



THE STATE  
of **ALASKA**

GOVERNOR SEAN PARNELL  
GOVERNOR BILL WALKER

Department of Commerce,  
Community,  
and Economic Development

DIVISION OF COMMUNITY AND REGIONAL AFFAIRS

P.O. Box 110809  
Juneau, Alaska 99811-0809  
Main: 907.465.4751/907.465.4733  
Programs fax: 907.465.4761

April 30, 2015

The Honorable Charlotte Brower, Mayor  
North Slope Borough  
P.O. Box 69  
Barrow, AK 99723

RE: FY 2016 Population Determination

Dear Mayor Brower,

Thank you for contacting the Division of Community and Regional Affairs (DCRA) to request a population adjustment. The North Slope Borough requested an adjustment of its July 1, 2014 population under 3 AAC 180.030. The borough requested DCRA increase the population from 9,711, Department of Labor's estimate, to 10,466. To support the borough's request it submitted documentation to DCRA. DCRA has completed its review of the request and supporting documentation and makes the following population determination.

Barrow

The Housing Unit Method was used by the borough to estimate 5,036 permanent residents in Barrow. DCRA procedures are included in the DCRA Housing Unit Method Manual to assist communities with their efforts in seeking population adjustments. DCRA staff reviewed the borough's submitted documentation and unfortunately, it has been determined that Barrow's estimate was not conducted in accordance with the required DCRA sampling methods.

Disregarding the sampling methodology leaves DCRA with insufficient data to support Barrow's request. In an effort to gather the required data, DCRA reviewed all available documentation including field notes to verify occupancy status of all units included in the sample. However, notes on over 80 of the surveyed units remain unavailable. It is extremely important that information from all units in the sample be used in the final calculations or the data is erroneously skewed.

DCRA strives to ascertain accurate community population data. Towards this effort, DCRA was invited and traveled to Barrow where it was able to review documentation

and conduct site visits. Ultimately, DCRA is unable to grant the requested population for Barrow.

Other Communities

The Head Count Census method was used by the borough to derive 2,829 permanent residents in the remaining seven communities of Anaktuvuk Pass, Atqasuk, Kaktovik, Nuiqsut, Point Hope, Point Lay, and Wainwright. DCRA determined that the census was conducted in accordance with DCRA procedures resulting in a March 2015 population of 2,865. As outlined in page 2 of the January 2015 Housing Unit Method Manual, the resulting count must be adjusted to align with July 1, 2014. This adjustment resulted in a July 1, 2014 population of 2,823.

The final estimate for North Slope Borough after accounting for the balance of population in the borough (427) and Prudhoe Bay (2,174), is 9,893 (*See chart below*). This figure will be used by the Department of Commerce, Community and Economic Development in FY 2016 financial assistance programs.

Community	2014 DOL #	2013 Certified #	Requested in Letter	Number from Review	Linear Adjustment to July 1, 2014
Anaktuvuk Pass	324	358	380	387	375
Atqasuk	229	248	248	248	248
Kaktovik	251	262	262	262	262
Nuiqsut	444	452	449	447	449
Point Hope	651	683	698	706	697
Point Lay	189	215	242	260	242
Wainwright	553	543	550	555	550
	<b>2,641</b>	<b>2,761</b>	<b>2,829</b>	<b>2,865</b>	<b>2,823</b>
Balance	427		427	427	427
	<b>3,068</b>		<b>3,256</b>	<b>3,292</b>	<b>3,250</b>
Barrow	4,469	4,717	5,036	4,469	4,469
NSB Resident Population	7,537	7,905	8,292	7,761	7,719
Prudhoe Bay	2,174	2,174	2,174	2,174	2,174
<b>TOTAL</b>	<b>9,711</b>	<b>10,079</b>	<b>10,466</b>	<b>9,935</b>	<b>9,893</b>

For further information please see attached the *North Slope Borough Population Adjustment Request and DCRA Review and Findings, April 30, 2015*. If you have any questions about the procedures used by DCRA in making this determination, please contact Manjula Boyina, Research Analyst IV, at (907) 269-7959.

The borough may, under 3AAC 180.050, appeal this determination to the Commissioner of Commerce, Community, and Economic Development. The appeal must be postmarked within 10 days after the municipality receives the written decision.

Sincerely,



Katherine Eldemar

Director

c: Manjula Boyina, DCRA Research Analyst, IV  
Lawrence Blood, DCRA, Local Government Specialist, V

Encl: North Slope Borough Population Adjustment Request and DCRA Review and Findings,  
April 30, 2015.

**North Slope Borough Population Adjustment Request**  
**DCRA Review Findings**  
**April 30, 2015**

Below are the findings based on the review of the documentation that was provided towards requesting the population adjustment for North Slope Borough.

**A. Barrow**

**1. Required documentation as set forth in Section II.A.3, B.2 and C.3.c, of the Housing Unit Method Manual:**

- a. Final detailed inventory of housing units by type of structure after adding and removing units as necessary - There are 1588 housing units in Barrow's inventory per documentation received. Based on the review of the tax roll information (in file: 2015 Tax roll w names 330) and subtracting vacant/uninhabitable units, units under construction/renovation and itinerant units from the total count, the housing inventory number changed to 1538.
- b. Random sample selection – The census blocks were sampled instead of the housing units. The manual clearly states "...municipalities with less than 2,000 housing units must conduct a 40% random sample of all housing units." Borough staff contest that the 40% of the census blocks they included comprised 839 housing units which is more than 50% of the housing units and that therefore, their sample should be considered.
- c. Map and location of randomly selected units that were surveyed – The map did not include all 839 units that are in the census blocks.
- d. Filled survey forms showing occupancy and residents per household – The survey was conducted as part of a larger survey that included 23 pages, so the electronic file with the required information was accepted.
- e. Summary of occupied households and residents per household – This requirement was included as part of the electronic files submitted.

**2. Review of survey**

- a. 839 units in selected census blocks - If accepting all housing units within census blocks as sample, each of the 839 units should have been surveyed door-to door.
- b. 612 units had required information on occupancy status (See Attachment 1 - Summary of Units by Census Block and Housing Units) – In the initial submission, 614 units were included in the summary file. However, after adjusting the number of units for unique situations based on consulting with the community, the total number of occupied units is 590. It was also determined that 22 of the housing units were vacant (See Attachment 2). The unit types and occupancy status were adjusted based on the following:
  - reviewing the information in the survey findings as initially submitted
  - compiling the findings from meetings with staff of North Slope Borough, TNHA which revealed unique housing situations in the NSB communities:

- o Multiple families living in the same housing unit, sometimes given the shortage of housing stock and sometimes given the inability of a family to afford housing. See enclosed document (Attachment 3) for a narrative of this unique situation in NSB communities.
  - visiting several units in the community
  - reviewing additional field notes provided by the Borough staff
  - c. 49 known refusals (See Attachment 4) – Per NSB staff, there was not enough time to verify the occupants in these housing units since the survey staff did not have enough time. Proxies are allowed to provide the information in these cases but no information was included in the survey.
  - d. 94 units with partial information (See Attachment 4) - NSB staff brought in hand written notes from various field notes on many of the units noting they were refusals. The additional 94 units had some level of information as follows:
    - i. 13-Refusals
    - ii. 31-No Answer or N/A
    - iii. 50-No information. Just referred to on notes
    - iv. There were five vacant units that were listed in the notes
    - v. This was a quick review and each unit was not verified for its location within census blocks. The number would be higher if that is the case.
  - e. 84 units with no information – There is no additional information on the remaining 84 units.
3. Calculation of Estimate. The variables required to calculate the estimate are total housing units from inventory, the occupancy rate and average residents per household. Based on all information reviewed, 84 units do not have an occupancy status. These units could be either occupied or vacant. The Borough staff claim that all of them are refusals but have not provided any supporting documentation. Based on visiting the community, it was found that some units that the staff claimed to be refusals were in fact vacant units. Since vacancy is an important variable that affects the occupancy rate, a variable in calculating the estimate, there isn't sufficient information to calculate the estimate.
- B. Anaktuvuk Pass, Atqasuk, Point Hope, Point Lay, Nuiqsut, Kaktovik and Wainwright – DCRA staff reviewed the documentation and sent out items to the Borough staff for clarification. Issues identified can be classified broadly into two categories:
1. Units listed on survey but not on the map
  2. Units had multiple families residing together. NSB provided a narrative on the unique situation in the NSB communities, which is enclosed with this document (Attachment 3).

After the responses were received, all identified issues were resolved and the final population was determined.



**Attachment 2 - Vacant Units**

Census Block #	SF	D	MF
1051	3119, 3022		
1059	12363		
1063	4424		
1068	5162		5011#1, 5011#2
1076	7227	7207#A	
1107	4362	4257#1, 4257#4; 4265#1	
1121	4596		
1141	7688		
2005			722#3
2017	2063		
2025			1961#106, #209, #214, #211
2031	1434		
<b>TOTAL</b>	<b>11</b>	<b>4</b>	<b>7</b>

Attachment 3  
Complex Households – The Case of the NSB 2015 Survey.

Years of experience in survey analysis and a careful consideration of the existing literature indicate that finding unambiguous definitions of key demographic concepts can be exceedingly difficult. For example, the U.S. Bureau of the Census and its demographers aggregate data using three basic concepts: individuals, households, and families.

**1. "Households":** For the Census, a **household** consists of a person or persons, related or unrelated occupying a housing unit (a house, an apartment, or any separate living quarters). Households do not include individuals who live in group quarters (e.g., nursing homes) or any institutional living arrangement (e.g., those who are in the army or in prison).

**2. "Families":** A **family** is a group of two or more persons (one of whom is the householder), related by birth, marriage, or adoption, who reside together.

In addition, the U.S. Census takes cognizance of an additional actor:

**3. "Householder":** A householder, also called the "reference person," refers to the person in whose name the housing unit is owned or rented. Actually, this was the definition used in the 1970 Census, but in the 1980 Census the householder was defined as the first adult member listed on the Census questionnaire.

Anthropologists have a different perspective on these definitions. For example, the concept "household" need not be limited to a configuration of personnel but may include the concept of "domestic function", i.e., all persons who occupy a housing unit and share a cooking facility. In addition, households need not be limited to a single dwelling. Relatives living in different structures but who share meals together lend equipment and money or who reciprocate goods and services (e.g., baby sitting) on a regular basis may also form a multi-dwelling "household".

Anthropologists also often ignore the requirement of residence in their definition of a "family." In many cultures, non-residing kin reciprocate crucial family obligations, with "family" residence being determined by a variety of rules.

It is important to be aware of distinctions between household and family when using census data. For example, if one uses a table that enumerates mean family income, one is by definition excluding all those individuals who live alone, e.g., a non-family household. This is significant because a high proportion (38.3 percent) of non-institutionalized females 65+ live by themselves as a non-family householder, i.e., individuals living alone

or with nonrelatives. Thus, this generally poor subpopulation is not represented in "family" statistics, and these family measures would paint an overly optimistic picture of income for the aged population in the United States.

And nothing in the Alaskan setting is more misleading than to conclude that because rural Alaskan Native families live in individual dwellings, most constructed under state and federal housing programs, that their households function much like our own.

This brings us to a number of issues associated with the recent North Slope Borough survey research effort. Field researchers were often placed in a classification difficulty by the complexity of social behavior. For example, some structures classified as Single Family Residence (SFR) often contained what seemed to be more than one "household". In one case a nuclear "family" (6 permanent members) that initially occupied the structure had expanded when one of their older children returned with their spouse and child (3 permanent members) to take up residence in the former "living room" that had been restructured into a bedroom. In addition, a teacher, their spouse and child (3 permanent members) now rented one of the bedrooms formerly utilized by the "householder". This squeezing together of different "families" into one household was occasioned by a substantial housing shortage in the community.

Now our field researchers, if strictly following the State's HUM stipulations, could have simply counted this dwelling (structure) as a SFR with 12 permanent residents. However, during training and subsequent discussions they tried to classify that dwelling as a SFR with three functioning households. That is although all three "households" certainly overlapped in the use of the dwelling (and experienced considerably less privacy than we are accustomed to) they were in many respects three separate "units". Units who did not necessarily share domestic function, that is they would prepare their meals separately, and be independent in their incomes.

This is not a unique experience in rural Alaska or even the urban U.S., were "family" units, often related, bundle together in one structure because of poverty and/or lack of housing stock. In fact in Alaska the U.S. Census, recognizing these "operational" difficulties in their definitions funded a study to research "complex" households in Alaska (Inuit) and the U.S. in 2000.

[see:<https://www.census.gov/pred/www/rpts/Complex%20Households%20Final%20Report.pdf>]

As their report, "Complex Households and Relationships in the Decennial Census and in Ethnographic Studies of Six Race/Ethnic Groups" (2003:xiv) notes:

*Conceptual differences in the definition and application of a key census term, "household"*

*There is a mismatch between the census definition of "household" and the definitions of respondents in different ethnic and cultural groups that may lead to miscounting and misclassification of household types. The Census Bureau definition basically says that a household consists of all of the people who live in one housing unit. The number of households therefore equals the number of occupied housing units. In this study, we found that many Navajo and Inupiaq respondents do not identify households in terms of shared physical structure, but rather on the basis of sharing of domestic functions such as earning and pooling income, cooperating in subsistence activities, cooking, child care, child raising, and other domestic tasks. Emotional closeness is also a key component in determining who is part of one's household. The ethnographers document cases of "households without walls" where persons from more than one housing unit identify themselves as one household as well as the converse: people sharing one housing unit who consider themselves to be separate households. This ambiguity in the boundaries of "household" has been documented by anthropologists, sociologists, economists, and others.*

So there is considerable consternation among the NSB research team when the State of Alaska, which relies on the U.S. Census in their estimates, seems to dismiss our attempts at realistic classification of this complex phenomena, especially when it is not in the NSB's own interest! A SFR of 12 permanent residents adds to the average SFR household size for computational purposes, where a disaggregation as we have attempted in many cases with complex social circumstances, actually lowers the mean household size for computational purposes.

**Attachment 4 - Refusals**

CB	Unit#	Status
2005	807	Known
2031	1337	Known
2034	1541	Known
2020	1631	Known
2020	1804	Known
2019	2037	Known
2019	2039	Known
	2474	Known
	2488	Known
	4413	Known
	4426	Known
	4481	Known
	4485	Known
	4580	Known
	4666	Known
	6013	Known
	6154	Known
	6267	Known
	6271	Known
	6319	Known
	6476	Known
	6489	Known
	6560	Known
	6576	Known
	6688	Known
	6928	Known
	7223	Known
	7645	Known
	7714	Known
	7744	Known
	7859	Known
	7985	Known
	1280#?	Known
	1280#?	Known
	1327#1	Known
	1327#2	Known
	1410#3	Known
	1547#?	Known
	1547#?	Known
	1547#?	Known
	1961#?	Known

	1961#103	Known
	1961#104	Known
	1961#107	Known
	1961#201	Known
	1961#210	Known
	2061B	Known
	4350#1	Known
	4350#3	Known
2020	1017	N/A
2020	1601	N/A
1051	3206	N/A
1057	3360	N/A
1057	3368	N/A
1065	4127	N/A
1065	4129	N/A
1065	4224	N/A
1064	4326	N/A
1064	4334	N/A
1063	4337	N/A
1121	4489	N/A
1121	4564	N/A
Not in inv	4599	N/A
1106	5231	N/A
1106	5310	N/A
1106	5328	N/A
1070	6039	N/A
1116	6564	N/A
1079	7061	N/A
2031	1410A	N/A
2031	1410C	N/A
Not in inv	1616#2	N/A
2017	2091A	N/A
2017	2091B	N/A
2017	2474A	N/A
1068	5130#2	N/A
1068	5130#5	N/A
1070	6138A	N/A
1076	7223B	N/A
1076	7334B	N/A
2037	574	No acronym
2036	711	No acronym
2036	717	No acronym
2034	1031	No acronym

2027	1243	No acronym
2027	1259	No acronym
2027	1261	No acronym
2027	1314	No acronym
2027	1318	No acronym
2031	1341	No acronym
2030	1409	No acronym
2031	1410	No acronym
2027	1882	No acronym
2027	1892	No acronym
2019	2015	No acronym
2019	2031	No acronym
2019	2046	No acronym
2038	2131	No acronym
2023	2177	No acronym
2022	2201	No acronym
2023	2406	No acronym
2023	2436	No acronym
1051	3022	No acronym
1057	3231	No acronym
1064	4211	No acronym
1063	4311	No acronym
1063	4315	No acronym
1064	4324	No acronym
1065	4424	No acronym
1063	4426	No acronym
1065	4656	No acronym
1071	6087	No acronym
1070	6130	No acronym
1071	6178	No acronym
1071	6184	No acronym
1103	6339	No acronym
1103	6408	No acronym
1076	7217	No acronym
1076	7227	No acronym
1141	7593	No acronym
1119	7609	No acronym
1102	7783	No acronym
1059	12351	No acronym
1072	1280#22	No acronym
2026	1280#7	No acronym
2030	1411#3	No acronym
2031	1414#2	No acronym

2031	1414#4	No acronym
2031	1414#5	No acronym
Not in inv	4350#4	No acronym
Not in inv	1227	Refusal
1057	3123	Refusal
1121	4590	Refusal
Not in inv	4928	Refusal
1070	6138	Refusal
1070	6371	Refusal
1116	6586	Refusal
1087	7431	Refusal
2026	1849#221	Refusal
2026	1849#223A	Refusal
2025	1961#113	Refusal
1068	5130#6	Refusal
1085	6395B	Refusal