

23.1 COMPARATIVE STATISTICS FOR THE CIRCUMPOLAR REGION

The circumpolar region is increasingly becoming an area of interest to the rest of world. In fields such as research, trade, tourism and the exploitation of natural resources, attention is increasingly being focused on these, the most northerly areas of the world, and interest in their unexploited potentials continues to grow. However, the interest and the accompanying need for information expressed by the population living in these often cold and inclement areas of the Northern Hemisphere are just as great. With the modern means of communication, the great distances and the climate are no longer the barriers they used to be when the question of contact and the exchange of information between the small communities in the Arctic arise.

23.1.1 Geography and Population

The statistics presented in this chapter encompass the areas populated by the Inuit communities. As seen in Key Table 23.1 these relatively small communities live dispersed across enormous areas of land. The region discussed in this survey thus covers a total area of 7,000,000 sq. kilometres, which is an area 13 times larger than France, for example. The Inuit belong to the few indigenous peoples living so far north. Other peoples in the Arctic are, for example, the Dene Indians in Canada, the Chukchi in Chukotka (where the Inuit call themselves Jupiget meaning »real people«), and the Aleutians and North-American Indians in Alaska. Greenland and that region of the Canadian Northwest Territories, which in 1999 became the independent province Nunavut, are characterized by having an indigenous population of Inuit only (see Key Table 23.1). Chukotka has the lowest share of Inuit, who constitute only 11 per cent of the population. Out of the total number of inhabitants, Nunavik, Greenland and Nunavut are the areas having the highest share of Inuit (85 - 87 per cent). Chukotka, Alaska and Labrador are characterized by having a population in which the Inuit constitute only a small percentage (less than ten per cent) of the whole population.

23.1.2 Economy

According to the classifications of the World Bank, all these regions belong to high-income economies, with the exception of Russia (Chukotka), which be-

longs to the middle-income group. Although the various regions are characterized by high incomes per inhabitant, this common factor covers considerable differences in economic structure, distribution of income, resource and financial dependency. Some areas generate high incomes from mining and the exploitation of oil and gas, for example the Northwest Territories (Canada) and Alaska (the USA), while others depend on marine resources, for example Greenland and Newfoundland/Labrador, where fishing is the all-important source of income. Most of these economies receive block grants and other supportive transfers from the central governments ranging from 50 to 90 per cent of their GNPs, for example Greenland and the Northwest Territories. This contributes to the relatively high standard of living in these areas while also stabilising their vulnerable economies based on natural resources. In all these areas, a considerable number of the adult population still has a traditional lifestyle as hunters, both for commercial and subsistence purposes.

Russia, and especially Siberia, has been hit by the general economic crisis following the transition from plan to market economy initiated after the collapse of the Soviet Union. Thus, the Russian industrial production has dropped by almost 50 per cent since 1989. It is generally assumed that the indigenous peoples are the most vulnerable groups in this economic transition, and the Jupiget people in Chukotka are thus an especially vulnerable population.

23.1.3 Status of Health

Although most of the populations in the circumpolar region live in high-income economies, the state of health of the indigenous peoples is relatively poor. If mean life expectancy is used as a general health indicator, the populations in developing countries like China (69 years), Brazil (66 years), and Thailand (69 years) have achieved a better state of health than the indigenous peoples in the Arctic, despite the fact that these countries have a less developed economy. If a comparison is drawn between the mean life expectancy of the populations of these states, which is done by applying the comparative health indicator, »the LEB ratio« (see Key Table 23.1 for further explanation), it is found that the state of health of the populations of the nation-states is much better than that of the indigenous peoples in the northern regions. For example, a newborn Greenlander may ex-

Key Table 23.1 Area, population, economic and health indicators for the circumpolar region

	Area (sq. km)	Total population	Mean life expectancy for both sexes (LEB)	LEB ratio ⁴⁾	GNP per inhabitants ¹²⁾ (US dollars) 1995	Number of indigen inhabitants (inuit and others)
Greenland	2,175,600	55,863	64.1 ¹⁾	0.85 ⁵⁾	22,618 ²⁾	48,679 ^{8) 19)}
NWT, Canada	3,366,429	57,649 ¹¹⁾	73.6 ²⁾	0.94 ²⁾	25,715	34,585 ⁶⁾
<i>Of these Nunavut</i>	<i>2,121,102</i>	<i>21,224 ⁹⁾</i>	<i>68.3 ³⁾</i>	<i>0.88 ⁶⁾</i>	...	<i>18,147 ⁹⁾</i>
Québec, Canada	1,540,000	6,896,000 ⁶⁾	77.9 ²⁾	0.99 ²⁾	18,211	61,486 ⁶⁾
<i>Of these Nunavik</i>	<i>499,860</i>	<i>7,802</i>	<i>65.0</i>	<i>0.84 ⁷⁾</i>
Newfoundland, Canada	383,300	658,474 ⁶⁾	76.7 ²⁾	0.98	13,204	5,340 ⁶⁾
<i>Of these Labrador</i>	<i>290,079</i>	<i>30,375 ⁹⁾</i>	<i>3,810 ⁶⁾</i>
Tjukotka, Rusland	721,500	157,500 ¹⁸⁾	64.8 ¹⁰⁾	...	2,458 ¹⁷⁾	16,026 ¹⁸⁾
Alaska, USA	1,477,268	550,043 ¹³⁾	65.7 ¹⁵⁾	0.89 ¹⁶⁾	49,638 ¹³⁾	85,698 ¹⁴⁾

Notes: 1) 1989-1993. 2) 1994. 3) Mean life expectancy for Inuit in the whole of NWT (1993). No statistics for mean life expectancy in Nunavut are available. 4) LEB ratio: Shows the relative expectancy of the background population of the corresponding nation state: LEB area/LEB nation state. 1.00 thus means that the mean life expectancy is the same in the local population as = 64.1/75.2 = 0.85. 5) Mean life expectancy Denmark: 1991-1992. Average men and women. Mean life expectancy Greenland 1989-1993: Average men and women. 6) 1991 Census. 7) In Canada: 77.8 (1991). 8) In Greenland place of birth is the criterion for identity determination. 9) 1991. 10) Mean life expectancy for the whole of Russia (1993). 11) Population by Aborigine According to the 1990 US Census. 12) Mean life expectancy for all Native Americans, 1980. 13) 1980. 14) GNP per inhabitant of the whole of Russia (1995). 15) 1989. 16) 1st January 1999. Sources: Statistics Greenland; Bureau of Statistics (NWT); Northwest Territories By The Numbers 1996; Alaska Department of Labor, Juneau, Alaska. Acta Oncologica 35, 1996; Banque ten-year review 1996, Statistics Denmark/Danmarks Statistik; Historical Statistics of Newfoundland and Labrador, Newfoundland Executive Council 1994; »Russia - Collection or collapse«, Cambridge University Press 1993. »The World Competitiveness Yearbook 1996«, Switzerland 1996.; Secrétariat aux affaires autochtones du Québec; Gazette officielle du Québec.

pect to live for 64.1 years while a newborn Dane may expect a life span of 75.2 years.

The reasons for this relatively poorer state of health among the Inuit continue to be a high infant mortality and the relatively high number of deaths in the group »unnatural causes of death« such as accidents, murder, suicide etc. However, causes of death, which are related to a modern lifestyle, are increasingly influencing the length of the potential life span of the Inuit. Thus, an international study showed that the incidence of pharyngeal and bronchial cancer in Inuit was among the highest in the world. Cancer in these organs is considered to be closely related to the consumption of tobacco and alcohol, and the registered consumption of these stimulants per inhabitant has in recent decades been shown to be very high. Thus, the consumption of cigarettes per inhabitant in Greenland has reached one of the highest international levels. In Canada tobacco consumption among Inuit has also been shown to be very high, and one of the unusual characteristics was that the number of smokers was higher among women than among men.

In Russia, and hence in Chukotka, the average mortality has increased significantly since the collapse of the Soviet Union. In eastern Siberia including Chukotka, a marked increase in mortality caused by heart and respiratory diseases has been registered. Combined with an explosive increase in unnatural deaths, this has resulted in a local mortality, which is much higher than the national average for Russia. Unnatural causes of death almost quadrupled (365 per cent) from 1989 to 1994 in East Siberia. Opinions

are that some of the factors causing this registered excess mortality are the generally increased psychosocial stress level among the population as a result of the drastic changes in living conditions, the decreasing investments in the health sector due to the economic crisis, and the emigration of the specialists and other highly educated members of the workforce as a result of the marked decrease in pay and living conditions in Siberia.

23.2 COMPARISON BETWEEN GREENLAND AND THE NORTHWEST TERRITORIES 1987 - 1998

The Northwest Territories (NWT) in Canada and Greenland are very similar in many respects: As they are neighbouring regions and are both situated in the Arctic (cf. Key Table 23.1 and map), they have very similar conditions regarding climate, economic development opportunities, and population composition. In the same way, the NWT are experiencing a number of changes which culminated on 1st April 1999 with the division of the NWT into two new territories: A western territory and the eastern territory, Nunavut, which is Greenland's immediate neighbour. In the following, a comparison of the development in certain important economic indicators in the two territories, the NWT and Greenland, for the period 1987 to 1998 will be drawn.

23.2.1 Population

In 1981, Greenland had the larger population with 3,113 inhabitants more than the NWT. Due to a higher growth rate in population development in the

Key Table 23.2 Economic indicators for Greenland and the North West Territories (Canada 1986-1997)

Greenland						
	Population ¹⁾	Population growth (per cent)	Consumer price index ³⁾ 1986 = 100	Inflation (percentage increase in consumer price index)	GNP ²⁾ per inhabitant US \$	Real growth rate in GNP ³⁾ (per cent)
1987	54,129	1.0	102.9	2.90	15,860	12.4
1988	54,848	1.3	110.7	7.59	17,932	6.0
1989	55,365	0.9	115.6	4.41	17,546	1.7
1990	55,589	0.4	122.3	5.80	19,594	-9.5
1991	55,503	-0.2	127.9	4.55	18,930	-3.4
1992	55,251	-0.5	129.9	1.63	19,173	-6.5
1993	55,268	0.0	131.4	1.11	17,744	-1.3
1994	55,576	0.6	132.7	1.00	19,106	5.2
1995	55,798	0.4	134.1	1.09	22,618	3.3
1996	55,917	0.2	134.8	0.50	22,400	0.6
1997	56,024	0.2	136.0	0.89	20,381	0.5
1998	56,083	0.1	137.2	0.90

North West Territories, Canada						
	Population ⁴⁾	Population growth (per cent)	Consumer price index ⁵⁾ 1986 = 100	Inflation (percentage increase in consumer price index)	GNP ²⁾ per inhabitant US \$	Real growth rate in GNP ³⁾ (per cent)
1987	55,659	0.5	103.9	3.90	21,219	-0.3
1988	56,261	1.1	106.9	2.89	26,978	14.8
1989	57,532	2.3	111.0	3.84	28,804	0.1
1990	59,354	3.2	115.7	4.23	29,385	4.9
1991	61,304	3.3	123.2	6.48	27,863	0.7
1992	62,557	2.0	124.5	1.06	26,080	-6.7
1993	63,662	1.8	126.6	1.69	24,814	4.3
1994	64,733	1.7	128.9	1.82	24,490	1.5
1995	65,821	1.7	132.6	2.87	25,715	2.8
1996	66,450	1.0	134.7	1.58	31,909	6.6
1997	67,150	1.1	137.0	1.71	31,412	0.8
1998	67,468	0.5	138.3	0.93

Notes: 1) Mean population figure. 2) GNP in current and annual mean prices. 3) Annual change in GNP (in national currency). 4) Population estimates, 3rd quarter (1st July). 5) Yellowknife Consumer Price Index (All Items), Statistics Canada.

Sources: Statistics Greenland; Statistics Canada; Bureau of Statistics (NWT).

NWT, this difference disappeared after a few years, and per 1st July 1998 the NWT had more than 10,000 inhabitants more than Greenland (cf. Key Table 23.2). This development is reflected in the fact that the average population growth rate in the NWT has been higher than in Greenland during the whole period mentioned.

Both in Greenland and in the NWT the period has been characterized by a considerable immigration. In the NWT, this has been especially pronounced in the western part of the NWT whereas the population growth in the eastern NWT, Nunavut, has mainly

been due to the high birth rates among the predominantly Inuit population (cf. Key Table 23.1).

In Greenland, total fertility has been more or less constant since 1975, whereas the number of immigrants and emigrants has fluctuated considerably, mainly due to changes in the non-local labour force. The net effect of these movements has been decided by economic conditions, and during the mid-1980s especially, at a time when Greenland experienced an economic boom, the increase in population growth was relatively high. Since 1988, a considerable negative net-immigration among persons not born in Greenland has been registered.

23.2.2 Inflation

The rate of inflation, as expressed by the annual percentage changes in the consumer price index, has been almost identical for the two regions. During the period from 1986 to and including 1998, price levels have increased by 37 per cent in Greenland and by 38 per cent in the NWT. Over the same period of time the development in inflation has also been uniform: In both regions the 1990s have been characterized by a low inflation in contrast to the 1980s during which the rate of inflation was relatively high in both regions.

Seen in relation to Denmark, Greenland had a higher rate of inflation during the period 1983 to 1992, but from 1992 onward a lower rate of inflation has been registered in Greenland. In the NWT the relative development showed the opposite trend: Seen in relation to the general Canadian consumer price index, inflation in the NWT was generally lower than the national average. However, in recent years food prices have increased relatively more in the NWT, and in the provinces east of Ontario excise on tobacco was reduced in 1994 whereas this was not the case in the NWT.

23.2.3 Economic Growth

International comparisons of economic growth often use the GNP per inhabitant converted to the same currency (usually US dollars). However, if this measure is used uncritically as a general expression of the standard of living, it may be misleading in several respects: This measure does not offer any statement on the distribution of the incomes created by production, nor whether the value of the production remains within the region in question or is exported for external use. The GNP per inhabitant may, however, be used as a measure of the value generated in a certain area and hence of the potential wealth of this area, but the political and administrative decisions will determine the final use and distribution of the value of the production.

Furthermore, in international comparisons the differences in the rate of exchange and price levels should also be taken into consideration. During the whole of the period in question here, Greenland had a relatively smaller GNP per inhabitant than the NWT. This difference decreased for a period, but in recent years, it has again been increasing. Measured in the national currencies of the two regions, the economy of the NWT had a real growth rate of the

Key Table 23.3 Relative distribution of total public expenditure according to purpose in Greenland and selected countries. Current prices. Per cent

	Greenland 1997 ¹⁾	Denmark 1997 ²⁾	NWT (Canada) 1997 ³⁾	Iceland 1996 ⁴⁾
1 Societal and social expenditure	56.9	69.2	60.1	61.2
Education etc	15.3	13.1	19.8	13.7
Health services	10.7	8.9	16.8	17.4
Social security and welfare	22.3	43.0	8.2	24.5
Housing	4.8	1.4	13.1	⁵⁾
Culture and church affairs	3.8	2.7	2.2	5.6
2 Business Economics	17.4	8.6	22.4	16.6
Energy Supply	0.8	0.5	0.0	0.7
Fisheries, hunting and agriculture etc	2.6	0.5	⁶⁾	4.9
Industry and mineral resources	2.9	4.2	10.2	0.6
Traffic and communication	5.9	4.2	7.8	8.8
Trade and services	5.2	3.1	4.4	1.6
3 Overall Public Services	19.5	12.1	14.1	8.5
General administration	11.2	7.5	7.2	4.8
Defence and Fisheries Inspection	5.5	3.1	0.0	
Police, legal services etc	2.8	1.6	6.9	3.7
4 Other expenditure ⁷⁾	6.2	10.0	4.4	13.4
Total (1+2+3+4)	100.0	100.0	100.0	100.0

Note: Due to rounding off the sum of the figures may differ from the total.

Notes: 1) Source: Statistics Greenland: Greenland - Public Finances. 2) Source: Statistics Denmark, Statistical Yearbook 1998. 3) Source: Statistics Canada. 4) Source: Hagstofa Islands: Statistical Yearbook of Iceland 1999. 5) Included in social security and welfare. 6) Included in administration of the industry and mineral resources. 7) Expenditure not distributed by functions such as expenditure on public loans and general provisions for depreciation (consumption of fixed real capital).

GNP of 28.8 per cent compared with that of Greenland, which was 9.0 per cent during the period from 1987 to 1998, 12.4 per cent of which occurred in 1987 alone.

Both these economies depend heavily on the exploitation of natural resources, and the international development in prices for the products sold is thus an important factor in the final value assessment. While the production value in the NWT is almost totally the result of the exploitation of non-renewable resources from mining (its value constituting approx. 20 per cent of the total GNP of the NWT), the exploitation of oil, and natural gas production, the main source of income in the GNP of Greenland is prawn fishing which is a renewable resource.

In the NWT the private sector is much larger in the West NWT than in Nunavut as the dominating mining and oil/gas exploitation sectors are concentrated in the former. In contrast, subsistence economy plays an important role in Nunavut as does traditional economy in certain areas of Greenland. A study from the 1980s of the NWT economy thus shows that the estimated value of the food obtained by hunting, and not marketed, was approx. 40 million Canadian dollars (about two per cent of the GNP of the NWT). In Greenland, the estimated value of catches used for own consumption is DKK 62 million, which is almost one per cent of the Greenlandic GNP.

In both regions, new sources for the development of the economy are eagerly sought after. In Greenland, tourism is being developed while the exploration for oil and minerals has been intensified. In the NWT, activities related to mining, especially for diamonds, are being developed as is tourism.

23.3 RELATIVE DISTRIBUTION OF PUBLIC EXPENDITURE IN GREENLAND, DENMARK, THE NORTH WEST TERRITORIES IN CANADA, AND ICELAND

Key Table 23.3 shows the relative distribution of expenditure on various purposes in Greenland, Denmark, the North West Territories in Canada, and Iceland. The marked differences are due to a combination of several factors; differences in geographic and demographic conditions, in the level of expenditure (construction, wages, etc.), political priorities, economic fluctuations, and politico-organisational conditions.

The most pronounced differences are found between on the one hand Denmark and on the other the three northern economies. The difference is most pronounced concerning public expenditure in connection with economic conditions related to trade and industry. These constitute only 8.6 per cent in Denmark over against 17.4 per cent in Greenland and as much as 22.4 per cent in the North West Territories. This shows that public involvement in trade

and industry is not a distinguishing feature for Greenland, but may be found also in other northern economies. Under the geographic, demographic and climatic difficult conditions in which the economy is often dominated by a single, natural resource, whose size and presence may fluctuate (the fisheries) or is uncertain (mineral resources), a certain public involvement in trade and industry seems a necessity.

Other items which are markedly higher in the northern economies than in Denmark are housing (probably due to higher expenses connected with building and construction), and traffic and communication, due to the difficult geographic conditions and – especially in the case of Greenland – a very scattered population.

It is remarkable that as far as the health services are concerned Greenland shows a higher figure (10.7 per cent) than Denmark (8.9 per cent), but it is markedly lower than the North West Territories (16.8 per cent) and Iceland (17.4 per cent).

The northern economies have markedly lower figures than Denmark in the case of social security and welfare, a category which tends to be higher in more affluent economies. It should be noted, however, that the difference in public expenditure on, for example, social affairs does not offer a clear picture of the level of social assistance, only of the extent to which this expenditure encumbers public budgets.

Map of Arctic region (no precise borders)

