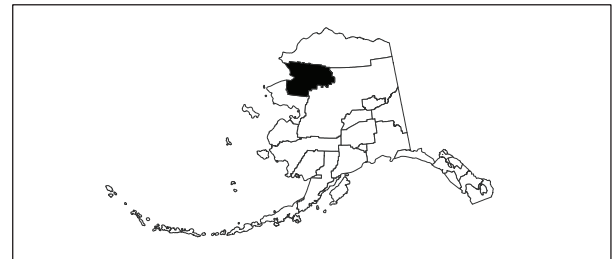


A look at an economy in the remote North

The Arctic Circle runs right through the Northwest Arctic Borough, which is in northwest Alaska and is about the size of Indiana. The borough stretches across 35,989 square miles of land and 4,864 square miles of water. It is bordered on the north by the North Slope Borough and on part of the west by the Chukchi Sea.

The Northwest Arctic Borough is made up of 11 communities including Kotzebue, its regional hub and borough seat of government. The borough was formed in 1986 when its population was 5,400. (See Exhibit 1.) It has since grown to 7,400 in 2008, but the density is still less than one person for every four square miles.

The borough was formed along the same boundaries as the land owned by the NANA



Regional Corporation, one of the state's 13 Native regional corporations created under the Alaska Native Claims Settlement Act of 1971. The borough's 11 villages formed village corporations under ANCSA as well.

The borough's residents are primarily Inupiat Eskimo. Northwest Alaska has been inhabited by their ancestors and the ancestors of other indigenous groups for more than 10,000 years. Some of the communities in the borough started as hunting camps or winter villages and have been inhabited for generations. Others developed around churches, points of trade, schools or mining camps.

The borough's communities are not connected by roads. Instead, people travel mostly by plane – Kotzebue, for instance, gets daily jet service from Anchorage. Small propeller-driven planes serve the area villages outside of Kotzebue.

Other popular modes of travel are by snow machine, four-wheeler and dog sled. There are cars and trucks, most of which are in Kotzebue. In winter months, vehicles travel on ice roads between communities. Ice roads are paths over the frozen rivers and sloughs scraped free of snow wide enough for vehicles to travel upon. In the warmer months small boats are used to travel between communities along the rivers.

Government, health care and mining, in that order, are the borough's biggest industries as

1 Borough Communities are Growing Population and enrollment, 2000 and 2008

Area Name	Year of Incorporation	Population		K-12 School Enrollment 2008-2009
		Estimate 2008	Census 2000	
Northwest Arctic Borough	1986	7,407	7,208	1,862
Ambler	1971	259	309	57
Buckland	1966	458	406	158
Deering	1970	133	136	29
Kiana	1964	383	388	102
Kivalina	1969	406	377	108
Kobuk	1973	109	109	35
Kotzebue	1958	3,126	3,082	701
Noatak CDP ¹		512	428	149
Noorvik	1964	642	634	198
Red Dog Mine CDP ¹		34	32	0
Selawik	1977	846	772	252
Shungnak	1967	272	256	73
Remainder of Northwest Arctic Borough		227	279	0

Notes:

All communities listed are Alaska Native Village Statistical Areas, with the exception of the Red Dog Mine Census Designated Place. A Census Designated Place is a closely settled unincorporated population center; an ANVSA is the settled area associated with each Alaska Native Village.

¹ CDP is an abbreviation for Census Designated Place.

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis Section, Demographics Unit; Alaska Department of Education and Early Development; U.S. Census Bureau

far as employment. And, like elsewhere in Alaska, particularly in the Bush, residents rely heavily on subsistence hunting and fishing as a means of supplementing these wage and salary jobs.

A young population

The 2008 median age of population in the Northwest Arctic Borough was just under 23 years old, making it the state's second-youngest borough or census area, behind only the Wade Hampton Census Area with a median age of 19.4. (The state's was 33.5 years in 2008.) Thirteen percent of the Northwest Arctic Borough's population was under 5 in 2008, compared to 8 percent statewide.

A young borough population translates to higher birthrates. The borough's birthrate in 2008 was the highest of all Alaska's boroughs and census areas at 29.1 births per 1,000 residents. In comparison, the North Slope Borough's was 27.4, and the Bethel Census Area's was 26.3; Anchorage Municipality's was 15.8.

Despite the high birthrate, the borough's recent population growth has been fairly modest. (See Exhibit 2.) Since 2000, the borough has grown less than 3 percent while the state has increased by 7.5 percent.

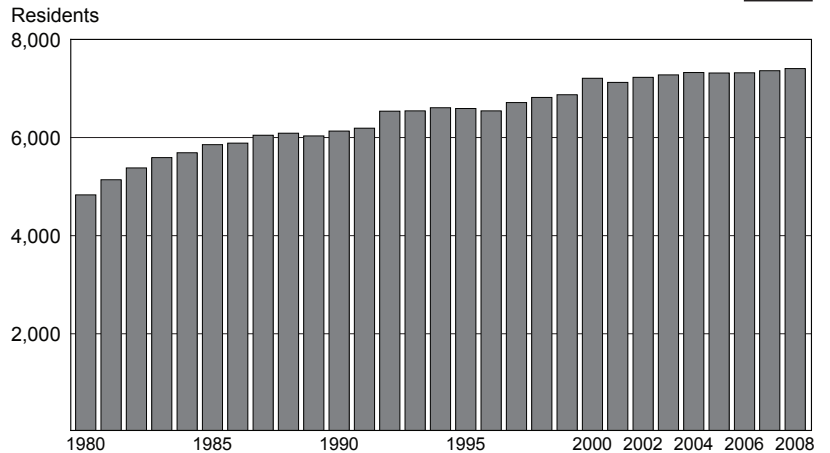
A borough apart from the state

Alaska Natives made up 82.5 percent of the Northwest Arctic Borough's population in 2000, but only 15.6 percent of the state's. Within the borough only 5 percent of the population in 2000 identified themselves as a race other than Alaska Native or white compared to 15 percent for the state. (See Exhibit 3.)

The average household size in the borough was also different from the state's. The average household size for the borough in 2000 was 3.9 people; the average size statewide was 2.7.

One big difference between the borough and the state is the relative importance of transfer payments as a portion of personal income. Transfer payments are income received for which no services are performed. It consists of

Modest Population Growth Northwest Arctic Borough, 1980 to 2008 **2**



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

payments to individuals by federal, state, and local governments. Sources of these kinds of payments include the Alaska Permanent Fund dividend – a major piece – retirement checks, Social Security checks, veterans' and Medicare benefits, family assistance and food stamps.

Transfer payments are undeniably important to Northwest Arctic Borough residents. Transfer payments, including the PFD, make up a higher percentage of the borough's personal income than the state average. (See Exhibit 4.) In 2007, transfer payments made up 32 percent of the borough's personal income compared to 16 percent for the state overall.

The lack of payroll jobs is one reason for the high percentage of transfer payments. Jobs are scarce in the borough's remote communities, making paychecks a smaller part of income than statewide. On average, in 2008, about 35 percent of the population of the Northwest Arctic Borough worked in a wage and salary job. Over that same period, close to 50 percent of the state population worked in a salaried job.

Local government a major employer

Forty percent of the Northwest Arctic Borough's employment is in government compared to 25 percent for the state. (See Exhibit 5.) Yet, 11 other boroughs and census areas in the state have higher government employment percentages than the borough.

3 Census Profile of Residents Northwest Arctic Borough and Alaska, 2000

	2000 Census	
	Northwest Arctic Borough	Alaska
Age		
Median age	24	32
Under 5 years	10.7%	7.6%
18 years and over	58.5%	69.6%
65 years and over	5.0%	5.7%
Race and Ethnicity		
White	12.3%	69.3%
Black or African American	0.2%	3.5%
American Indian and Alaska Native	82.5%	15.6%
Asian	0.9%	4.0%
Native Hawaiian and Other Pacific Islander	0.1%	0.5%
Other	0.4%	1.6%
Two or more races	3.7%	5.4%
Hispanic (of any race)	0.8%	4.1%
Gender		
Female	46.6%	48.3%
Male	53.4%	51.7%
Born in Alaska		
Percentage of population born in Alaska	85.8%	38.1%
Residence		
Percentage of population who lived in the same house in 2000 as in 1995	60.2%	46.2%
Educational Attainment		
Less than 9th grade	14.4%	4.1%
9th to 12th grade, no diploma	13.6%	7.5%
High school graduate	40.4%	27.9%
Some college, without degree	15.9%	28.6%
Associate degree		
Bachelor's degree	8.0%	16.1%
Graduate or professional degree	4.7%	8.6%
Income		
Families below poverty level	15.0%	6.7%
Median household income	\$45,976	\$51,571
Home Heating Fuel		
Fuel oil, kerosene and other	88.9%	35.8%
Wood	6.3%	3.7%

Source: U.S. Census Bureau, Census 2000

More than a third of all payroll employment – 1,000-plus jobs – is local government related. Most of these jobs are public school teachers, local safety officers and various public administrative workers. The Northwest Arctic Borough School District was the largest employer in the borough in 2008.

The school district was one of a handful of employers that were on the top ten largest employers list in 2000 and 2008. (See Exhibit 6.) Only two employers, CH2M Hill (formerly VECO) and Nullagvik Hotel, didn't stay in the top 10 in 2008. Both still employ people in the borough, but their employment numbers no longer keep them in the top 10.

State and federal employment is also included in government employment, but combined they

are about one-tenth the size of local government employment. (See Exhibit 7.)

Health services and mining dominate private industry

Health care and mining are the borough's next largest industries after local government. The major employers in those industries are the Maniilaq Association and the Red Dog Mine. They are the second- and third-largest employers in the borough.

The Maniilaq Association, a nonprofit corporation that has been operating for more than 40 years, is the borough's largest private-sector employer in 2008. It is involved in health and social services, operating the 88,000-square-foot Maniilaq Health Center in Kotzebue – the primary health care facility in the borough – and 11 village health clinics in each of the borough's smaller communities and in Point Hope, just outside the borough.

Maniilaq provides a host of other services, ranging from running the Kotzebue Senior Center and arranging for home care for the elderly to teaching the Inupiat language, history and survival skills, and giving vegetable starts to residents.

The Red Dog Mine, a zinc-lead mine 82 miles north of Kotzebue, is the world's biggest producer of zinc concentrate and is the state's largest operating mine. Teck Cominco Alaska – a U.S. subsidiary of Teck Cominco Ltd., headquartered in Vancouver, Canada – has operated the open-pit mine since 1989 in partnership with NANA Corporation who owns the land. A 52-mile haul road used to transport ore concentrate from the mine to a shipping facility on the Chukchi Sea was completed a year earlier.

The mine provides hundreds of mining jobs to the borough. Many contractors, support service providers and supply vendors provide jobs in the borough in connection with the mine.

Well-paid and stable year-round jobs, such as those created by the Red Dog Mine, are in short supply in the borough, as well as in most rural areas of Alaska.

Fourth-largest employer also in the mining business

NANA Management Services, the fourth-largest employer in the borough and a subsidiary of NANA Regional Corporation, is one of the several companies tied to Red Dog that made the list of top 10 largest employers.

NANA Management Services provides camp and fuel services, drug testing and safety training security to the Red Dog Mine, as well as to mines and oil and gas companies outside the borough. NANA Management Services also provides health care, hospitality, federal contracting and tribal services to residents in the borough.

A smaller piece of the economy

Although residents of the Northwest Arctic Borough who commercially fish have decreased since the 1980s, it is still an integral piece of the economy and an important source of income. The number of permit holders has decreased from 235 in 1986 to just 130 in 2008. That is far fewer permits held than in other coastal boroughs, like Kodiak Island and Bristol Bay, where commercial fishing is so prominent.

Most borough commercial fishers participate in the salmon fisheries, either locally or elsewhere in Alaska. The Kotzebue area does have a small commercial chum salmon harvest. Fishermen also fish for crab, herring and other finfish.

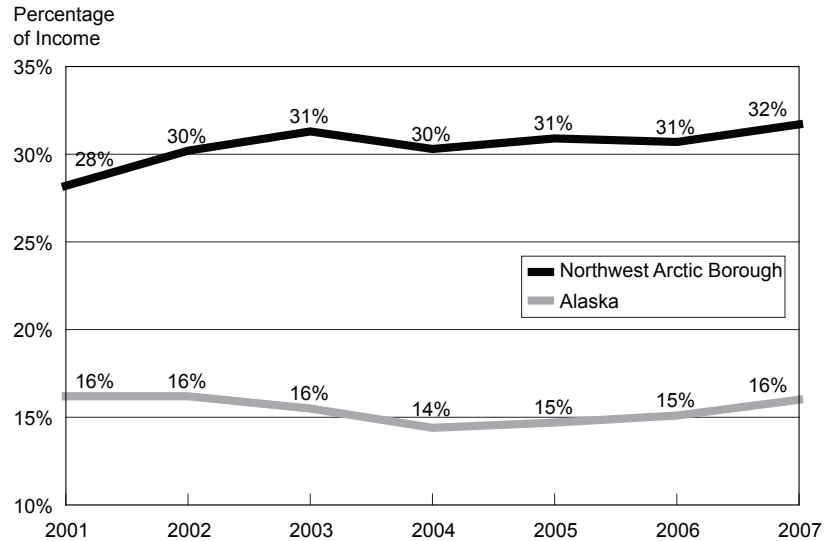
Subsistence fishing and hunting

As mentioned earlier, subsistence is an important piece of the borough's economy. Chum salmon and caribou are the most important food sources. Freshwater fish, moose, bear, and berries are also harvested.

Communities away from the coast rely heavily on caribou, birds, bird eggs and berries. Coastal communities depend more on seals and walrus. And, some communities, such as Kivalina, still hunt beluga whales as their ancestors have done for thousands of years.

Percent of Income from Transfer Payments Northwest Arctic Borough and Alaska, 2001 to 2007

4



Source: U.S. Department of Labor, Bureau of Labor Statistics

Wage and Salary Employment Northwest Arctic Borough, 2008

5

	Average Monthly Employment	Average Monthly Wages
Total Public and Private Employment	2,888	\$3,966
Construction	63	\$6,896
Trade, Transportation and Warehousing	304	\$3,043
Retail Trade	161	\$1,650
Food and Beverages	17	\$1,074
General Merchandise	127	\$1,693
Transportation and Warehousing	121	\$4,453
Air Transportation	96	\$4,452
Information	55	\$4,827
Financial Activities	135	\$3,420
Leisure and Hospitality	174	\$2,706
Other Services	44	\$1,282
Government	1,156	\$2,627
Federal Government ¹	47	\$4,226
State Government ²	69	\$4,872
Local Government ³	1,040	\$2,406

¹ Excludes the uniformed military

² Includes the University of Alaska

³ Includes the public school system

Sources: Alaska Department of Labor and Workforce Development, Research and Analysis; U.S. Department of Labor, Bureau of Labor Statistics

Subsistence helps offset the high cost of living in the borough. A McDowell Group study released in April 2009 found that the Arctic region was 48 percent more expensive to live in than Anchorage. Kotzebue was 61 percent more expensive. (The study does not take into account the money saved from living a subsistence lifestyle.)¹

¹ Alaska Geographic Differential Study 2008, McDowell Group

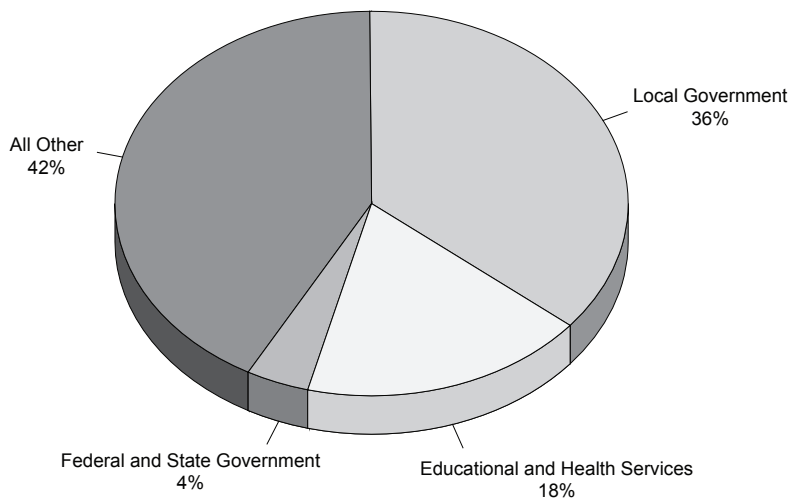
6 School District is Still the Largest Employer Top 10 private and government employers, 2008 versus 2000

2008			2000		
		Average Monthly Employment ¹			Average Monthly Employment ¹
1	Northwest Arctic Borough School District	500-999	1	Northwest Arctic Borough School District	477
2	Maniilaq Association	500-999	2	Teck Cominco Alaska (Red Dog Mine)	459
3	Teck Cominco Alaska (Red Dog Mine)	250-499	3	Maniilaq Association	446
4	NANA Management Services	50-99	4	Kikiktagruk Inupiat Corporation	72
5	Kikiktagruk Inupiat Corporation	50-99	5	City of Kotzebue	66
6	City of Kotzebue	50-99	6	NANA/Lynden Logisitics	59
7	Alaska Commercial Company	50-99	7	VECO (now CH2MHill)	53
8	Noatak Lions Club	50-99	8	Nullagvik Hotel	50
9	Northwest Inupiat Housing Authority	20-49	9	Northwest Inupiat Housing Authority	44
10	OTZ Telephone Cooperative	20-49	10	Alaska Commercial Company	43

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Heating oil and gasoline are delivered by barge during the ice free months of summer and are stored in large storage tanks until sold. If fuel runs out before the fuel barges return the following year, it then has to be delivered by plane. Due to its northern location, Kotzebue's shipping season for barge traffic is a short 100-day period typically from early July until early October.

7 Local Government a Major Employer Borough employment by industry, 2008



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

As transportation and fuel costs increase, wind power is gaining popularity as a way for communities to reduce their dependence on diesel-powered generators. The Kotzebue Electric Association has installed 17 wind turbines, drastically reducing its diesel consumption.

Planes are vital

Planes are vital to life in the borough. Commercial jet aircraft, as mentioned earlier, fly to and from Kotzebue's state owned airport each day delivering passengers, freight, groceries and mail. Smaller air taxis and charter planes fly to the borough's outlying locations and communities delivering goods and services and transporting people. Planes are particularly essential for emergency medical evacuations.

Staying warm

While subsistence helps with high food costs, it does not help with one of largest costs of living in the Arctic – high energy prices. The long, cold winters – temperatures often get to -30 degrees – require a lot of fuel oil. Transporting fuel oil such long distances accounts for most of the difference in the cost of living between the borough and Anchorage. In Kotzebue in February 2009, residential heating fuel was \$6.35 a gallon and gasoline was \$7.25.

Still a high cost place to live

Fossil fuel alternatives, like large wind turbines, should make energy in the borough relatively more affordable and decrease heating costs. However, transportation of cargo and passengers to this far north corner of the state will not get any cheaper. Yet, despite the costliness of life in the Northwest Arctic Borough, people will continue to make it their home as they have for thousands of years and businesses will continue to operate there to serve them.