10.1%	42	7.0%
Other	8%	52	9.6%	67	11.0%
Total	100%	544	100%	600	100%

*1998 results are for all ethnicities not just Iñupiat.

The 2010 results in Table 35, below, also seem to indicate a growing recognition among Iñupiat individuals that short term on-the-job programs provide less of a pay off than do long term on-the-job opportunities. In addition, there has been a substantial increased interest in two-year college programs with a slight increase of interest in four-year programs.

Table 35: Barrow 2003-2010 Iñupiat Individual's Preferred Length of Training

	2003 Count	2003 Percent	2010 Count	2010 Percent
Short term on-the-job	183	29.1%	137	21.8%
Long term on-the-job	199	31.7%	198	31.6%
Two year program	129	20.5%	158	25.0%
Four year degree program	116	18.5%	134	21.3%
Total	627	100%	627	100%

With respect to the occupations preferred for additional training, the responses have been fairly consistent since 1998. Some occupations like word processing, computer programming and carpentry have decreased in interest slightly since 2003. In contrast a few occupations, such as accounting, health worker, or wildlife manager have shown modest increased interest since 2003. In general most occupation have shown a consistency in the proportion of respondents with interest in those occupation.

Table 36: Barrow 1998-2010 – Iñupiat Individuals' Preferred Occupations for Additional Training.

Occupation	1998 Percent*	2003 Percent	2010 Percent	2010 Count
English	3.8%	1.0%	1%	4
Word processing	5.1%	8.0%	2.0%	12
Accounting	9.4%	6.0%	9.0%	54
Heavy equipment	7.5%	6.0%	5.0%	26
Public Administration (& paralegal)	5.3%	5.0%	5.0%	30
Food service	1.4%	2.0%	1.0%	7
Business management	6.8%	11.0%	12.0%	67
Land & Wildlife management	10.0%	1.0%	4.0%	25
Computer programmer	3.1%	8.0%	4.0%	25
Oil field worker	7.9%	2.0%	3.0%	16
Teacher	1.6%	5.0%	6.0%	37
Health worker	8.3%	6.0%	10.0%	55
Carpentry	1.7%	7.0%	5.0%	28
Welding	2.9%	1.0%	1.0%	7
Mechanic	1.5%	7.0%	9.0%	50
Electronics	4.0%	1.0%	1.0%	7
Other	20.0%	23.0%	22.0%	122
Total	100%	100%**	100%	572

*1998 results are for all ethnicities not just Iñupiat. **n=580

Housing:

Type of residence has remained markedly stable in Barrow between 2003 and 2010. With the exception of a doubling of the proportion of families living in mobile home/trailer residences and a slight decrease in "buildings with 3 or 4 families" the housing stock and the

occupation of those dwellings remains virtually unchanged and within sampling error when comparing the two points in time.

Table 37: Barrow 2003 – 2010 Households by Type of Living Structure

TYPE	2003 Count	2003 Percent	2010 Percent	2010 Count
Mobile home/trailer	28	2.9%	7%	66
One-family house	608	63.1%	61.2%	575
Building with two housing units	98	10.2%	11.5%	108
Building for 3 or 4 families	79	8.2%	4.7%	44
Building with 5 or more housing units	135	14%	13.3%	125
Other	16	1.7%	2.3%	22
Total	59	100%	100%	940

As indicated in Table 38 below, in the seven years since the last NSB survey in 2003 there have been some substantial changes in ownership/rental distributions for the community of Barrow. TNHA rentals have increased dramatically (5x) while NSB rentals have declined by nearly a third. Privately owned rentals have declined by a modest proportion while all other home ownership proportions have remained fairly constant.

Table 38: Barrow 2010 - Who Owns Respondent's Building?

	2003 Percent	2010 Count	2010 Percent	2010 Valid Percent
TNHA (rental)	2.4%	106	11.8%	11.8%
North Slope Borough (rental)	15.9%	94	10.4%	22.2%
UIC (rental)	1.9%	32	3.5%	25.7%
Privately owned rental	37.2%	281	31.2%	56.9%
TNHA (Mutual help home ownership)	4%	40	4.4%	61.3%
Owned by you (or someone in HH) with mortgage/loan	17.3%	150	16.6%	77.9%
Owned by you (or someone in HH) through LIPP	<1%	1	<1%	78%
Owned by you or someone in household free and clear	20.4%	197	21.8%	100%
Total Valid Responses	942	901	95.7%	
Not Applicable		4	1.5	
Missing Information		38	2.9	
Total Missing Responses		42	4.4	
Total		943	100.0	

Table 39: Barrow 2003 – 2010 Total Rooms in Dwelling (excluding bathrooms).

ROOMS	2003 Count	2003 Percent	2010 Percent	2010 Count
1	32	3.5%	3.9%	37
2	113	12.2%	8.6%	81
3	141	15.3%	14%	132
4	200	21.6%	19.8%	187
5	198	21.4%	26.4%	249
6	122	13.2%	15.2%	143
7	53	5.7%	7.6%	72
8	25	2.7%	2.5%	24
9	16	1.7%	.7%	7
10	11	1.2%	.4%	4
11+	4	<1%	.7%	7
Total	924	100%	100%	943

A consideration of Table 39, above, indicates a modest increase in the numbers of rooms in Barrow dwellings. While slightly less than half (47.4 percent) of Barrow homes had more than 4 rooms in 2003 this proportion increases to more than half (53.7 percent) in 2010.

Utilities – Heating and Water Systems:

Natural gas fuels around 95 percent of all the sample households in Barrow (Table 40). In 2010 Barrow saw the proportion of stand-alone stoves used for heating decrease by about half. Most of this shift is reflected in a five percent increase in baseboard/boiler systems (see Table 41 below).

Table 40: Barrow 2010 - "What is the main source of heat in this house?"

Sources of Heat	Frequency	Percent	Valid Percent	Cumulative Percent
Diesel oil	3	.3	.3	.3
Electricity	40	4.2	4.3	4.6
Natural gas	875	92.8	93.1	97.7
Kerosene	2	.2	.2	97.9
Combination of sources #1	6	.6	.6	98.5
Combination of sources #2	14	1.5	1.5	100.0
Total	940	99.7	100.0	
Missing Information	3	.3		
Total	943	100.0		

Table 41: Barrow Heating Systems 1998 – 2010

SYSTEM TYPE	1998 Percent	2003 Percent	2010 Percent	2010 Count
Stand-Alone Stove	23%	10.0%	5.4%	51
Stand-Alone Heater	-	15%	13.3%	125
Forced-Air Furnace	21%	19%	18.7%	176
Baseboard/ Boiler System	55%	56%	61%	573
Portable Heater/Other	1%	1%	1.5%	14
Total	100% (982)	100% (934)	100%	939

In 2010 nearly 95 percent of all households in Barrow had running water, which is about a two and a half percent increase since 2003 (Table 42). In addition, more than nine in ten households have flush toilets (Table 43). Of those households that have flush toilets slightly more than 90 percent are hooked into a sewer system (Table 44).

Table 42: Barrow 1998 – 2010 Does the Dwelling Have Running Water?

Running Water?	1998 Percent	2003 Percent	2010 Percent	2010 Count
Yes	92%	92%	94.4%	890
No	8%	8%	5.6%	53
Total	100% (997)	100% (962)	100%	943

Table 43: Barrow 2010 – “What type of toilet does the bathroom of this housing unit have?”

	Frequency	Valid Percent	Cumulative Percent
Flush toilet	877	93.5	93.5
Honey-bucket	58	6.2	99.7
Other (specify)	3	.3	100.0
Total	938	100.0	
Missing	5		
Total	943		

Table 44: Barrow 2010 – “If you have a flush toilet - what is it hooked to?”

	Frequency	Percent	Valid Percent	Cumulative Percent
Sewer line	807	85.6	91.7	91.7
Holding tank	71	7.5	8.1	99.8
Other (specify)	2	.2	.2	100.0
Sub-Total	880	93.3	100.0	
Don't Know	1	.1		
Not Applicable	61	6.5		
Missing Information	1	.1		
Sub-Total	63	6.7		
Total	943	100.0		

Converting 2003 utility costs into constant dollars reveals modest decreases in heating and electricity costs for Barrow Households since 2003. Interestingly, in constant dollars there has been a substantial decrease, by over a third, in household costs for water. Overall, utility costs seem to be about the same since 2003, however, when one calculates the purchasing power of 2003 dollars there has actually been a substantial drop (about 17 percent) in the cost of these services when one accounts for the impacts of inflation.

Table 45: Barrow 1998 - 2010 - Utility Costs.

Average Monthly Utility Costs	1998	2003	2003 Constant \$'s	2010	Percent Change
Heating	\$57	\$96	\$114	\$110	-3.5%
Electricity	\$54	\$96	\$114	\$103	-9.6%
Water	\$85	\$104	\$123	\$80	-35%
Total Average Utility Costs	\$196	\$296	\$351	\$293	-16.5%

During the last seven years the average mortgage payment has remained consistent in constant dollars while rental costs have actually decreased both in terms of absolute numbers and constant dollars.

Table 46: Barrow Rental and Mortgage Costs 1998 - 2010

CATEGORY	1998	2003	2003 Constant \$'s	2010	Percent Change
Average monthly mortgage payment	\$730	\$912	\$1081	\$1066	-1.4%
Average monthly rental payment	\$807	\$824	\$977	\$799	-18.2%

Nearly one third of the sample households in Barrow had not heard about the AHFC energy program. In addition, only about 4 percent of the households had received energy assistance or were waiting to be audited. Only four of the ten households receiving energy assistance reported their reimbursement, which averaged about \$1,675.

Table 47: Barrow 2010 "Did your household receive any AHFC Energy Assistance in 2009?"

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes we received	10	1.1	1.1	1.1
We applied waiting to be audited	24	2.5	2.7	3.9
Planning to apply to program	47	5.0	5.3	9.2
Haven't heard about the program	282	29.9	32.0	41.3
No plan to utilize program	515	54.6	58.5	99.8
		.2	.2	100.0
Sub-Total	878	93.3	100.0	
Not Applicable	58	6.2		
Missing Information	7	.5		
Sub-Total	65	6.7		
Total	943	100.0		

Only about 12 percent of the sample Barrow households in 2010 reported they were in the process of receiving weatherization benefits or were on the waiting list to be audited. We have no useful information about household expenditures or benefits from this program.

Table 48: Barrow 2010 "Did your household receive any Weatherization Benefits in 2009?"

Housing - Did your household receive any benefits from the Weatherization Program during 2009?	Frequency	Percent	Valid Percent	Cumulative Percent
Yes we received new ...	13	1.4	1.4	1.4
Public housing on waiting list.	7	.7	.8	2.2
Low income-awaiting energy audit.	16	1.7	1.8	4.0
Planning to apply to program.	73	7.7	8.0	12.0
Haven't heard of program.	241	25.6	26.5	38.5
Don't plan to utilize program.	558	59.2	61.5	100.0
Total Valid Responses.	908	96.3	100.0	
Refused to answer.	1	.1		
Not Applicable.	30	3.2		
Missing Information.	4	.4		
Total Missing Responses.	35	3.7		
Total	943	100.0		

Subsistence:

Although there are five households that contain missing information, clearly over eight out of ten households in Barrow utilize subsistence resources.

Table 49: Barrow 2010 - "Did your household use subsistence foods in 2009?"

	Frequency	Valid Percent	Cumulative Percent
Yes	769	82.0	82.0
No	169	18.0	100.0
Total	938	100.0	

It is important to remember the difference that ethnicity makes when considering general statistics about subsistence use in Barrow. For example, while virtually every Iñupiat household uses wildlife foods, substantial proportions of other ethnicities do not. Interestingly the 2003 proportion of Iñupiat using subsistence food was slightly lower at 92 percent than the present survey's proportion of 99 percent, a difference that may be attributed to the increase in unemployment or to the overall economic picture in Barrow.

Table 50: Barrow 2010 by Ethnicity – “Did your household use subsistence foods in 2009?”

Ethnicity Recoded for Barrow 4 Categories	Household - Subsistence - did your household use subsistence foods in 2009?			
	Yes		No	
	Count	Row N %	Count	Row N %
Iñupiat	546	98.7%	7	1.3%
Caucasian	127	59.1%	88	40.9%
Filipino	26	42.6%	35	57.4%
Other	70	64.2%	39	35.8%
Total	769	82.0%	169	18.0%

With respect to the amount of subsistence food used by a household we can see very clear contrasts by ethnicity (see Table 51 below). While nearly 60 percent of Iñupiat households receive half or more of their diet from subsistence foods only about one in ten non-Iñupiat households are similarly dependent.

Table 51: Barrow 2010 – Amount of Household Diet from Subsistence by Ethnicity.

Household - Subsistence - how much of your household diet came from subsistence foods in 2009?	Ethnicity Recoded for Barrow 4 Categories							
	Iñupiat		Caucasian		Filipino		Other	
	Count	Column %	Count	Column %	Count	Column %	Count	Column %
1. None	4	.7%	23	15.5%	11	33.3%	15	18.1%
2. Very little	66	12.0%	89	60.1%	14	42.4%	33	39.8%
3. Less than half	152	27.6%	24	16.2%	4	12.1%	19	22.9%
4. Half	142	25.8%	10	6.8%	4	12.1%	11	13.3%
5. More than half	99	18.0%	1	.7%	0	.0%	4	4.8%
6. Nearly all	73	13.2%	1	.7%	0	.0%	1	1.2%
7. All	15	2.7%	0	.0%	0	.0%	0	.0%
Total	551	100.0%	148	100.0%	33	100.0%	83	100.0%

Some changes have occurred in the dependence on subsistence resources between 2003 and 2010 for Barrow Iñupiat households. In general there seems to be a decrease in the intensive use of wildlife resources. Whereas nearly half (46 percent) of Iñupiat households in 2003 depended on wildlife resources for more than half of their diet, this proportion decreased to about one third (34 percent) in 2010. In contrast, a much higher proportion of Caucasian households in Barrow seem to be using at least small amounts of subsistence resources. Whereas in 2003 four out of ten Caucasian households did not use any subsistence foods, by 2010 this proportion had shrunk by half to one in six households.

Table 52: Barrow – Subsistence Use Amounts of Local Resources 1998 -2010 by Iñupiat and Caucasian Households

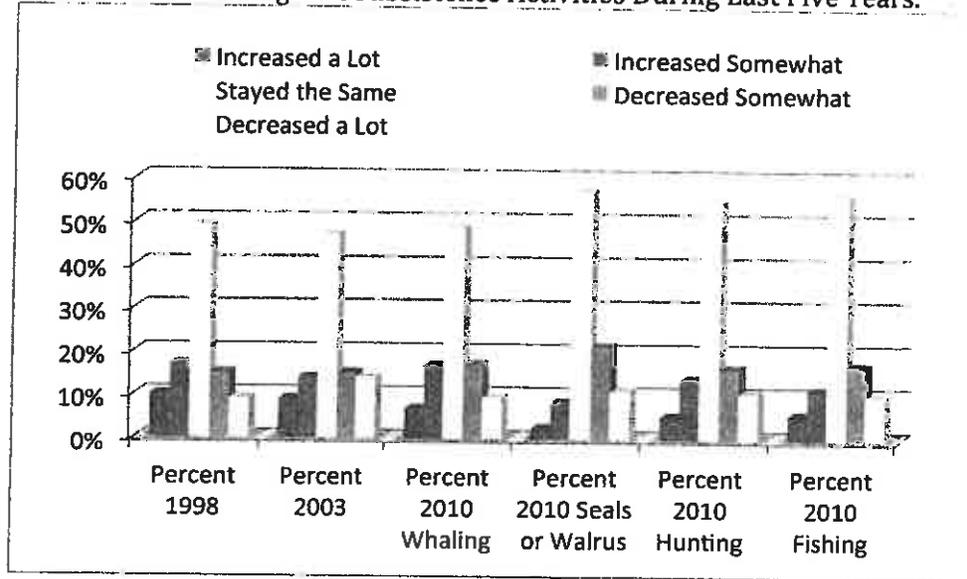
AMOUNT	2003 Percent Iñupiat	2010 Percent Iñupiat	2003 Percent Caucasian	2010 Percent Caucasian
None	5%	<1%	38%	16%
Very little	13%	12%	36%	60%
Less than half	16%	28%	11%	16%
Half	20%	26%	7%	7%
More than half	17%	18%	1%	<1%
Nearly all	14%	13%	1%	<1%
All	15%	3%	6%	0
Total	100%	100%	100%	100%

Table 53 below summarizes, for the past three NSB Censuses, respondent’s perceptions about the changes in subsistence activities during the last five years. As one can see from the table the modal response by half or more of the respondents is “stayed the same”. If one looks at the proportions in the last two attributes “Decreased Somewhat” and “Decreased a Lot” we can see a very slight increase in the number of households that are less involved in subsistence activities, from 24% in 1998 to 29% in 2003. In 2010 if we take an average of the two “decreased” attributes across five activities we note that about 28% see a decreasing involvement in subsistence activities – with the biggest decrease occurring in marine mammal hunting of seals or walrus. Perhaps some of this decreased can be attributed to climate change as ice edge mammals become increasingly difficult to access.

Table 53: Barrow 1998-2010 – Changes in Subsistence Activities During Last Five Years.

Changes in Use	Percent 1998	Percent 2003	Percent 2010 Whaling	Percent 2010 Seals or Walrus	Percent 2010 Hunting	Percent 2010 Fishing	Percent 2010 Gathering
Increased a Lot	10%	9%	7%	3%	5%	6%	3%
Increased Somewhat	17%	14%	17%	8%	14%	11%	7%
Stayed the Same	49%	47%	49%	57%	55%	56%	63%
Decreased Somewhat	15%	15%	17%	21%	16%	17%	17%
Decreased a Lot	9%	14%	9%	11%	11%	10%	11%
Total	100%	100%	100%	100%	100%	100%	100%
Sample Size (n=)	517	655	487	441	525	513	388

Chart 7: Barrow 1998-2010 – Changes in Subsistence Activities During Last Five Years.



The most striking finding of the 2010 research on subsistence issues in Barrow is the substantial increase in Barrow households who rely on other households to provide all of their subsistence needs (see Table 54 below). By 2010 more than half (52 percent) of the Barrow households interviewed received a majority of their subsistence resources from other households. This is a substantial increase in dependency considering only one in three Barrow households in 2003 had similar levels of dependency. This finding requires considerable additional fine-grained analysis. Such analysis would account for ethnicity, changes or increases in single parent families, age, income and the composition of individuals within the household who participated in subsistence activities.

Table 54: Barrow 1998-2010 - Percent of Subsistence Diet Received From Other Households.

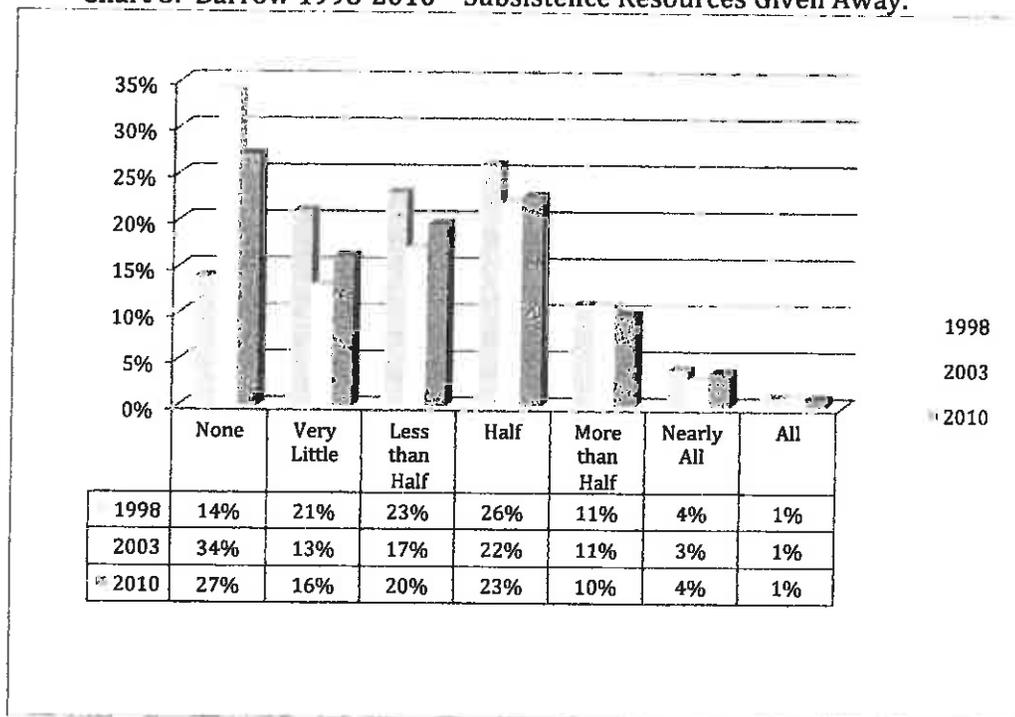
Receiving	1998	2003	2010
None	14%	23%	13%
Very Little	29%	27%	22%
Less than Half	22%	11%	14%
Half	14%	11%	11%
More than Half	6%	6%	5%
Nearly All	6%	6%	8%
All	8%	16%	28%
Total	100%	100%	100%
Sample Size (n=)	526	668	791

Surprisingly despite this increase in the number of households depending on others for obtaining their subsistence foods there has been no real decline in giving subsistence resources to other households. Since 1998 a fairly consistent proportion, about 40 percent, of all Barrow households have given half or more of their subsistence harvests to other households. This finding is certainly indicative of a continuing commitment to the traditional values of sharing subsistence resources.

Table 55: Barrow 1998-2010 - Percent of Subsistence Diet Given to Other Households.

Giving	1998	2003	2010
None	14%	34%	27%
Very Little	21%	13%	16%
Less than Half	23%	17%	20%
Half	26%	22%	23%
More than Half	11%	11%	10%
Nearly All	4%	3%	4%
All	1%	1%	1%
Total	100%	100%	100%
Sample Size (n=)	520	639	738

Chart 8: Barrow 1998-2010 – Subsistence Resources Given Away.



Participation and Recruitment for Subsistence Activities:

Clearly more males than females participate in Spring Whaling activities and this difference becomes especially prominent after about 20 years of age for both genders. Although male non-participants seem to substantially outnumber participants this is an artifact of the heavy loading of non-participants under 20 years of age that compose nearly 60 percent of all non-participants. In terms of recruitment there are 186 males between the ages of 20-40 who participate in Spring Whaling, in contrast there are 125 male individuals between the ages of 40-60 who participate in Spring Whaling. It seems there is substantial commitment to whaling in the younger age cohorts to easily replace their elders during the next 20 years.

Table 56: Barrow 2010 - Iñupiat Individuals Who Participate in Spring Whaling By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member participate in Spring Whaling?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	6	7	139	99
5-9	17	17	89	87
10-14	35	20	62	66
15-19	37	24	56	73
20-24	83	30	37	65
25-29	39	22	28	53
30-34	31	23	18	29
35-39	33	8	18	35
40-44	32	15	27	34
45-49	33	21	25	46
50-54	33	21	25	47
55-59	27	16	24	35
60-64	18	7	19	29
65-69	10	4	11	9
70-74	3	3	9	10
75-79	1	0	3	6
80+	0	2	7	14
Total	438	240	597	737

Slightly fewer individuals participate in Fall Whaling, however, it seems there are significantly more young male Iñupiat 20-40 years of age (169) engaged in Fall Whaling than individuals 40-60 years of age (112) who engage in the same activity. In general, the high numbers of young individuals engaged in whaling seem to bode well for the continuation of this key stone subsistence activity.

Table 57: Barrow 2010 - Iñupiat Individuals Who Participate in Fall Whaling By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member participate in Fall Whaling?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	6	8	139	98
5-9	16	14	90	90
10-14	31	22	66	64
15-19	31	25	62	72
20-24	73	23	47	72
25-29	38	21	29	54
30-34	26	21	22	31
35-39	32	9	18	34
40-44	27	13	32	36
45-49	28	19	30	48
50-54	30	22	28	46
55-59	27	13	24	38
60-64	17	5	20	31
65-69	8	4	13	9
70-74	3	2	9	11
75-79	1	0	3	6
80+	0	2	7	14
Total	394	223	639	754

As might be anticipated from cultural norms, there are nearly five times as many women who sew skins and clothes when compared with their male counterparts. There are 92 young Iñupiat women between the age of 10-34 years of age who sew skins and clothes. In contrast there are about 134 women between the ages of 35 to 59 who engage in the same activity. However, this seems more than enough in terms of recruitment to sustain the traditional activity, especially since this appears to be an activity that recruits substantial and active support during middle age. Sewing, with a 15 percent participation rate, is a much lower proportion than whaling where about 34 percent of Iñupiat individuals engage in this subsistence activity.

Table 58: Barrow 2010 - Iñupiat Individuals Who Sew Skins & Clothes
By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member sew skins and clothes?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	1	1	144	105
5-9	2	1	104	103
10-14	5	19	92	67
15-19	6	13	87	84
20-24	7	18	113	77
25-29	4	25	63	50
30-34	2	17	47	35
35-39	5	20	46	23
40-44	2	18	57	31
45-49	8	29	50	38
50-54	5	29	53	39
55-59	3	19	48	32
60-64	4	19	33	17
65-69	0	7	21	6
70-74	2	8	10	5
75-79	0	3	4	3
80+	0	5	7	11
Total	56	251	979	726

Like sewing the construction of sleds and boats is a more specialized subsistence activity. In contrast to sewing, however, this activity is predominantly engaged in by males. With 142 males between the ages of 15-39 engaged in this activity there seem more than enough people to meet the current recruitment of 122 males between the ages of 40-65 who currently engage in the activity.

Table 59: Barrow 2010 - Iñupiat Individuals Who Make Sleds & Boats By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member make sleds and boats?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	1	2	144	104
5-9	2	1	104	103
10-14	7	2	90	84
15-19	19	6	74	91
20-24	47	5	72	90
25-29	29	8	38	67
30-34	20	3	29	49
35-39	27	2	24	41
40-44	24	5	35	44
45-49	30	4	28	63
50-54	27	5	31	63
55-59	27	3	24	48
60-64	14	2	23	34
65-69	10	1	11	12
70-74	4	1	8	12
75-79	2	0	2	6
80+	0	0	7	16
Total	290	50	744	927

With nearly two-thirds (63 percent), Iñupiat at any age are engaged in sharing, cooking or processing of wild foods subsistence. These activities, as all personal testimony indicates, serve as a central and integral tenet of Iñupiaq culture. The overwhelming participation in cooking and sharing of subsistence resources across all age cohorts indicates the continuing strength of this activity in Iñupiat life.

Table 60: Barrow 2010 - Iñupiat Individuals Who Share, Cook & Process Wild Foods By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member share, cook and process wild foods?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	44	28	101	78
5-9	38	42	68	62
10-14	46	47	51	39
15-19	61	58	32	39
20-24	78	74	42	21
25-29	39	57	28	18
30-34	38	39	11	13
35-39	40	33	11	10
40-44	43	37	16	12
45-49	42	59	16	8
50-54	44	59	14	9
55-59	49	42	2	9
60-64	33	29	4	7
65-69	16	11	5	2
70-74	6	9	6	4
75-79	2	3	2	3
80+	3	8	4	8
Total	622	635	413	342

Slightly fewer Iñupiat individuals engage in land mammal hunting when compared to whaling. Once again hunting is predominantly a male oriented activity with males accounting for about three-fourths of all Iñupiat participation. As with many other of the subsistence activities, young males from 15-39 (240) outnumber (by about one-third) middle aged and older (40-64) males also engaged in hunting land mammals. There seems more than adequate recruitment for this activity during the next 20 years.

Table 61: Barrow 2010 - Iñupiat Individuals Who Hunt Land Mammals By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member hunt land mammals?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	9	4	136	102
5-9	18	13	88	91
10-14	33	17	64	69
15-19	44	15	48	82
20-24	77	16	43	79
25-29	47	15	20	60
30-34	35	12	13	40
35-39	37	8	14	35
40-44	38	10	21	39
45-49	34	22	24	44
50-54	37	12	21	56
55-59	32	10	19	41
60-64	23	10	14	26
65-69	13	2	8	11
70-74	3	1	9	12
75-79	1	0	3	6
80+	0	0	7	16
Total	481	167	552	809

The category of Marine mammal hunting includes the harvest of seals, walrus and Beluga whales but not Bowhead whales (although Bowheads are of course marine mammals). About 20 percent of Iñupiat (where males comprise more than 80 percent of marine mammal hunters) are active hunters. As with other activities there seems to be more than enough available recruitment for this activity during the next 20 years. About 200 male hunters are between the ages of 15-39 whereas 144 individuals between the ages of 40-65 currently hunt marine mammals.

Table 62: Barrow 2010 - Iñupiat Individuals Who Hunt Marine Mammals By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member hunt sea mammals?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	7	2	138	104
5-9	16	5	90	99
10-14	24	9	73	77
15-19	33	8	60	89
20-24	62	14	58	81
25-29	39	12	28	63
30-34	31	9	17	43
35-39	37	7	14	36
40-44	30	6	29	43
45-49	34	9	24	58
50-54	35	9	23	59
55-59	26	6	25	45
60-64	19	5	18	31
65-69	10	1	11	12
70-74	3	0	9	13
75-79	1	0	3	6
80+	0	0	7	16
Total	407	102	627	875

Less than 4 percent of Iñupiat trap furbearers, and of those who trap more than 80 percent are male. This low participation rate can be accounted for by a number of factors, low prices for furs (in most years expenses outnumber returns), the physical hardships and time commitment, and the substitution of western goods and technology for traditional material culture have all contributed to a low level of involvement in this subsistence activity. In fact many more young males under the age of 40 (43 individuals) considerably outnumber the 16 male individuals over the age of 40 who engage in this difficult subsistence activity.

Table 63: Barrow 2010 - Iñupiat Individuals Who Trap Furbearers By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member trap furbearers?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	0	1	145	105
5-9	0	1	106	103
10-14	5	0	92	86
15-19	4	2	89	95
20-24	16	1	104	94
25-29	8	2	59	73
30-34	6	3	43	49
35-39	4	2	47	41
40-44	5	1	54	48
45-49	2	1	56	66
50-54	3	0	55	68
55-59	3	0	48	51
60-64	0	0	37	36
65-69	2	0	19	13
70-74	1	0	11	13
75-79	0	0	4	6
80+	0	0	7	16
Total	59	14	976	963

Nearly 38 percent of all Iñupiat engage in fishing. Participation is by nearly everyone of any age or gender, although males outnumber females by about 3:2 proportion. Their grandparents show children how to engage in this activity and this interaction provides a key avenue of socialization of traditional Iñupiaq values. Clearly the age cohort distribution indicates there will be no problems of recruitment for this activity during the next 20 years.

Table 64: Barrow 2010 - Iñupiat Individuals Who Fish By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member fish?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	14	15	131	91
5-9	27	21	79	83
10-14	48	33	49	53
15-19	40	32	53	65
20-24	67	31	53	64
25-29	44	24	23	51
30-34	33	25	16	27
35-39	35	15	16	28
40-44	27	18	32	31
45-49	34	29	24	38
50-54	35	19	23	49
55-59	27	18	24	33
60-64	25	15	12	21
65-69	10	2	11	11
70-74	4	4	8	9
75-79	1	0	3	6
80+	0	0	7	16
Total	471	301	564	676

Slightly less than one in three Iñupiat individuals hunt birds in Barrow. Three quarters of the bird hunters are male. Of the 447 males that hunt birds about 60 percent are under the age of forty, thus recruitment for this subsistence activity seems assured.

Table 65: Barrow 2010 - Iñupiat Individuals Who Hunt Birds By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member hunt birds?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	7	4	138	102
5-9	13	15	93	89
10-14	40	13	57	73
15-19	45	14	47	83
20-24	73	15	47	80
25-29	43	17	24	58
30-34	33	13	16	39
35-39	32	7	19	36
40-44	35	6	24	43
45-49	31	12	27	55
50-54	29	13	29	55
55-59	31	12	20	39
60-64	21	12	16	24
65-69	11	1	10	12
70-74	3	0	9	13
75-79	0	0	4	6
80+	0	0	7	16
Total	447	154	587	823

Slightly less than 5 percent of Iñupiat individuals in Barrow gather bird eggs. It is unclear whether this is due to the distance to available rookeries and/or related to the danger and difficulty in accessing bird eggs, especially the eggs of cliff dwelling colonial nesters. About two thirds of the gathering of bird eggs is done by males. Nearly two-thirds (62 percent) of the males that gather eggs are between the ages of 15-40. Perhaps this is a

young man's activity. Nevertheless, there are more practitioners' of this subsistence activity in the pipeline than existing practitioners over the age of 40.

Table 66: Barrow 2010 - Iñupiat Individuals Who Gather Bird Eggs By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member gather bird eggs?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	2	0	143	106
5-9	4	4	102	100
10-14	15	4	82	82
15-19	2	3	91	94
20-24	10	3	110	92
25-29	7	3	60	72
30-34	3	4	46	48
35-39	5	2	46	41
40-44	6	2	53	47
45-49	3	3	55	64
50-54	2	0	56	68
55-59	6	1	45	50
60-64	1	1	36	35
65-69	1	0	20	13
70-74	1	1	11	12
75-79	0	0	4	6
80+	0	0	7	16
Total	68	31	967	946

One of the most surprising results of the subsistence section is just how few Iñupiat individuals gather berries and plants. Only about 17 percent of Iñupiat individuals in Barrow gather berries and plants, one would have suspected given the ease of harvest and the relative ease of transportation that this proportion would have been much higher - perhaps four times higher. Participation by gender is almost equal with slightly more females involved in this subsistence activity. Nearly 200 males and females under the age of 30 harvest berries and plants and this is contrasted with the 140 Inupiat individuals over the age of 30 who engage in this same subsistence activity. It certainly appears that recruitment of younger age cohorts to sustain this practice will most certainly occur.

Table 67: Barrow 2010 - Iñupiat Individuals Who Gather Berries & Plants By Age and Gender.

Age Recoded into 5-year Intervals	Subsistence participation - does individual HH member pick berries and plants?			
	Yes		No	
	Individual's Gender		Individual's Gender	
	Male	Female	Male	Female
	Count	Count	Count	Count
0-4	9	13	136	93
5-9	15	21	91	83
10-14	21	21	76	65
15-19	9	16	84	81
20-24	17	13	103	82
25-29	16	16	51	59
30-34	6	12	43	40
35-39	8	8	43	35
40-44	11	10	48	39
45-49	10	14	48	53
50-54	11	12	47	56
55-59	9	13	42	38
60-64	7	9	30	27
65-69	4	2	17	11
70-74	0	3	12	10
75-79	1	0	3	6
80+	0	0	7	16
Total	154	183	881	794

There are striking changes over time in Barrow as to where Iñupiat households say they share subsistence resources. The 1998 results seem very problematic so we will concentrate on changes in sharing patterns since 2003. Not surprisingly about nine out of ten households say they share subsistence resources with other households within Barrow. What is interesting is the dramatic increases in 2010 or sharing subsistence resources with households living outside Barrow. In general, sharing practices with households outside of Barrow have nearly doubled in the last seven years. A majority of Barrow households now say they share with other households within the NSB – this is in contrast to the one in three households that stated this behavior in 2003. In addition, there have been dramatic jumps of two-fold increases in sharing with NANA and Anchorage households. In addition, during this same period there has been a significant increase in sharing with Fairbanks households.

What the reasons are for these significant changes, e.g., increased income, increased travel meetings in other parts of the state and so forth, await further detailed analysis.

Table 68: 1998-2010 (Iñupiat Only) – Communities Where Households Say They Share Subsistence Food.

	1998 "Yes"	2003 "Yes"	2010 "Yes"
Barrow	34%	88%	94%
Other NSB Community	22%	30%	56%
Any NANA Community	9%	10%	24%
Anchorage	17%	24%	46%
Fairbanks	12%	16%	28%
Other	6%	13%	22%
Sample Size	634	NA	510

In general during the last five years, despite substantial increases in fuel costs, with gasoline hovering around \$9/gal, the number of trips for subsistence purposes and the distance traveled, has increased slightly for Iñupiat households in Barrow. About one fourth of Iñupiat households in Barrow have increased the frequency and length of their subsistence trips while about ten percent have decreased their activities. However, for about a fourth of the households there has also been a constriction of their use area, although the reasons for this constriction, for example, climate change impacts to ice conditions, can only be speculated upon.

Table 69: Barrow 2010 Subsistence Use (Iñupiat Only) - "During the last five years has number of trips and distance for subsistence activities changed?"

	Number of Trips	Distance Traveled
1. Decreased a lot	2%	1%
2. Decreased somewhat	8%	4%
3. Stayed the same	67%	68%
4. Increased somewhat	20%	20%
5. Increased a lot	4%	7%
Total	100% (415)	100% (417)

Table 70: Barrow 2010 - Subsistence – "Are there areas you used to hunt/fish 5 years ago that you do not use now?"

	2010 Count	2010 Percent
Yes	89	23%
No	301	77%
Total	390	100%

The average amount an Iñupiat household in Barrow spends on subsistence activities is \$3,761. However, as Table 71 below indicates this average cost is highly misleading (e.g., the standard deviation for the parameter is about \$10,000). Table 71, below indicates the skewed and bimodal nature of the distribution of these expenses. About half the Iñupiat households in Barrow that are engaged in subsistence activities spend less than a thousand dollars on these activities. In contrast, about 20 percent of Iñupiat Barrow households spend more than six thousand dollars a year; presumably some of these households are whaling captains that provide the monetary and labor resources to engage in this dangerous and expensive subsistence activity. Thus the reality is that most households spend modest amounts, whereas about one fifth of the households at the upper reaches of this distribution spend considerable amounts thus elevating the “average” amount spent. Further analysis will investigate the relationship between household income, household expenditures on subsistence activities, and the sharing and use of subsistence resources.

Table 71: Barrow 2010-“Best Estimate Your Household Spent on Subsistence Activities Last 12 Months.”

\$ Amount	Frequency	Valid Percent
0	107	23%
1-100	18	6%
101-499	42	7%
500-999	51	11%
1,000-1,499	29	6%
1,500-1,999	14	3%
2,000-4,000	78	17%
4,001-5,000	26	6%
5,001-6,000	10	2%
6,001-10,000	40	9%
10,001-24,000	25	5%
24,001-25,000	11	2%
25,001-175,000	13	3%
Total	464	100%

Barrow Health Profile (by Jana Mcaninch M.D.):

This profile provides a brief summary of the results of the 2010 NSB Census regarding the questions asked about health. The intent of this profile is to provide individual communities with information on some basic health measures at the village-level in order to guide community health promotion and planning efforts.

The largest community within the NSB and the regional center for governmental and commercial activity, Barrow has a more ethnically diverse population than the other NSB villages. Due to Barrow’s relatively larger population, the health measures described in this section were, in most cases, able to be analyzed by gender, age group, and ethnic group- the two largest groups, Inupiat and Caucasian, and a third group comprised of all other

ethnicities represented in the NSB. Notable findings and differences between these groups are discussed in the text and presented in graphs and tables for each topic.

Please refer to the 2010 Census NSB Health Profile section for further discussion of each health question and an overview of the census health module results for the NSB. The NSB Health Profile also examines health differences between Barrow and the other North Slope communities as a whole. Please refer to the *NSB Community Health Analysis* report for expanded discussions of each of the health topics addressed below as well as many more aspects of community health.

NSB and Alaska estimates are provided for general reference only, and comparisons should be made with caution, as results are not adjusted for differences in the age composition of the populations. State and national survey methods may also vary considerably from that used in the 2010 NSB Census.

General Health:

Table 1

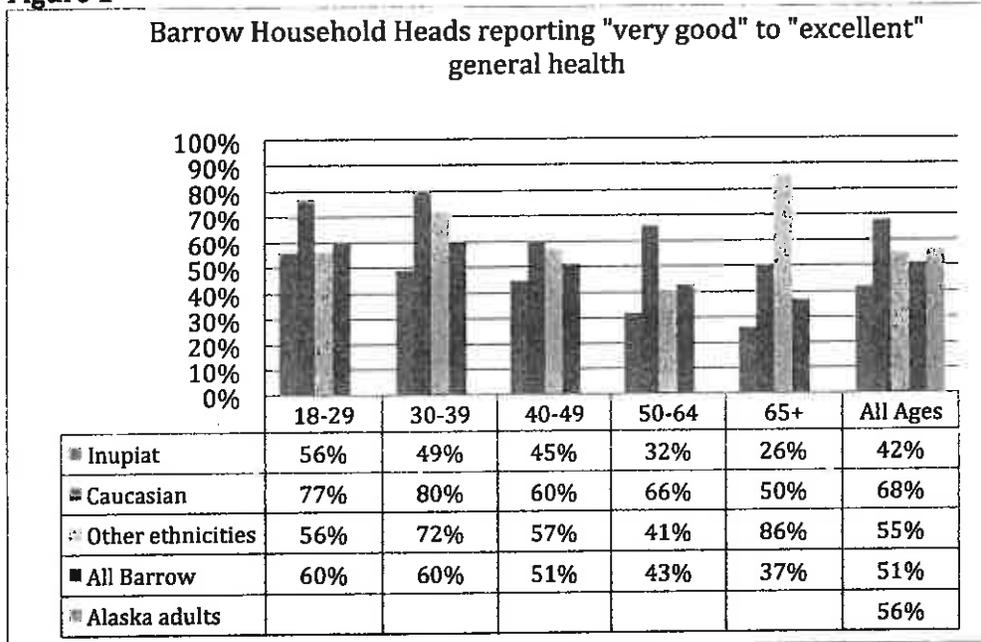
Reported General Health Status among Adults					
	Barrow Household Heads	NSB Household Heads	All Barrow adults*	All NSB adults*	Alaska adults
"Very good" or "excellent" general health	50%	44%	53%	46%	56% ¹
"Fair" to "Poor" general health	17%	20%	13%	16%	13% ²

A large majority of Barrow adults reported or were reported to have at least "good" general health. Slightly more than half of Barrow adults (51 percent of household heads and 53 percent of all adult household members) had "very good" to "excellent," reported general health, and 17 percent of household heads (13 percent of all adults) had "fair" or "poor" reported general health. These estimates are fairly similar to current estimates of overall health among adults in national surveys such as the annual BRFSS telephone survey.

Self-reported general health varied significantly by ethnicity. Except in the 65+ age group, Caucasian household heads were most likely to report "very good" to "excellent" health and were the only group to report better general health than their statewide counterparts. A high percentage of residents aged 65+ of "other ethnicities" reported "very good" to "excellent" health, although this group represented a very small group.

As noted in the NSB Health Profile, reported general health status of adults living in Barrow was significantly better than in the other villages, as a whole. This was true when comparing all ethnic groups combined and when comparing Inupiat adults only.

Figure 1

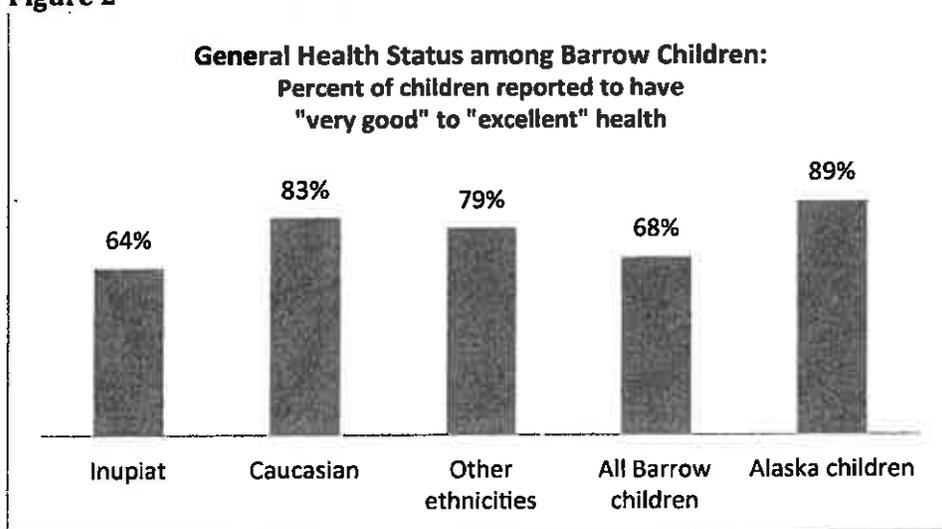


Alaska Data source: 2008 Alaska BRFSS

Children (under age 18) in Barrow were considerably less likely than their statewide counterparts to be reported by the household head as having "very good" to "excellent" health, as reported by the household head. Reported general health among Inupiat children was significantly lower than among Caucasian children or children of other ethnic groups. The largest discrepancy was found in the 10-17 age group, where 66 percent of Inupiat children, 94 percent of Caucasian children, and 78 percent of children of other ethnic groups were reported to have "very good" to "excellent" health.

As noted in the NSB Health Profile, the reported general health status of children in Barrow was significantly better than of children living in other North Slope communities, as a whole.

Figure 2



Chronic Health Conditions:

Household heads were asked whether they or the other members of their households have experienced any of a number of common chronic health problems.

Table 2

Chronic Health Conditions among Adults						
Chronic Health Problems	Ever told by a health professional have:	Barrow Household Heads	NSB Household Heads	All Barrow adults*	All NSB adults*	Alaska adults
	Thyroid problems	6%	6%	4%	4%	9%(US) ³
	Diabetes	8%	7%	7%	6%	6% ¹
	High Blood Pressure	27%	28%	21%	20%	25% ⁴
	High cholesterol	19%	19%	14%	13%	38% ⁴
	Heart disease	7%	7%	4%	5%	12% (US) ¹¹
	In the past 12 months, experienced:					
	Daily pain or arthritis that limits activities or requires prescription pain medicine	28%	29%	22%	21%	(ref) ⁵
	Frequent (3 or more) or chronic ear infections	5%	5%	4%	4%	
	Chronic breathing problems (such as asthma, emphysema, or a cough that won't go away)	12%	13%	7%	8%	(ref) ⁶

Household Heads:

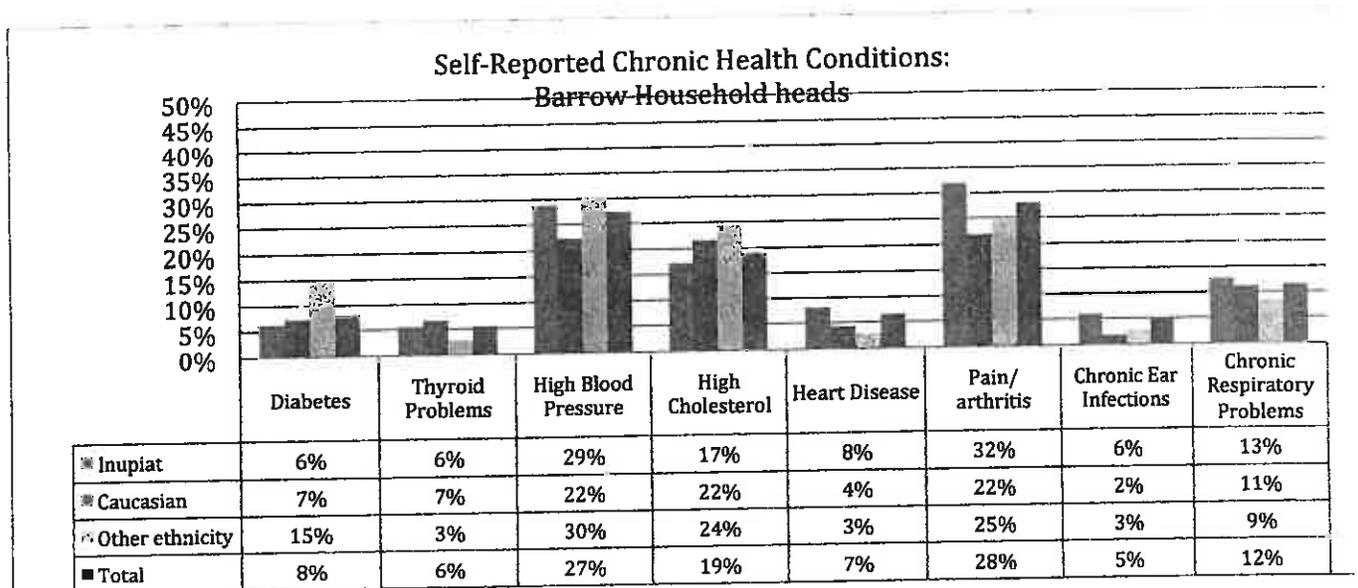
Among household heads, the most common chronic health problems reported were pain/arthritis, high blood pressure, high cholesterol, and chronic respiratory problems. Overall, the reported prevalence of chronic health problems among Barrow household heads was similar to statewide estimates, with the exception of high cholesterol, which was reported at only about half the statewide rate.

Age: All of the chronic health problems (except chronic ear infections) varied significantly by age, with increasing prevalence in older age groups.

Ethnic group: Iñupiat and Caucasian household heads were significantly less likely to report a diagnosis of diabetes than were those belonging to other ethnic groups ($p < 0.05$). The estimated prevalence of diabetes in ethnic groups other than Inupiat and Caucasian was more than twice the statewide estimate for adults. Inupiat were significantly more likely to report a diagnosis of heart disease, chronic ear infections, and chronic pain/arthritis than were the other groups ($p < 0.05$). The prevalence of thyroid problems, chronic respiratory problems did not vary significantly by ethnicity, although Iñupiat Barrow residents aged 65+ were roughly twice as likely to report chronic respiratory problems as were those of other ethnic groups.

Gender: Males were significantly more likely to report diabetes and heart disease than were females, and females were significantly more likely to report thyroid problems, arthritis/chronic pain, and chronic ear infections than were males.

Figure 3



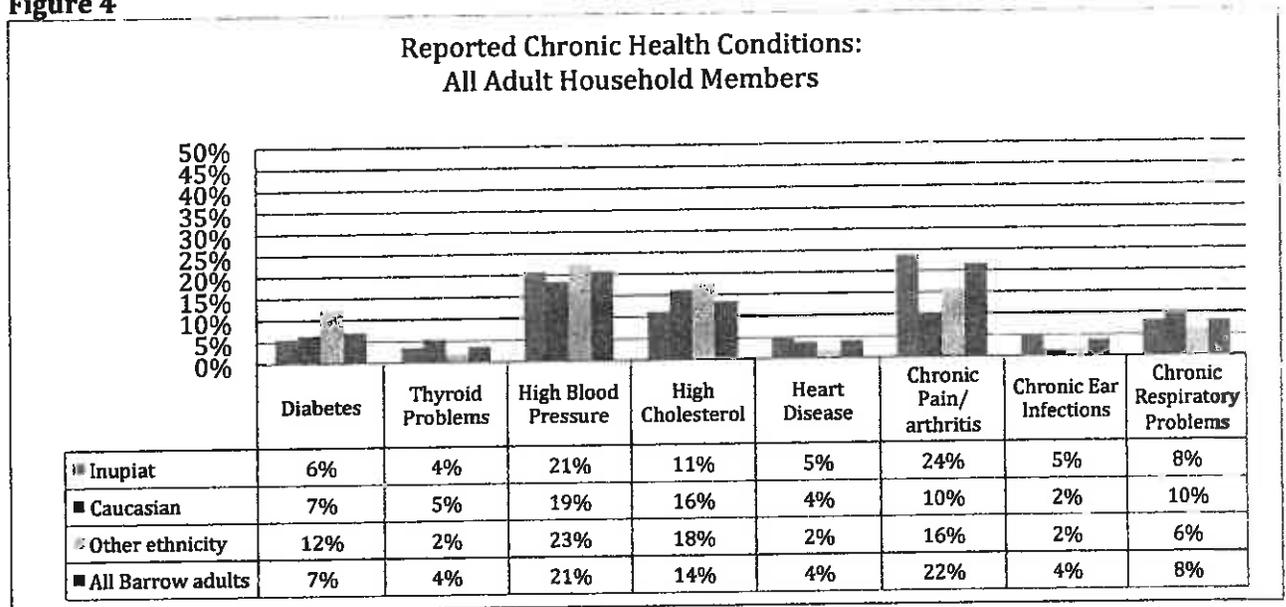
All adult household members: Household heads were also asked about chronic health problems among household members. Estimates obtained through proxy information tended to be slightly lower for all adults in the household than for household heads themselves, likely reflecting the slightly younger age distribution of this group. These

lower estimates may also reflect a lack of full knowledge among the household heads of the health problems of other household members. Overall patterns of disease prevalence were quite similar between the groups, however.

Adult Iñupiat household members were more than twice as likely as their Caucasian counterparts to experience arthritis/chronic pain and significantly more likely to have chronic ear infections. Caucasian household members were more likely than Iñupiat to have been told they have high cholesterol. Adult household members of ethnicities other than Iñupiat or Caucasian were significantly more likely than Iñupiat to report a diagnosis of diabetes or high cholesterol. They were less likely than Iñupiat to report thyroid problems, heart disease, chronic ear infections, or arthritis/chronic pain, however. There was not a significant relationship between reported respiratory problems and ethnicity among Barrow adults.

As noted in the NSB Health Profile, the estimated prevalence of adult diabetes was higher in Barrow than in the other North Slope villages as a whole. This was true when comparing all ethnic groups combined and when comparing Inupiat adults only.

Figure 4



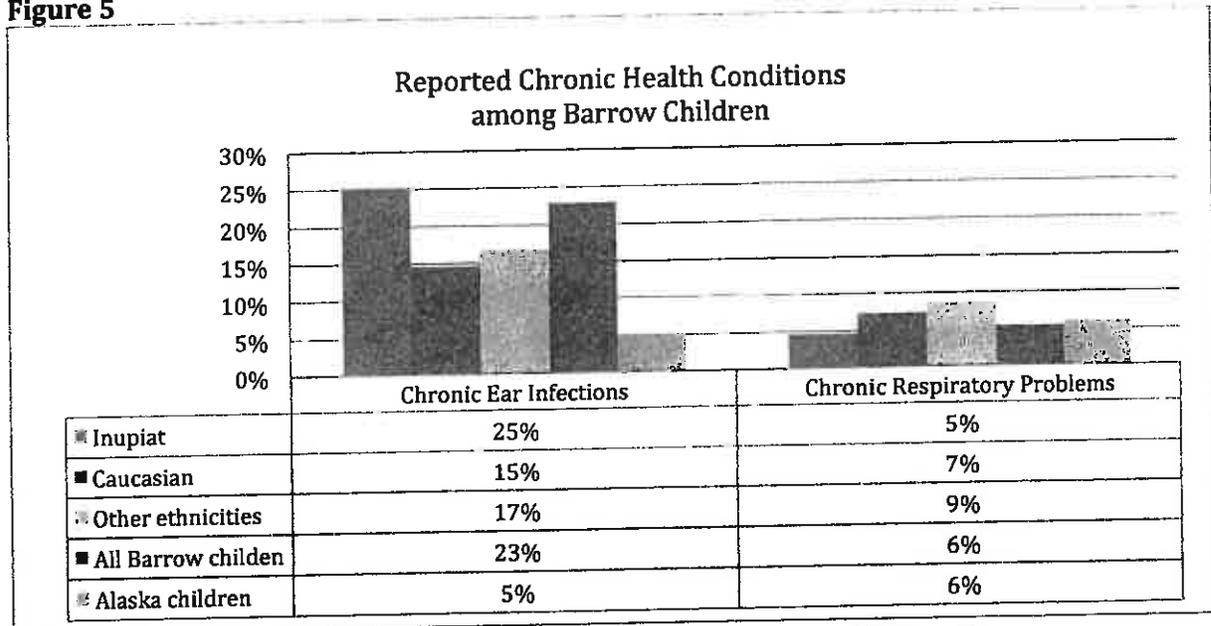
Chronic Health Problems in Children:

Fewer than 1 percent of household members under age 18 were reported to have any of the chronic health problems above, except ear infections and respiratory problems. The 2010 census did not include a number of common chronic health conditions in children, such as dental decay and attention/developmental problems.

Significantly more Iñupiat children were reported to have frequent or chronic ear infections than were Caucasian children or those of other ethnic groups ($p < 0.05$). There was not a significant relationship between reported respiratory problems and ethnicity among Barrow children. Overall prevalence of reported breathing problems among Barrow children (6 percent) was fairly similar to statewide estimates of current asthma among

children statewide (5⁶-6¹¹). The prevalence of frequent or chronic ear infections among children is the highest in Barrow among the North Slope communities and is more than 4 times the statewide estimate.

Figure 5



Alaska estimate for child respiratory problems is for asthma diagnosis only, as reported by a parent
 Alaska data sources: Asthma: National Survey of Children's Health 2007 and 2004 Alaska BRFS
 Chronic ear infections: National Survey of Children's Health 2007

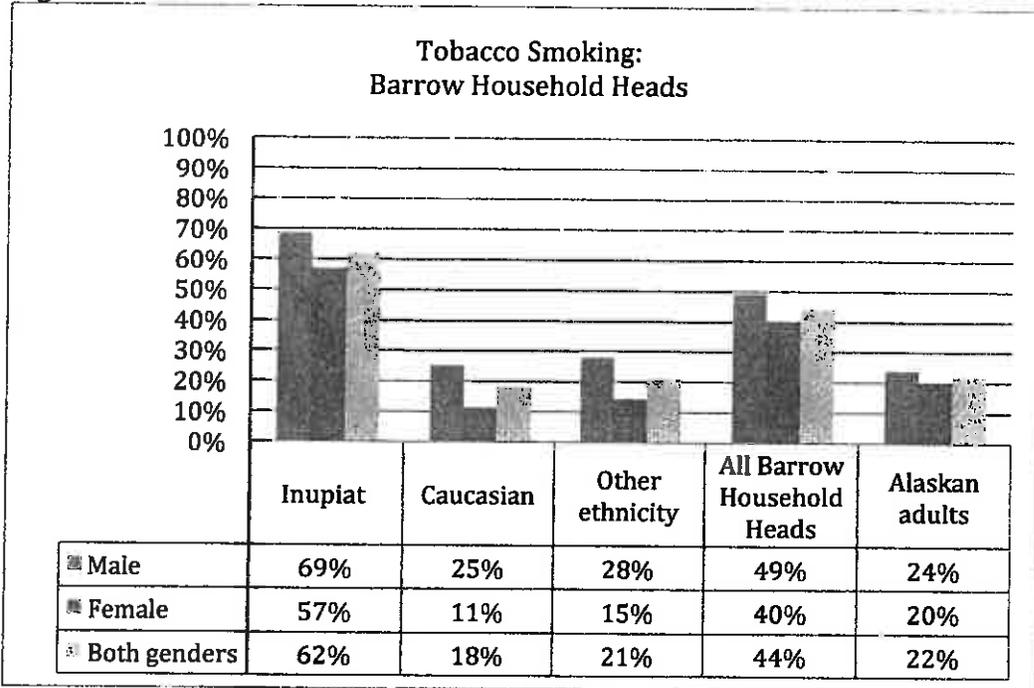
Tobacco Smoking:

Smoking among Household heads:

Overall tobacco smoking rates among Barrow household heads were roughly twice statewide rates. Smoking rates among Inupiat household heads were roughly 3 times statewide smoking rates.

Among Barrow household heads, reported tobacco smoking was significantly more common among Inupiat than among either Caucasians or other ethnicities. In all ethnic groups, male household heads were significantly more likely to smoke tobacco than females. Reported tobacco smoking did not vary significantly by age group, although reported smoking was lowest in the 65+ age group.

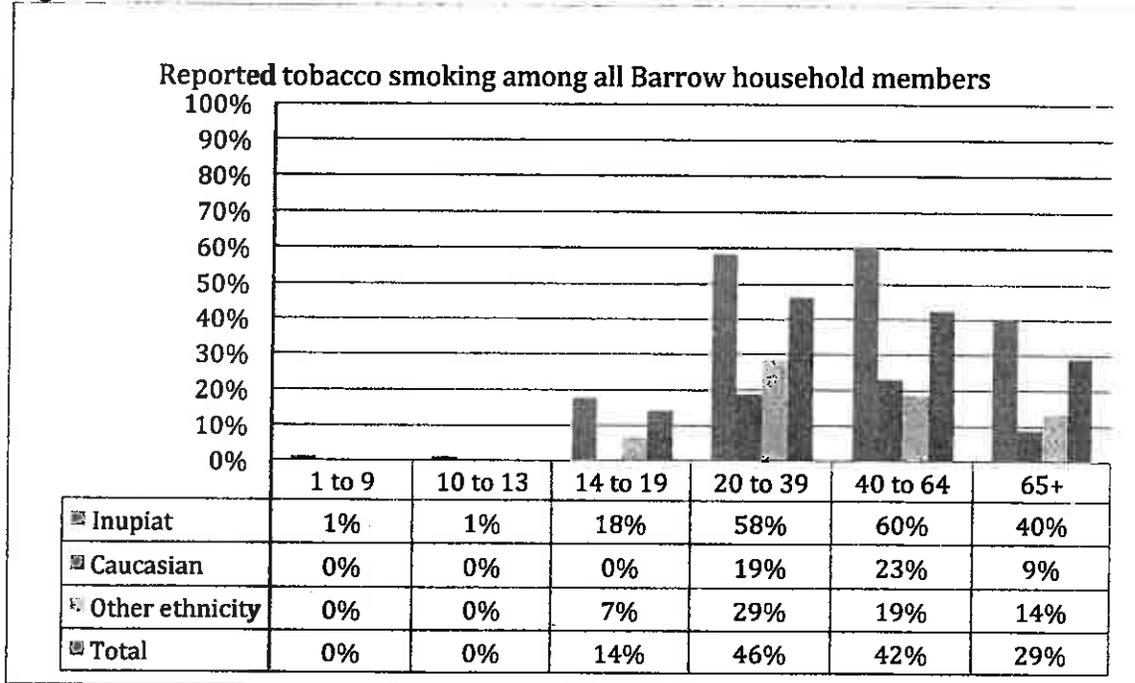
Figure 6



Alaska data source: 2008 Alaska BRFSS

Tobacco smoking among all Barrow household members: When household heads were asked about tobacco smoking in other household members, estimates for all adults were slightly lower but showed a similar pattern as far as ethnic and gender differences.

Figure 7

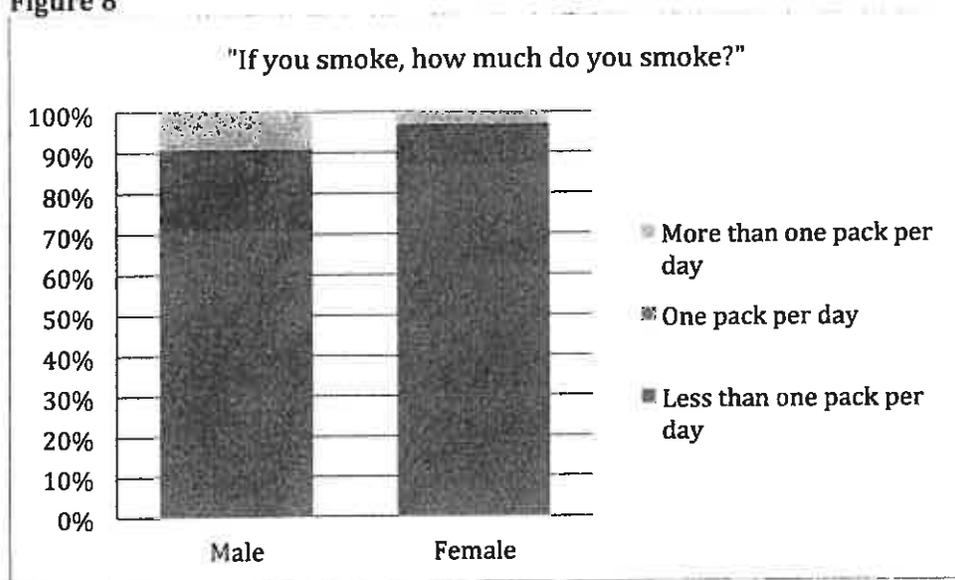


As discussed in the NSB Health Profile, household heads' reporting of tobacco smoking among high school-aged household members in this survey likely underestimated the true teen smoking rates. Also as noted in the NSB Health Profile, teen smoking rates in Barrow were significantly lower than in the other North Slope villages, as a whole. This was also true when looking at Inupiat teens only.

Amount smoked:

Among Barrow household heads, males were more than twice as likely as females to report smoking one or more packs per day (29 percent vs. 13 percent respectively). Amount smoked did not vary significantly by ethnic group.

Figure 8



Smoking in house:

Among Barrow household heads, 69 percent of smokers and 95 percent of non-smokers did not allow smoking in the house. Younger household heads were significantly less likely to permit smoking in the house.

Interest in quitting smoking:

Among Barrow household heads who smoked, 70 percent of smokers stated that they are interested in quitting, and this did not differ significantly by age, ethnicity or gender.

Tried quitting smoking:

Among Barrow household heads who smoked, 61 percent reported stopping smoking for one day or longer in the last year because they were trying to quit. This did not differ significantly by ethnicity or age, but women were more likely than men to have tried quitting (68 percent vs. 56 percent respectively).

Support tobacco tax:

Of the 86 percent of household heads who answered this question, a majority (59 percent) supported a tobacco tax to support tobacco prevention programs. Caucasians were the ethnic group most likely to support the tax.

Health Insurance:

Health insurance coverage was relatively high in Barrow. When eligibility for Indian Health Service-funded care is included, over 97 percent of Barrow household heads report having some form of health insurance, compared to only 83 percent statewide⁷.

A majority of Barrow household heads had health insurance other than eligible use of health care funded through the Indian Health Service.

Table 3

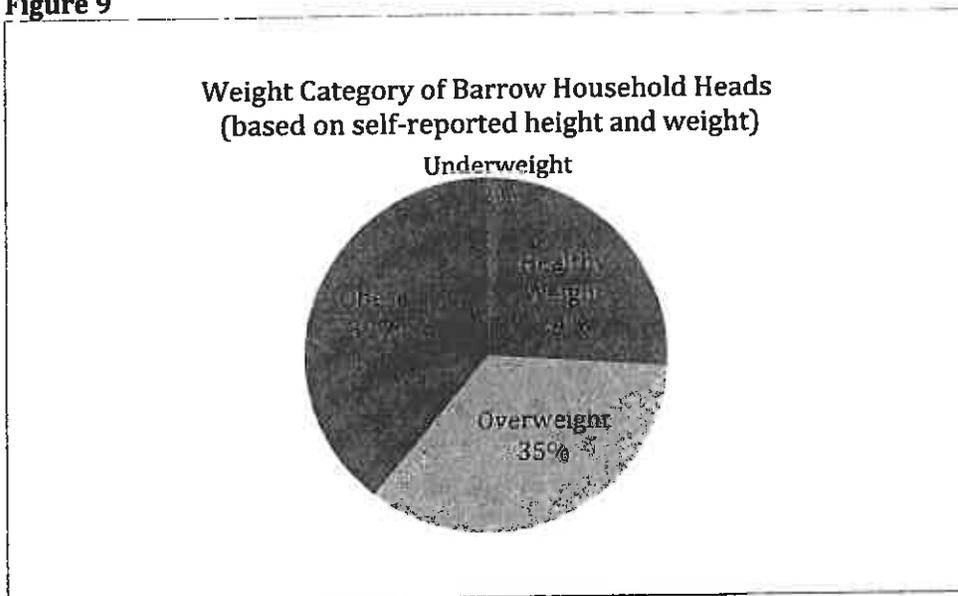
	Health insurance other than IHS eligibility
Ifupiat	59%
Caucasian	96%
Other ethnicity*	88%
Total	73%

*a small percentage of "other ethnicity" were Alaska Native or American Indian and thus also eligible for IHS-funded services

Obesity:

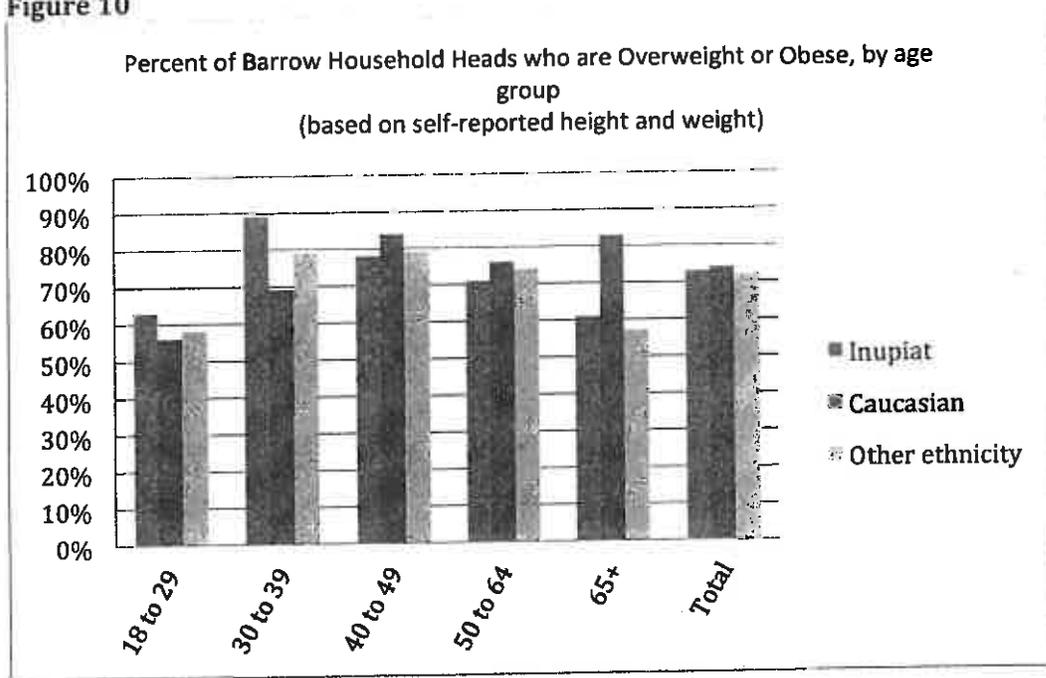
According to standard BMI guidelines, roughly one in four Barrow household heads were at a healthy weight and almost three out of four were overweight or obese.

Figure 9



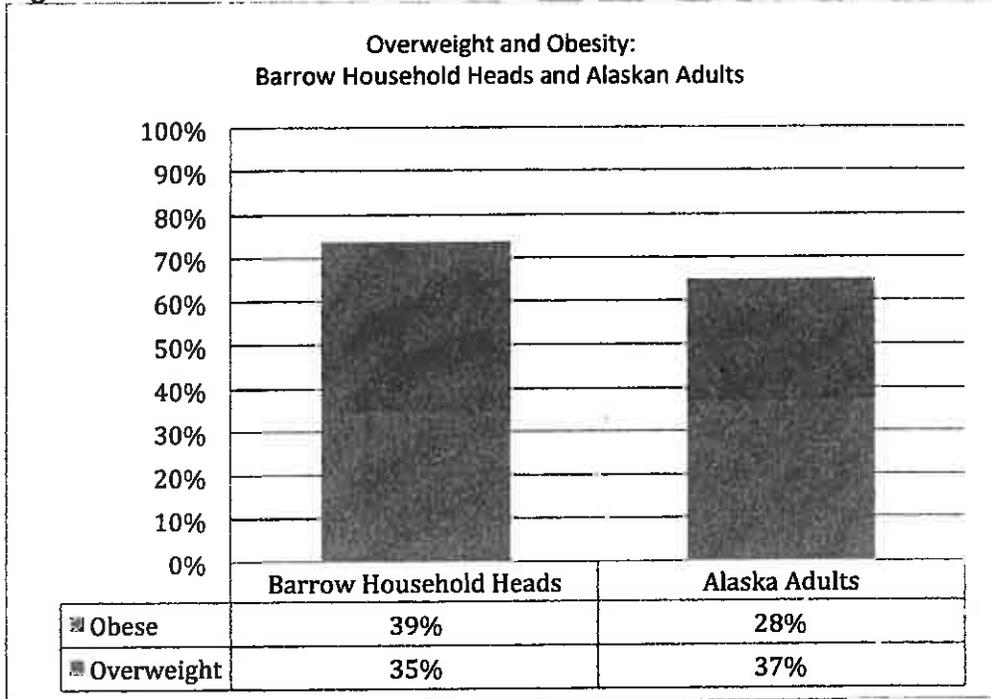
Overweight and obesity were common in all age groups. The likelihood of being overweight or obese did not vary significantly by ethnic group or gender.

Figure 10



Barrow household heads were slightly less likely to be overweight but more likely to be obese than were their statewide counterparts.

Figure 11



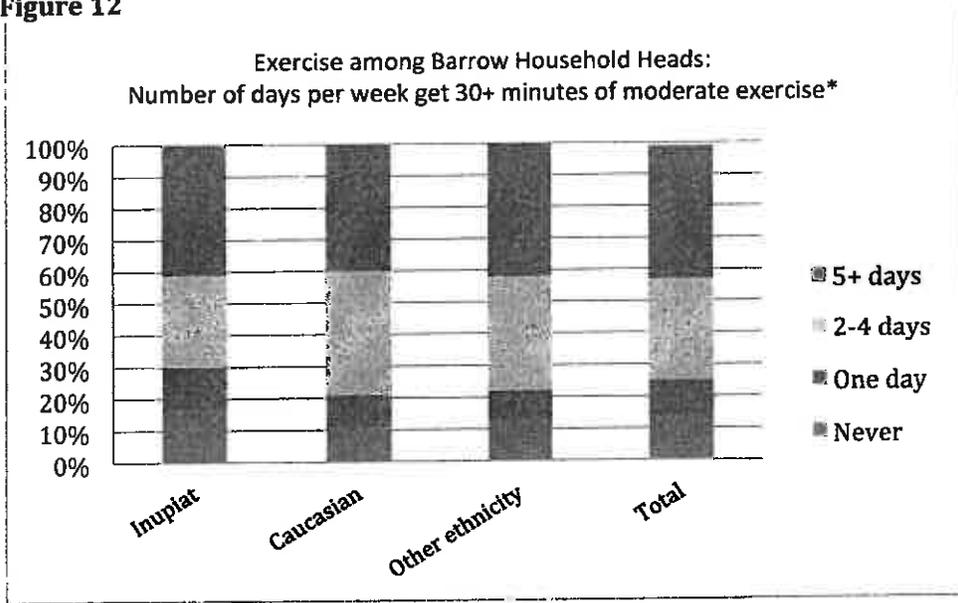
Alaska data source: 2008 Alaska BRFSS

Physical Activity:

Overall, about 40 percent of Barrow household heads reported achieving the recommended goal of getting at least 30 minutes of moderate exercise 5 or more days per week, while 14 percent reported never doing so. These estimates are similar to the estimates derived from the 2007 Alaska BRFSS telephone survey.

Level of exercise did not vary significantly among different ethnic groups. Among Iñupiat and Caucasian household heads, younger respondents were more likely than their older counterparts to report getting moderate exercise at least twice a week and less likely to report never exercising. As noted in the NSB Health Profile, household heads in other North Slope villages, as a whole, were more likely than Barrow household heads to report getting 30 minutes or more of moderate exercise at least 5 days a week.

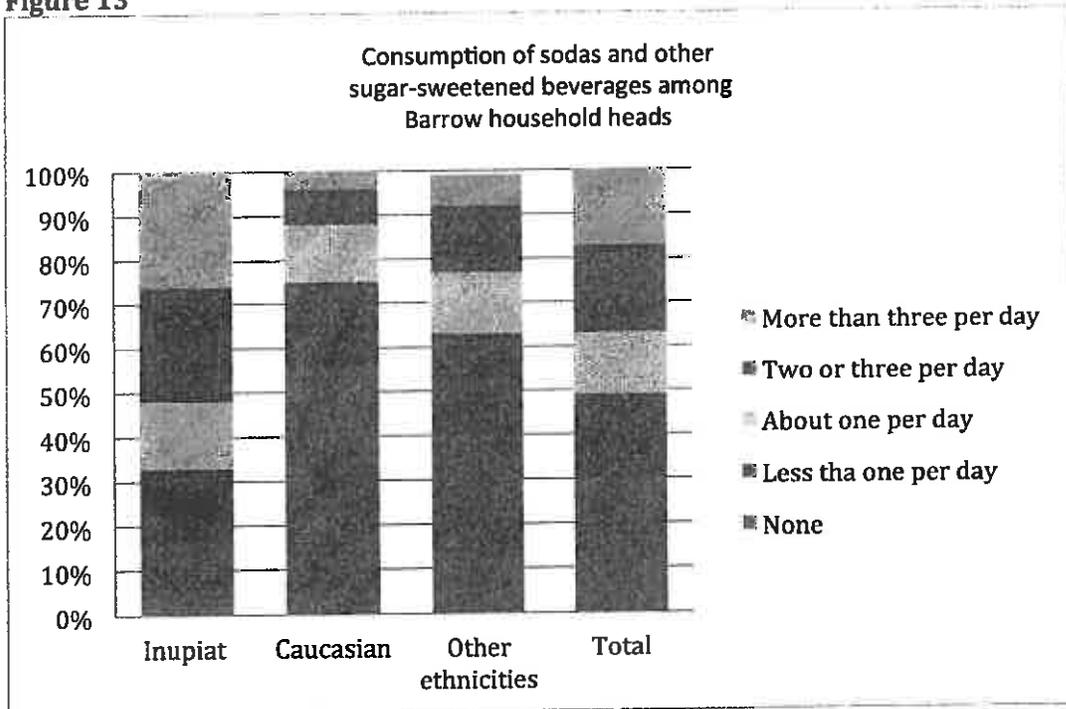
Figure 12



Soda and other Sugar-Sweetened Beverage Consumption:

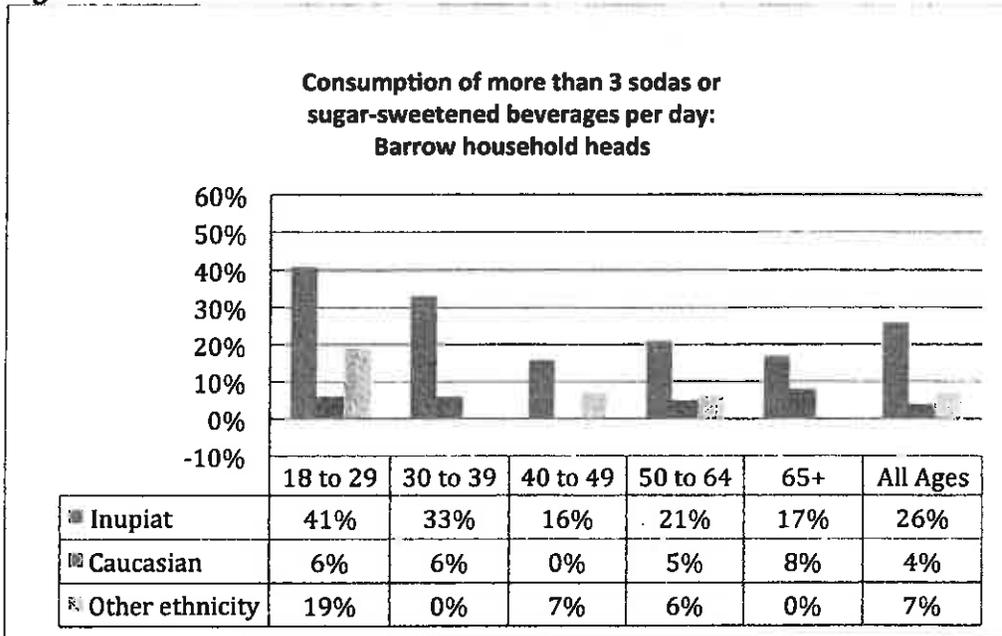
Consumption of sugar-sweetened beverages was highest among Inupiat household heads and lowest among Caucasian household heads. Consumption varied significantly among ethnic groups, with Caucasians more likely to report not drinking sugar-sweetened beverages at all and Inupiat more likely to report drinking more than three per day.

Figure 13



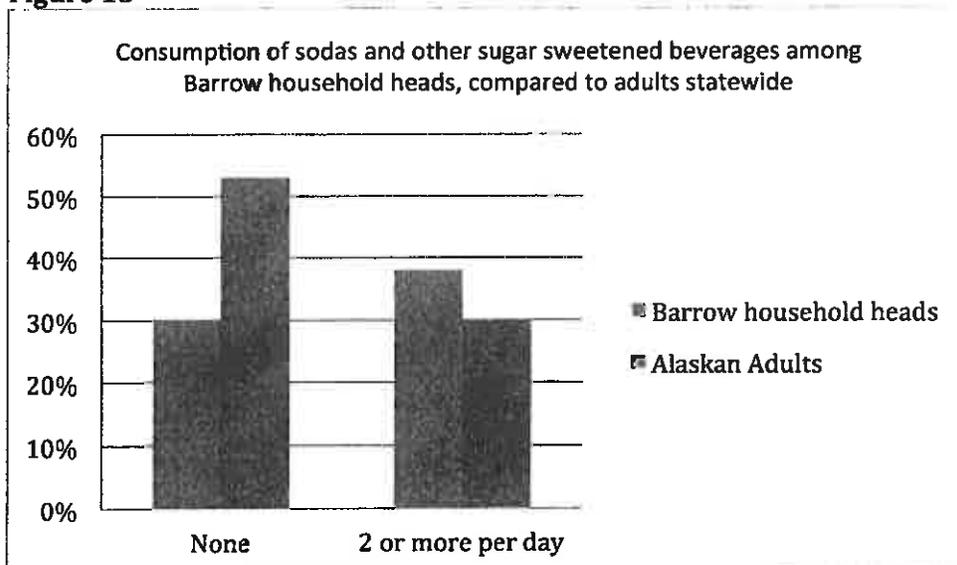
Among Inupiat, consumption of sugar-sweetened beverages varied significantly by age, with younger household heads more likely to report higher levels of consumption.

Figure 14



Barrow household heads were less likely to report no consumption of these beverages and more likely to report drinking 2 or more per day than were their statewide counterparts. As noted in the NSB Health Profile, however, Barrow household heads—both Inupiat and all—reported drinking significantly fewer of these beverages than their counterparts in the other North Slope villages as a whole.

Figure 15

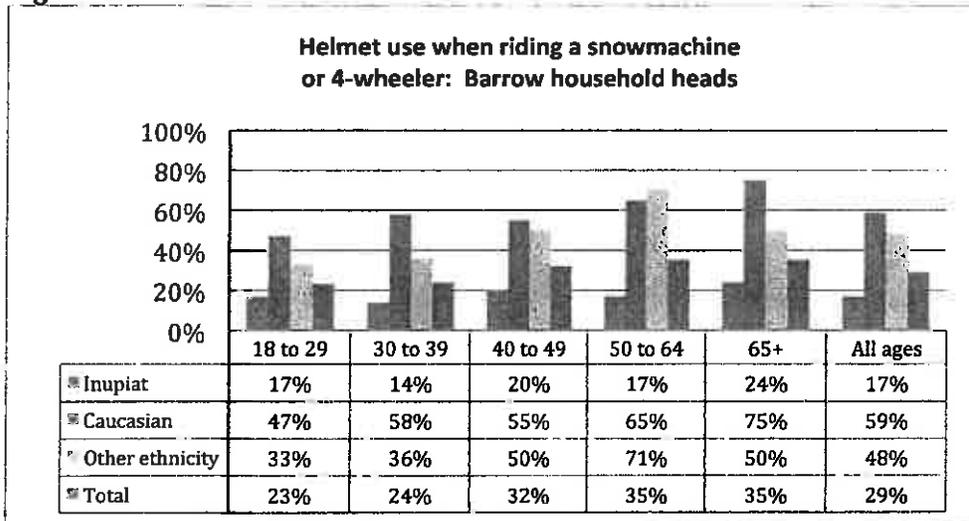


Alaska data source: State of Alaska Department of Health and Social Services: *Obesity Facts: Sugar-sweetened beverages in Alaska*, based on 2009 Alaska BRFSS

Helmet Use:

Overall, **only 29 percent** of Barrow household heads who rode snowmachines or 4-wheelers reported wearing helmets when riding. Reported helmet use was significantly lower among Iñupiat household heads, compared to Caucasian and those of other ethnicities. Overall helmet use among household heads in Barrow, and particularly among Iñupiat, was considerably lower than statewide estimates for snowmachine helmet use (57 percent). As discussed in the NSB Health Profile, however, helmet use was higher in Barrow than in the other North Slope villages, as a whole, both among Iñupiat and all ethnic groups combined.

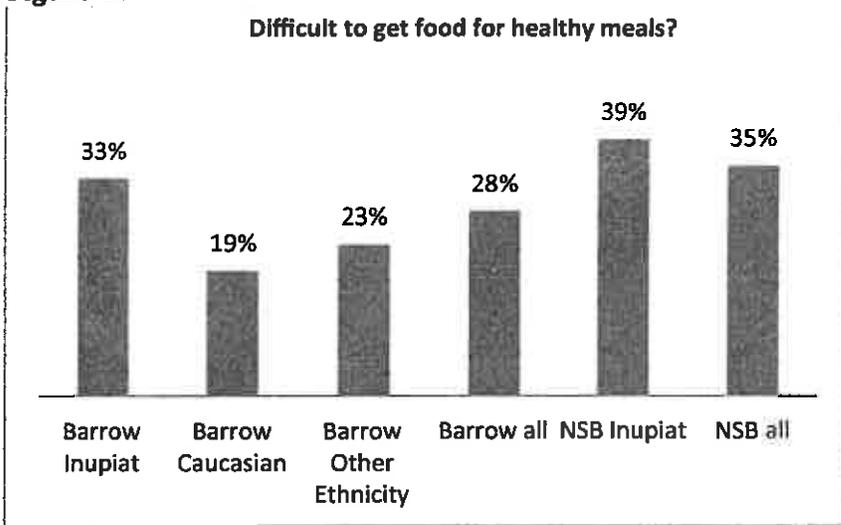
Figure 16



Food Security:

In Barrow, over one in four household heads reported difficulty getting the foods needed to eat **healthy** meals. One in three Iñupiat household heads reported such difficulty, a significantly **higher** proportion than in Caucasians or other ethnicities. This measure did not vary significantly by age or gender. Barrow household heads were less likely than household heads **slope-wide** to report difficulty getting foods for healthy meals. As noted in the NSB Health Profile, Iñupiat household heads living in Barrow were significantly less likely than their counterparts in the other North Slope villages overall to report difficulty getting food for **healthy** meals.

Figure 17



The vast majority of Barrow household heads reporting difficulty getting food to eat healthy meals reported that it was because of not being able to get enough store foods. Among Inupiat reporting difficulty getting foods for healthy meals, however, almost half also reported that it was because they couldn't get enough subsistence foods.

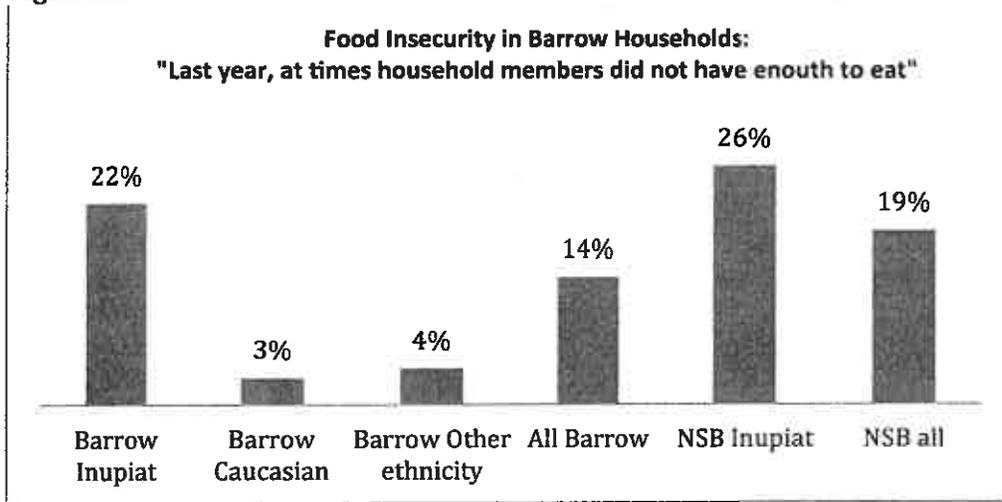
Table 4

	Food Insecurity in Barrow: Subsistence and Store Foods	
	If had difficulty getting foods for healthy meals, was because couldn't get enough subsistence foods	If had difficulty getting foods for healthy meals, was because couldn't get enough store foods
Inupiat	46%	91%
Caucasian	11%	97%
Other ethnicity	20%	97%
Total	36%	93%

Overall, 14 percent of Barrow household heads reported that, at times last year, household members did not have enough to eat. Overall, Barrow reported lower levels of food insecurity than did the NSB as a whole. Within Barrow, however, Inupiat household heads were 7 times more likely than were Caucasian household heads to report household members who at times, did not have enough to eat.

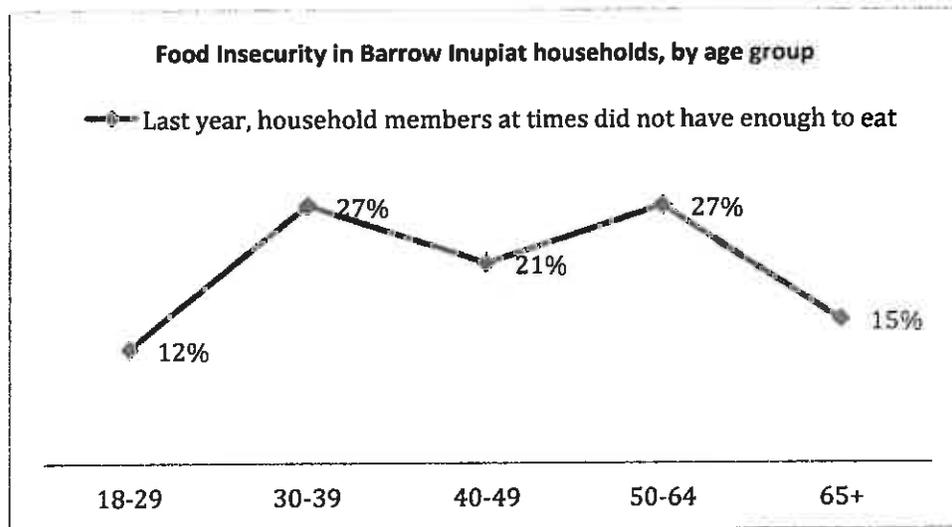
As noted in the NSB Health Profile, Barrow household heads were significantly less likely than those in the other North Slope villages overall to report household members who did not have enough to eat. This was true looking at Inupiat only as well as all ethnic groups combined.

Figure 18



Among Inupiat households, there was a significant relationship between age of the household head and the likelihood of having household members who did not have enough to eat at time. Household heads in the youngest and oldest age groups were less likely than were those in the middle age groups to report household members not having enough to eat.

Figure 19

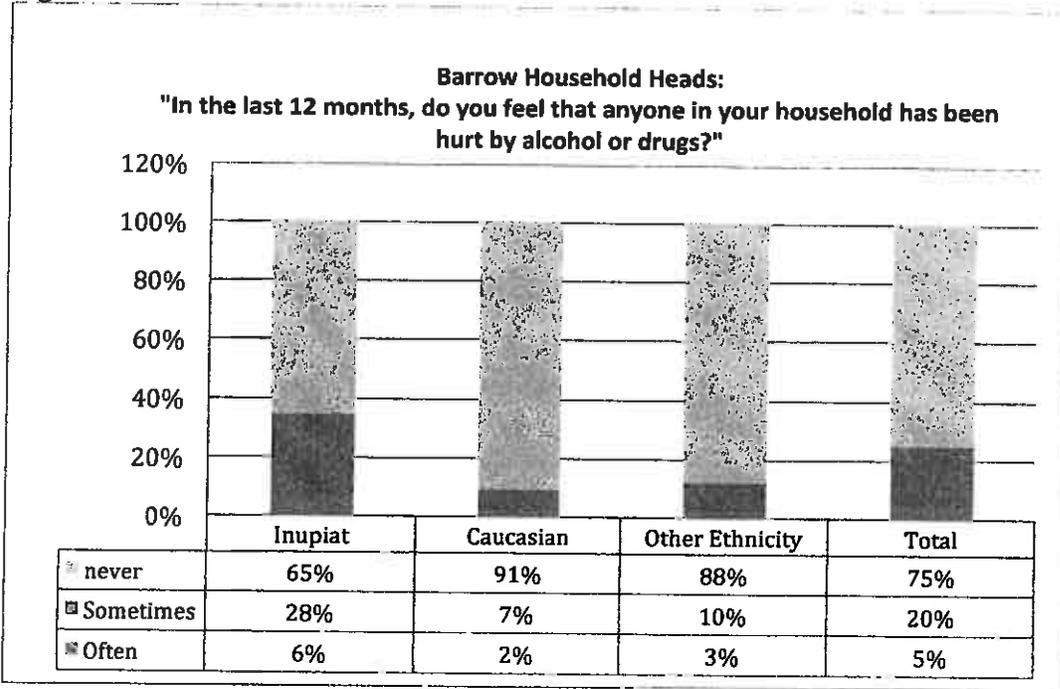


Alcohol and Drug Problems:

Impact on Household: Three out of four Barrow household heads did not feel that anyone in their household had been hurt by alcohol or drugs in the past year. Inupiat household heads were significantly more likely than were Caucasians or those in other ethnic groups to report that a household member had been hurt by alcohol or drugs in the last year. Responses to this question did not vary significantly by gender or age group. As

noted in the NSB Health Profile, Inupiat household heads living in Barrow were significantly more likely than their counterparts in the other North Slope villages overall to feel that a member of their household had been hurt by alcohol or drugs in the last year.

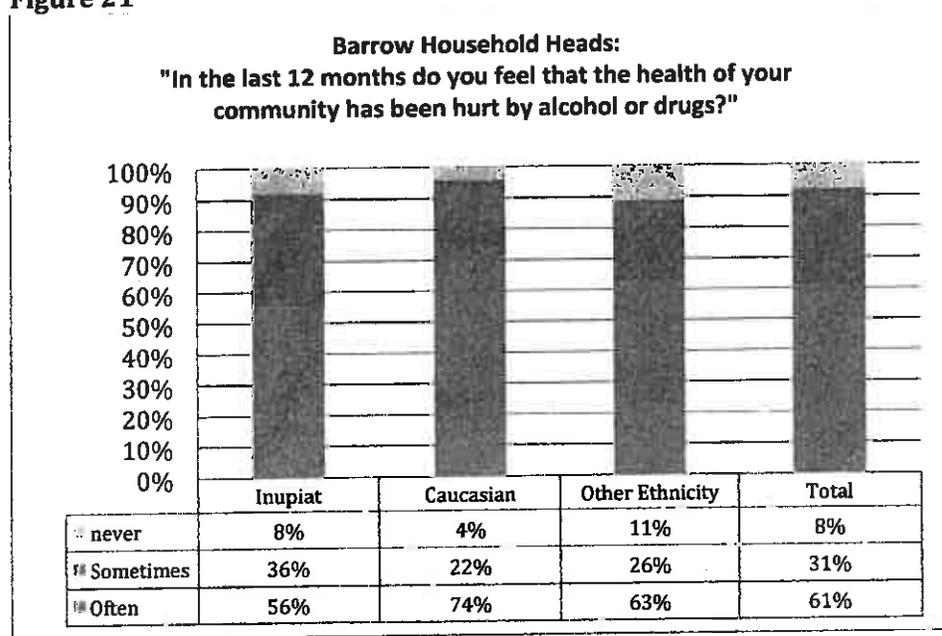
Figure 20



Impact on Community:

Caucasian household heads in Barrow were more likely than Inupiat household heads to report feeling that the health of the community had "often" been hurt by alcohol and drugs in the last year. Among Caucasians, the responses to this question differed significantly by gender, with Caucasian females the most likely to feel that the health of the community had "often" been hurt by alcohol or drugs in the last year. Responses did not vary significantly by age group.

Figure 21



Iñupiaq Language Use:

Table 72 below indicates, by proportion, changes in the primary language spoken in homes of all ethnicities from 1998 until 2010. While it is not completely clear it appears that the 1998 sample frequencies included both Iñupiat and non-Iñupiat households so the comparisons in this analysis will follow this precedent and categorize changes across all households. The sample sizes between 1998 and 2010 seem fairly consistent; however, the 2003 survey had 76 households with missing information about 8 percent of all households in the sample. In comparison the 2010 survey had only three households with missing information. Thus, while there might be some sampling bias in 2003, when one takes into account sampling error there seems to be a fairly consistent proportion, at slightly under 10 percent, of Barrow homes that speak mostly Iñupiaq at home. In addition, it appears that about a quarter of all Barrow households (including all ethnicities), during this same twelve-year period, speak both Iñupiaq and English. During this same period slightly over half of all households are monolingual in English. Overall the consistency of these proportions over time is fairly remarkable. When we consider only Iñupiat households in 2010 then we see that about one fifth of these households speak mostly Iñupiaq at home while an additional 40 percent speak both Iñupiaq and English at home.

Table 72: Barrow 1998 -2010 Primary Language Spoken at Home
(All Ethnicities)

LANGUAGE USED	1998 Number	1998 Percent	2003 Number	2003 Percent	2010 Count	2010 Percent
Iñupiaq mostly	76	8%	75	8%	98	10%(18)*
Both English & Iñupiaq	257	27%	222	24%	235	25%(40)*
English mostly	509	53%	511	56%	515	55%(42)*
English &/or another language	113	12%	106	12%	92	10%
Total	955	100%	914	100%	940	100%

*Numbers in parenthesis represent percent of Iñupiat households.

When we add the additional criteria of speaking Iñupiaq fluently to the question the results remain fairly consistent, monolingual English speaking households are one third of the respondents (versus 42 percent in the previous question) so about two thirds of Iñupiat households in Barrow in 2010 have at least one fluent Iñupiaq speaker. However, this proportion has decreased from the 75 percent of households in 2003 that had a least one fluent Iñupiaq speaker.

Table 73: Barrow 2003 – 2010 – “How Many Household Members Speak Iñupiaq Fluently?”

MEMBERS OF HOUSEHOLD	2003 Count	2003 Percent	2010 Count	2010 Percent
0	113	25%	175	32%
1	187	42%	221	40%
2	106	22%	127	23%
3	27	6%	20	4%
4	11	2%	8	1%
5 or more	6	1%	5	<1%
Total	450	100%	556	100%

Table 74 below reinforces prior comparisons in this section as we note a gradual erosion since 2003 in the number of Iñupiaq speaking households (regardless of preference) decreasing from a majority (54 percent) in 2003 to less than half (46 percent) in 2010. Speaking Iñupiaq within the household is now preferred by less than 40 percent of the Iñupiat households in Barrow.

Table 74: Barrow 2003 - 2010 Iñupiat Household Members Competency in Iñupiaq.

COMPETENCY	2003 Number	2003 Percent	2010 Number	2010 Percent
Speaks Fluently & prefers Iñupiaq	206	46%	213	38%
Speaks Fluently & prefers English	36	8%	48	9%
Speaks Fluently but doesn't prefer	26	6%	-	
Speaks with difficulty	15	3%	27	5%
Understands well & speaks enough	27	6%	46	8%
Understand well but hardly speaks	31	6%	54	10%
Understands some & speaks enough	12	2%	33	6%
Understands simple questions & speaks a little	34	7%	46	8%
Understands simple questions but hardly speaks	35	7%	40	7%
Understands two dozen words	12	2%	23	4%
Understands 5 or 6 words	4	1%	8	1%
Understands only a few words	8	2%	18	3%
Total	446	100%	556	100%

Finally, these results are substantiated in the final table in this section where we note hardly any Iñupiaq speakers under the age of 15 with most fluent speakers being 35 years of age or older.

Table 75: Barrow 2010 – Iñupiat Individuals' Iñupiaq Competency by Age Category.

Iñupiaq fluency - how fluently does individual HH member speak Iñupiaq?	Recode of Individual's Age into Groups for Language Competency Comparison					
	1	3	20	232	124	380
Speaks Iñupiaq fluently & prefers this language	1	3	20	232	124	380
Speaks Iñupiaq fluently but prefers another language	1	1	14	75	11	102
Speaks Iñupiaq but with difficulty or with minor flaws	0	3	33	27	0	63
Understands Iñupiaq well & speaks enough	1	18	46	43	2	110
Understands Iñupiaq well but hardly speaks it	5	40	99	43	0	187
Understands some Iñupiaq conversations & speaks enough	4	41	78	20	2	145
Understands simple questions and directions, speaks a little	17	103	109	23	2	254
Understands simple questions and directions but hardly speaks any	14	109	102	28	1	254
Understands at least two dozen Iñupiaq words.	14	72	60	17	3	166
Understands at least five or six Iñupiat words	24	63	33	8	1	129
Does not understand more than a few Iñupiaq words.	40	69	44	22	1	176
Total	121	522	638	538	147	1966

Schools:

The following five tables (Tables 76-80) disaggregate household head opinions about the NSB school system by ethnicity. The five measures that assess satisfaction with the school system include textbooks, preparedness to use technology, computer use, subjects offered and quality of instruction. The first point to be made on these five tables is the high levels of satisfaction across all measures by all ethnicities. With one of two exceptions two thirds of all respondents reported they were satisfied or very satisfied with these aspects of the NSB school system. However, there were some systematic differences among ethnic groups. On all measures but one Iñupiat and Filipino respondents were significantly more satisfied with their schools than were either Caucasian or "other" households. In almost all measures Iñupiat households were 10 percent "more satisfied" than Caucasian households and in most cases Filipino were slightly more enthusiastic than Iñupiat households. Conversely, as one might expect, about 10 percent of Caucasian (and "other") households were more dissatisfied than either Iñupiat or Filipino households. The

one major exception to this generalization is that Caucasian household heads were significantly more positive in their satisfaction with the quality of instruction provided by NSB schools. Subsequent analysis would have to control for employment and other variables to explain this difference.

Table 76: Barrow 2010 – Household Head Respondent’s Satisfaction with School Textbooks.

Textbooks	Iñupiat	Caucasian	Filipino	Other
Very Dissatisfied	2%	3%	0%	3%
Dissatisfied	9%	15%	5%	11%
Neither	23%	27%	21%	33%
Satisfied	57%	41%	55%	45%
Very Satisfied	9%	14%	19%	8%
Total	100%	100%	100%	100%

Table 77: Barrow 2010 – Household Head Respondent’s Satisfaction with Student’s Preparedness to Use Technology.

Technology	Iñupiat	Caucasian	Filipino	Other
Very Dissatisfied	1%	3%	0%	4%
Dissatisfied	7%	13%	5%	11%
Neither	17%	19%	13%	23%
Satisfied	53%	50%	60%	41%
Very Satisfied	22%	15%	22%	21%
Total	100%	100%	100%	100%

Table 78: Barrow 2010 – Household Head Respondent’s Satisfaction with Student’s Assigned Computers.

Computers	Iñupiat	Caucasian	Filipino	Other
Very Dissatisfied	2%	2%	8%	6%
Dissatisfied	5%	9%	0%	9%
Neither	15%	20%	20%	12%
Satisfied	54%	43%	36%	45%
Very Satisfied	24%	26%	36%	28%
Total	100%	100%	100%	100%

Table 79: Barrow 2010 – Household Head Respondent’s Satisfaction with the Range of Subjects and Classes Offered.

Subjects	Iñupiat	Caucasian	Filipino	Other
Very Dissatisfied	2%	1%	0%	7%
Dissatisfied	10%	18%	7%	20%
Neither	24%	29%	25%	25%
Satisfied	55%	47%	53%	41%
Very Satisfied	9%	5%	15%	7%
Total	100%	100%	100%	100%

Table 80: Barrow 2010 – Household Head Respondent’s Satisfaction with Quality of Instruction Provided by School’s Teachers.

Teachers	Iñupiat	Caucasian	Filipino	Other
Very Dissatisfied	4%	0%	0%	3%
Dissatisfied	8%	7%	12%	15%
Neither	26%	23%	21%	17%
Satisfied	49%	50%	52%	51%
Very Satisfied	13%	20%	14%	14%
Total	100%	100%	100%	100%

Ethnicity also influences household heads' attitudes towards homework. About 35-40 percent of Iñupiat household heads said there should be more or a lot more homework required at all school levels, with high school students requiring the most additional work. With the exception of elementary schools, a higher proportion of Caucasian household heads, in the 50-60 percent range, thought that students needed more homework. All ethnic groups had higher proportions requiring more homework at the middle and high school levels, it seems a majority of parents want to give their primary school students a little respite from the rigors to come. At all levels "other" ethnic household heads demanded more home work, with 60-70 percent, at all levels demanding more or a lot more homework. Filipino household heads were intermediate between Iñupiat and Caucasian/"other" households heads in their opinions on home work, although like other respondents they were significantly more demanding for high school level students.

Table 81: Barrow 2010 Household Head's Opinion about School Homework (Elementary-High School) by Ethnicity.

Household Head's Opinion about Amount of Homework.		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Schools: "What do you think about the amount of homework in Elementary Schools?"	1. No homework	1.7%	2.7%	0%	0%
	2. Less homework	14.8%	8.0%	5.4%	12.3%
	3. About the same	55.4%	50.0%	51.4%	36.9%
	4. More homework	22.9%	35.7%	32.4%	32.3%
	5. A lot more homework	5.2%	3.6%	10.8%	18.5%
	Total	100.0%	100.0%	100.0%	100.0%
Schools: "What do you think about the amount of homework in Middle Schools?"	1. No homework	1.0%	2.2%	0%	0%
	2. Less homework	8.9%	2.2%	6.5%	1.9%
	3. About the same	53.1%	45.1%	45.2%	37.7%
	4. More homework	31.8%	46.2%	38.7%	45.3%
	5. A lot more homework	5.2%	4.4%	9.7%	15.1%
	Total	100.0%	100.0%	100.0%	100.0%
Schools: "What do you think about the amount of homework in High Schools?"	1. No homework	1.0%	2.2%	0%	0%
	2. Less homework	9.5%	3.3%	6.1%	1.7%
	3. About the same	49.5%	44.6%	33.3%	38.3%
	4. More homework	32.1%	37.0%	48.5%	36.7%
	5. A lot more homework	7.9%	13.0%	12.1%	23.3%
	Total	100.0%	100.0%	100.0%	100.0%

The vast majority of household heads of all ethnicities were positive about their children's involvement in the NSB school system. By "vast majority" we mean 80-90 percent of almost all household heads were either noncommittal or positive in their responses. One can note two exceptions to this generalization. First, parents tend to be less satisfied the further their students go in schools, that is, dissatisfaction increases as students advance to high school. The second exception is the "other" ethnicity category (e.g. non-Iñupiat Alaskan Natives, Pacific Islanders, African Americans and a variety of other ethnicities that form 10 percent of the total sample) – in general they were more pessimistic about their children's involvement in school, at all levels.

Table 82: Barrow 2010 Household Head's Opinion about Child's Involvement in School (Elementary-Middle-High School) by Ethnicity.

		Ethnicity Recorded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Elementary School: "How would you rate your child's connectedness & involvement?"	1. Very disconnected	1.1%	0%	0%	6.3%
	2. Somewhat disconnected	5.3%	6.1%	10.0%	9.4%
	3. Equally discon/connected	25.1%	6.1%	30.0%	12.5%
	4. Somewhat connected	26.2%	12.1%	20.0%	21.9%
	5. Very connected	42.2%	75.8%	40.0%	50.0%
	Total	100.0%	100.0%	100.0%	100.0%
Middle School: "How would you rate your child's connectedness & involvement?"	1. Very disconnected	.9%	0%	0%	13.3%
	2. Somewhat disconnected	3.6%	15.0%	0%	0%
	3. Equally discon/connected	25.2%	5.0%	0%	13.3%
	4. Somewhat connected	27.9%	25.0%	50.0%	26.7%
	5. Very connected	42.3%	55.0%	50.0%	46.7%
	Total	100.0%	100.0%	100.0%	100.0%
High School: "How would you rate your child's connectedness & involvement?"	1. Very disconnected	3.2%	4.5%	0%	16.0%
	2. Somewhat disconnected	8.7%	0%	0%	4.0%
	3. Equally discon/connected	17.5%	4.5%	0%	8.0%
	4. Somewhat connected	31.7%	18.2%	18.2%	36.0%
	5. Very connected	38.9%	72.7%	81.8%	36.0%
	Total	100.0%	100.0%	100.0%	100.0%

Like most of the measures in this section the vast majority of all household heads had positive opinions about the amount of respect offered to school principals or elders in their community. However, the degree of respect to these two different sets of individuals varied by ethnicity. About a quarter of Iñupiat household heads thought that principals were highly respected, whereas two thirds felt that elders in the community were highly respected. In contrast about 40 percent of Caucasian household heads felt both principals and elders were highly respected.

Table 83: Barrow 2010 – Household Head’s Rating of Authority and Respect of School Principals and Elders in the Community.

		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Schools: “How would you rate the authority of the principal at your child’s school?”	1. Substantially disrespected	2.2%	2.6%	0%	6.5%
	2. Somewhat disrespected	6.6%	10.5%	5.9%	4.8%
	3. Tolerated	21.7%	18.4%	17.6%	29.0%
	4. Somewhat respectful	45.6%	25.4%	35.3%	29.0%
	5. Highly respected	23.9%	43.0%	41.2%	30.6%
	Total	100.0%	100.0%	100.0%	100.0%
Schools: “Is the authority of elders respected by students and community members?”	1. Substantially disrespected	4%	2.6%	3.7%	3.9%
	2. Somewhat disrespected	5.4%	6.9%	3.7%	6.9%
	3. Tolerated	5.6%	9.0%	1.9%	9.8%
	4. Somewhat respectful	25.1%	42.3%	40.7%	39.2%
	5. Highly respected	63.6%	39.2%	50.0%	40.2%
	Total	100.0%	100.0%	100.0%	100.0%

Iñupiat and Caucasian household heads were fairly consistent in their judgments and experiences about the reasons students leave school without graduating. The four most important reasons they observed were “bored with school”, “behind in credits”, “drug/alcohol problems” and “had a baby”. Forty to fifty percent of Iñupiat and Caucasian household heads cited these four reasons (although ten percent more Caucasian household heads weighted drug/alcohol and having babies as more serious concerns). Responses on this variable alone might indicate that retention was a serious issue in NSB schools. However, additional empirical information from the school district will need to be obtained and compared with state-wide parameters before any conclusion on this assertion can be reached.

Table 84: Barrow 2010 – “Why during the last two years, did NSB students, that you knew, leave school without graduating?”

Schools: “Why during last two years, did NSB students that you knew, leave school without graduating?”		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Illness	Yes	6.5%	8.0%	5.0%	10.8%
	No	93.5%	92.0%	95.0%	89.2%
Bored with school	Yes	46.2%	48.3%	31.7%	56.2%
	No	53.8%	51.7%	68.3%	43.8%
Behind in credits	Yes	47.4%	50.0%	29.3%	51.4%
	No	52.6%	50.0%	70.7%	48.6%
Drug/alcohol problems	Yes	44.3%	60.3%	34.1%	56.2%
	No	55.7%	39.7%	65.9%	43.8%
Needed to work	Yes	26.4%	11.3%	14.6%	17.6%
	No	73.6%	88.7%	85.4%	82.4%
Had a baby	Yes	41.9%	50.7%	38.1%	45.9%
	No	58.1%	49.3%	61.9%	54.1%
Kicked out of school	Yes	26.6%	26.7%	12.2%	35.6%
	No	73.4%	73.3%	87.8%	64.4%

If one adds the percentages from strategy 1 and 2 together one finds that Iñupiat and Caucasian household heads are fairly close on their weighting of two strategies anti-bullying (20 percent vs. 15 percent) and providing attendance incentives (41 percent vs. 38 percent). On three other measures there are contrasting opinions with Caucasian household heads strongly favoring stronger penalties for truancy (37 percent vs. 20 percent) while Iñupiat strongly in favor of providing more activities (59 percent vs. 21 percent). While it might seem Caucasian households lean more heavily towards enforcement approaches both sets of parents are also strongly in favor of providing incentives as a viable approach to improving attendance.

Table 85: Barrow 2010 – “What do you think would be the best two strategies to improve student attendance?” by Ethnicity.

Schools: “What do you think would be the best two strategies to improve student attendance?”		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Strategy 1	Stronger penalties for truancy	12.7%	26.8%	15.6%	14.9%
	Offer different courses	18.4%	12.8%	11.1%	13.8%
	Anti-bullying programs	10.5%	6.1%	11.1%	5.3%
	Provide attendance incentives	16.6%	14.5%	24.4%	17.0%
	More activities	25.7%	8.4%	28.9%	19.1%
	Other (specify)	16.1%	31.3%	8.9%	29.8%
	Total	100.0%	100.0%	100.0%	100.0%
Strategy 2	Stronger penalties for truancy	7.7%	10.5%	11.1%	15.8%
	Offer different courses	14.3%	9.8%	8.3%	14.5%
	Anti-bullying programs	9.3%	9.2%	11.1%	6.6%
	Provide attendance incentives	24.9%	22.9%	30.6%	22.4%
	More activities	33.1%	17.6%	30.6%	22.4%
	Other (specify)	10.8%	30.1%	8.3%	18.4%
	Total	100.0%	100.0%	100.0%	100.0%

Table 86: Barrow 2010 – “Do you think the NSB schools prepare students for life after high school?” by Ethnicity.

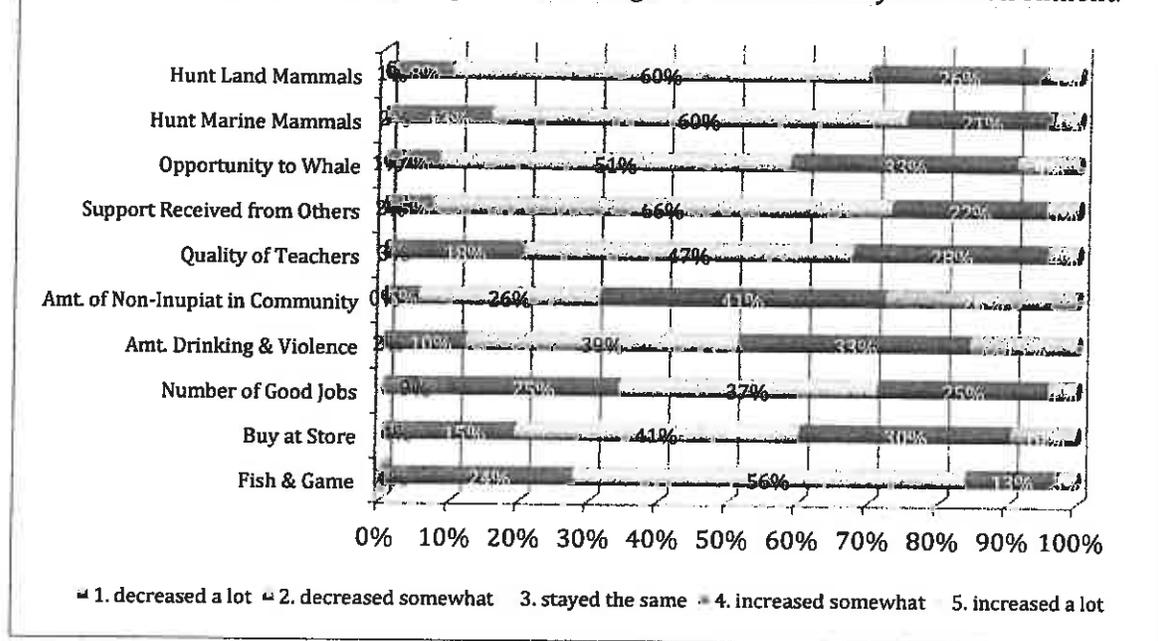
Schools: “Do you think the NSB schools prepare students for life after high school?”	Ethnicity Recoded for Barrow 4 Categories			
	Iñupiat	Caucasian	Filipino	Other
	Column N %	Column N %	Column N %	Column N %
1. Not at all prepared	9.5%	14.2%	6.1%	16.3%
2. Somewhat unprepared	18.0%	24.0%	14.3%	22.1%
3. Somewhat prepared	39.2%	36.1%	53.1%	37.2%
4. Prepared	29.4%	23.5%	24.5%	24.4%
5. Exceptionally prepared	3.8%	2.2%	2.0%	0%
Total	100.0%	100.0%	100.0%	100.0%

Finally, Caucasian and “other” ethnic households are more pessimistic about the ability of NSB schools to prepare their students for life after high school – about 38 percent of these household heads were negative in their appraisal of preparedness. In contrast about 28 percent of Iñupiat household heads held the same opinion (with Filipino household heads being the most optimistic). However, a careful look at Table 86, below, indicates only about a third to a quarter of household heads in Barrow feel that the NSB

school district is fully preparing their children for life after high school
Perceptions about Changes in the Community:

In 2010 the major areas of concern from respondents seem to be the number of good jobs (where a third of respondents expressed concerns), increases in the amount of drinking and violence (one in two respondents expressed concern about increases in these behaviors) and increases in the number of non-Iñupiat in the community.

Chart 9: Barrow 2010 – Perceptions of Change in the Community and Environment.



Barrow, like a number of other communities in this survey, has remained remarkably consistent in their attitudes toward their community over time. The two exceptions are a more pessimistic opinion about the quality and diversity of things available at local stores and a substantial increase in optimism in the availability of good jobs. Almost all the other opinions remain consistent, whether it be the available amount of fish and game, quality of teachers, support received from others and the opportunity to engage in whaling a keystone subsistence activity. In addition, there appears to be the perception of increasing numbers of non-Iñupiat within the community. Finally, there appears to be a consistent pessimism about the amount of drinking and violence within the community. Currently about one in two household heads believes these behaviors are on the increase, a proportional increase also noted by respondents in the 2003 survey.

Table 87: Barrow 2003-2010 Perceptions of Change within the Community.

Perception of Change 2003-2010	2003 Decreased	2010 Decreased	2003 Stayed the Same	2010 Stayed the Same	2003 Increased	2010 Increased
Fish & Game	24%	28%	60%	56%	16%	16%
Buy at Store	8%	19%	37%	41%	55%	40%
Number of Good Jobs	62%	34%	24%	37%	14%	29%
Amt. Drinking & Violence	14%	12%	32%	39%	54%	48%
Amt. of Non-Inupiat in Community	15%	5%	21%	26%	64%	69%
Quality of Teachers	11%	21%	57%	47%	32%	32%
Support Received from Others	15%	7%	54%	66%	31%	27%
Opportunity to Whale	14%	8%	44%	51%	42%	42%

Chart 10: Barrow 2003-2010 – Perceptions of Change within the Community

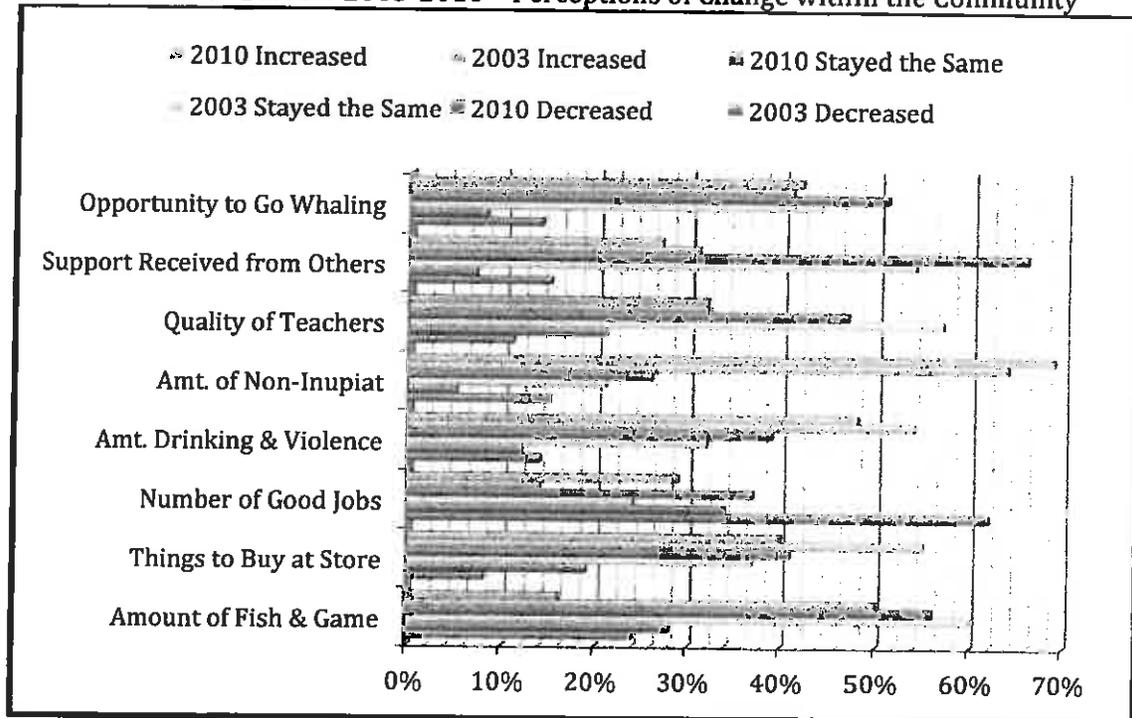


Table 88 below takes five of these perceptions and seeks to see if they are in variation in these opinions that may be based on ethnicity. A brief perusal of the results seems to indicate that, in general, there seems to be very little variation in perceptions that could be attributed to ethnicity. One exception is that Caucasian household heads seem more pessimistic about the amount of fish and game available when compared to Iñupiat household heads in Barrow. About 34 percent of Caucasian household heads perceive decreasing amounts while only about one quarter of Iñupiat household heads hold the same opinion. One other contrast occurs with the amount of drinking and violence in the

community. On this measure slightly over half (52 percent) of the Iñupiat household heads perceive increases in this disruptive behaviors whereas only about 39 percent of Caucasian household heads have the same opinion.

Table 88: Barrow 2010 – Community Perceptions of Change by Ethnicity.

Barrow 2010 – Community Perceptions of Change		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat	Caucasian	Filipino	Other
		Column %	Column %	Column %	Column %
Attitudes: Has the amount of fish and game?	1. Decreased a lot	3.6%	2.6%	3.6%	5.3%
	2. Decreased somewhat	22.9%	31.6%	17.9%	22.8%
	3. Stayed the same	54.7%	62.3%	53.6%	57.9%
	4. Increased somewhat	15.7%	2.6%	21.4%	12.3%
	5. Increased a lot	3.1%	.9%	3.6%	1.8%
	Total	100.0%	100.0%	100.0%	100.0%
Attitudes: Has the number of things you can buy at the store?	1. Decreased a lot	4.6%	2.6%	3.5%	8.0%
	2. Decreased somewhat	14.9%	13.5%	21.1%	13.0%
	3. Stayed the same	37.9%	49.7%	43.9%	37.0%
	4. Increased somewhat	32.0%	27.5%	22.8%	31.0%
	5. Increased a lot	10.5%	6.7%	8.8%	11.0%
	Total	100.0%	100.0%	100.0%	100.0%
Attitudes: Has the amount of drinking, drugs, fighting and stealing in the village?	1. Decreased a lot	2.1%	.6%	2.1%	1.1%
	2. Decreased somewhat	9.9%	12.7%	12.5%	6.6%
	3. Stayed the same	36.6%	47.3%	39.6%	39.6%
	4. Increased somewhat	35.1%	30.3%	35.4%	27.5%
	5. Increased a lot	16.3%	9.1%	10.4%	25.3%
	Total	100.0%	100.0%	100.0%	100.0%
Attitudes: Has the quality of teachers in the schools?	1. Decreased a lot	2.7%	2.1%	.0%	6.5%
	2. Decreased somewhat	16.9%	14.8%	25.0%	22.1%
	3. Stayed the same	47.1%	53.5%	36.4%	41.6%
	4. Increased somewhat	28.7%	26.8%	34.1%	23.4%
	5. Increased a lot	4.6%	2.8%	4.5%	6.5%
	Total	100.0%	100.0%	100.0%	100.0%
Attitudes: Has the support you receive from others?	1. Decreased a lot	1.9%	1.2%	2.1%	2.1%
	2. Decreased somewhat	6.6%	4.1%	2.1%	2.1%
	3. Stayed the same	62.7%	66.3%	83.0%	73.7%
	4. Increased somewhat	23.7%	25.0%	10.6%	14.7%
	5. Increased a lot	5.0%	3.5%	2.1%	7.4%
	Total	100.0%	100.0%	100.0%	100.0%

Voting:

In 2010 the number questions on voting behavior in the NSB survey was substantially increased. What the 2010 results seem to indicate is the high levels of registration, in the 80 percent range, for adults within the community. In Barrow in 2010 household heads seemed to have a slight, but noticeable, increased turnout for State and National elections in contrast to local and regional elections. With respect to comparisons with 2003, on those measures that we have comparable data, there seems to be a slight

decrease in voting for State elections, although levels of registration for NSB issues seems fairly consistent at very high levels of around 80 percent between 2003 and 2010.

Table 89: Barrow 2010 – Voting Behavior & Selective Comparisons with 2003.

Voting Behavior	Yes 2003	Yes 2010
Are you a registered voter in the North Slope Borough?	83%	81%
Did you vote in the last Borough election?	-	65%
Did you vote in the last City election?	-	60%
Did you vote in the last State election?	75%	68%
Did you vote in the last National election?	-	70%

Ethnic affiliation seems to point out some significant differences between voters. In all but National elections Iñupiat voters' turn out at significantly higher rates than do Caucasian voters, and this is especially true for City and NSB elections. In all types of elections Filipino voters turned out in lower proportions than did either Iñupiat or Caucasian voters.

Table 90: Barrow 2010 – Household Head's Voting Behavior by Ethnicity.

Voting Behavior Barrow 2010		Ethnicity Recoded for Barrow 4 Categories			
		Iñupiat Column %	Caucasian Column %	Filipino Column %	Other Column %
Voting: Are you a registered voter in the NSB?	Yes	90.1%	66.8%	65.0%	71.3%
	No	9.9%	33.2%	35.0%	28.7%
Voting: Did you vote in the last Borough election?	Yes	73.9%	48.8%	49.2%	56.0%
	No	26.1%	51.2%	50.8%	44.0%
Voting: Did you vote in the last City election?	Yes	68.4%	47.7%	42.4%	52.8%
	No	31.6%	52.3%	57.6%	47.2%
Voting: Did you vote in the last State election?	Yes	71.1%	66.2%	51.7%	62.4%
	No	28.9%	33.8%	48.3%	37.6%
Voting: Did you vote in the last National election?	Yes	66.5%	82.9%	55.9%	72.5%
	No	33.5%	17.1%	44.1%	27.5%