

2010

Nunavut Economic Outlook



Nunavut Economic Forum

2010 NUNAVUT ECONOMIC OUTLOOK

NUNAVUT'S SECOND CHANCE

by Impact Economics
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About the Nunavut Economic Forum

The Nunavut Economic Forum is a broad group of member organisations which was developed to identify and share information on economic development activity in Nunavut. The primary focus for the organisation is to bring the members together to collaborate in the implementation of The Nunavut Economic Development Strategy, each within their own area of activity and expertise. Successful implementation of the Strategy depends on the actions of each of the stakeholders. Participation and collaboration are key components of progress.

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EXECUTIVE SUMMARY

The Nunavut Economic Forum is committed to the pursuit of sustainable economic growth and a high quality of life for all Nunavummiut. The 2010 Nunavut Economic Outlook is a valuable contribution to this commitment by assessing the Territory's progress on its socio-economic goals and can be used as a tool to evaluate the actions and strategies of all those with a role in supporting and improving the lives of Nunavummiut.

Only two years after the world economy entered into a devastating recession, it seems increasingly certain that Nunavut is returning to a path that will lead to strong economic growth. Many Nunavummiut will benefit from this change. Some will be made very wealthy, but more noticeable will be the emergence of a larger Inuit middle class.

But what about Nunavummiut without the correct skills, interest or ability to participate or those living in a community untouched by economic progress?

How does the well-being of these individuals factor into Nunavut's goal of a high and sustainable quality of life?

This second chance for wide-spread economic prosperity is coming quicker than originally anticipated, so Nunavut must learn quickly from its experiences leading up to the recession. In this year's Outlook, we have looked at how Nunavut has used the economic downtime to better prepare for the impacts and benefits from future economic growth.

The 2010 Nunavut Economic Outlook was commissioned by the Nunavut Economic Forum and is the fifth in the series that began in 2001. The focus of these reports has been on the progress of Nunavummiut toward a high and sustainable quality of life. This is measured by looking at Nunavut's socio-economic and environmental performance based on its investments in wealth-generating capital. These reports are meant to serve as reference points for informed discussion by decision makers in Nunavut. Beginning with the 2005 edition, the Nunavut Economic Outlook has also provided some feedback on the implementation and progress of the Nunavut Economic Development Strategy.

The approach established for the Nunavut Economic Outlook series goes beyond conventional economic measurements in order to understand better the real and more meaningful progress of society. A framework is used that places the growth and development of people at the fore-

front of the analysis. This framework considers how society has defined its goal of a high and sustainable quality of life and develops measures and indicators that are best suited to evaluating progress toward this goal. The central component of the Nunavut Economic Outlook is an investigation of the status of Nunavut's wealth-generating capital. Some highlights from this research are presented in this summary.

Where We Stand Today

We investigate the progress of Nunavut's human capital by looking at demographic trends and developments in the areas of education, health, social well-being and income. Key findings from this analysis are as follows:

- The rate of population growth has been much lower than was anticipated in the original 2001 Outlook. The reason for the slower rate of increase is the high number of Nunavummiut migrating away from the Territory. It is interesting to see that a high proportion of these out-migrants are Inuit.
- Graduation rates climbed dramatically in the most recent school year. Should this be a permanent trend, it would mark an important shift in Nunavut's human capital outlook. The issue of how to deal with those that have dropped out of school remains however. This should be a major concern for the Territory.
- Nunavut's health status continues to lag far behind the rest of the country. Attention to public health and social conditions must intensify not only to improve health status but to support economic development in Nunavut. Accountability and quality care are the new emphases for health systems around the world. Nunavut should be no different. It will need to ensure its investments are put toward measurable targets that can be reported back to its citizens.
- The growth in personal income on a per capita basis after accounting for inflation has stagnated in recent



years, but perhaps a more pressing issue is the low median income in Nunavut which can be an indicator of a greater separation of rich and poor.

The state of physical capital is assessed through the changes in private and public capital investments. After benefiting from a rise in federal support for infrastructure for the past three years, Nunavut's public infrastructure spending will drop by 50 per cent this year. The GNs capital budget will be further constrained as a result of overspending by the Nunavut Housing Trust.

Private-sector investments are heading in the opposite direction, however. Agnico-Eagle Mines is finishing up the construction phase of its Meadowbank Gold Project and will soon turn its attention to development of the Meliadine property just outside Rankin Inlet. Newmont Mining has fast-tracked the construction of its Hope Bay Gold Project and AREVA Resources is on schedule for construction of the Kiggavik mining project later this decade.

Some interesting changes in Nunavut's organisational capital are highlighted in this year's report. Perhaps most interesting was the recent GN Report Card commissioned by the Government of Nunavut that found many Nunavummiut have been disappointed with the government's efforts to date. This document helped shape the action plan of the government's latest strategic document "Tamapta" which has emphasised education, health and community well-being over government's role in the economy. Perhaps the most valuable contribution of the GN Report Card was its survey of over 2,100 Nunavummiut. That survey has uncovered what might be described as an apparent decline in social cohesion in Nunavut communities.

In this year's Outlook, we looked at the impact of climate change on shipping through the Northwest Passage. The extent of arctic sea ice is shrinking, though it will be many years before the Arctic Ocean has an ice free summer. Nevertheless, the Northwest Passage is becoming more attractive for marine transportation, but shippers will be hesitant to schedule regular traffic until greater certainty exists in the year-to-year ice conditions. Climate change is also affecting caribou. Though there isn't consensus on all to the factors influencing the declining herds, there is little doubt that the numbers have diminished. There are many serious implications for Nunavut should hunting bans be needed for conservation reasons.

Nunavut's Recent Economic Performance

The Nunavut Economic Outlook continues to highlight the importance of the non-wage economy in contributing to the quality of life goals of Nunavummiut. However, the lack of knowledge in some areas of this economy does raise concerns that Nunavut will not be prepared should changes to the land-based economy come too quickly.

The past three or four years have been interesting ones for Nunavut's wage-based economy. After growing by 20 per cent over the two-year period from 2007 to 2008, it then suffered a loss of 10 per cent during the 2009 recession. Now in 2010, the economy is growing again and could expand by as much as 15 per cent. The greatest contributor to this economic growth has been the construction activities at the Meadowbank Gold Mine, which was not negatively impacted by the recession.

The public sector is still the largest segment of the overall economy. Its total expenditures exceed \$1 billion annually. Its share of real domestic demand exceeds 40 per cent. However, this share is dropping. One reason is that its spending levels over the past several years have been relatively flat in real terms. This trend is not expected to change soon. Another reason for the diminishing role is the relative rise of the mining industry.

Economic Outlook

The economic outlook offers a sector-by-sector analysis of the future growth of the Territory along with a brief discussion on world economic trends, Canada's fiscal position and a look at the future growth in Nunavut's population.

Highlighting our look at world trends is of course the impact of the recession on the world's GDP. Canada's performance was quite good relative to other OECD countries during this time. This has not spared the federal government from falling into a deficit position however. The deficit is important for Nunavut because of its reliance on specific-purpose transfers to fund infrastructure projects. Countering fears of a drop in these funds is the fact that Nunavut is receiving a lot of attention from the federal government because of issues such as climate change and arctic sovereignty.

The population and demographic changes anticipated in this year's Outlook have many implications for the Territory, especially for government's education, health and housing programs. While the population is not growing at a pace once thought, the persistently-high fertility rates combined with a large cohort of children currently between the ages of 0 to 15 will mean the annual number of child births will



remain above 800 for much of the forecast, while the number of people over 60 will double.

The overall economic forecast shows solid growth for the next ten years. After posting a growth of 15 per cent this year, the economy will grow by an average of 5 per cent each year for the next five years. Much of this growth comes from the developments in mining, but there are other sectors of the economy that will perform well. They offer some opportunities for diversification and are especially valuable to communities untouched by resource development.

Nunavut's economy will be shaped by the life cycles of four or five mining projects over the next ten to fifteen years. All of these projects are located in the Kivalliq or Kitikmeot region. These projects will fulfil those region's economic objectives. But without mechanisms to improve labour mobility and other barriers to employment, individuals in communities outside the geographic reach of these projects will not be able to participate. Meanwhile, the social objectives in these regions such as full employment and lowered income disparity will not be achieved unless something can be done to help those residents who have dropped out of school or for some other reason are unable or unwilling to participate.

Nunavut's construction forecast is also affected by the events in the mining sector. These construction jobs come at a crucial time when government projects are expected to decrease. The challenge is to get more Nunavummiut onto these construction sites and to develop a supporting business sector.

Nunavut's fishery has implemented its five-year comprehensive investment strategy which is paying dividends in terms of greater infrastructure, improved knowledge, trained labour, and stronger organisations. The challenge now is to find new and inventive ways to get more Nunavummiut involved in the act of fishing. More emphasis on the in-shore fishery might be the answer and several groups are now pursuing this opportunity.

Tourism and arts are small components of Nunavut's economy if measured through GDP exclusively. If one considers other measures such as the contribution to culture, diversity, community health and productivity, then these sectors can be shown to be extremely important. These two areas or sectors of Nunavut's economy should grow over the next five to ten years as both are investing in their organisational and physical capital.

Conclusions

Nunavut has a second chance for economic prosperity. Something that has come much sooner than would have been predicted in the fall of 2008. The new Outlook shows growth will be concentrated in the Kivalliq and Kitikmeot regions over the medium term. For this reason, we cannot say that all economic objectives will be met, unless Nunavut can find a way to distribute benefits to communities outside these regions.

The Outlook shows how and where the economy will grow, but it also shows where it will fall short. This year's research looked how Nunavut used the 18 to 24 months of economic downtime to understand its gaps in wealth-generating capital and developing an investment strategy to address these gaps.

In some areas, the Territory has responded constructively such as developing new health prevention and early childhood health strategies, establishing the Kivalliq Mine Training Society, and taking seriously the results from the GN Report Card. But most if not all of Nunavut's more fundamental challenges remain. For example, Nunavut still does have a good plan for how to deal with the generation of Inuit who have lost their way in the transition from a traditional Inuit way of life to one based on the culture of the wage-based economy. This is contributing to a greater separation between rich and poor in Nunavut and stands in the way of a high and sustainable quality of life.

It will be up to Nunavummiut to manage its economic opportunities such that economic objectives can be achieved without overwhelming communities; that the growing middle class can become the catalyst for greater social inclusion; and that the rising wealth can be used to lower poverty, allowing Nunavut to reach its goals.



1 NUNAVUT'S SECOND CHANCE

Key Highlights

- Only two years after the world economy entered into a devastating recession, it seems increasingly certain that Nunavut is returning to a path that will lead to strong economic growth over the medium term
- Many Nunavummiut will benefit from this change. Some will be made very wealthy, but more noticeable will be a further emergence of an Inuit middle class
- Those without the skills, interests or abilities, and those living in a community untouched by industrial development, may not participate in a high and sustainable quality of life.
- This second chance for wide-spread economic prosperity following the 2008-2009 recession will come more quickly than originally anticipated, so Nunavut must learn quickly from its experiences leading up to the recession.
- In this year's Outlook, we look at how Nunavut has used the economic downtime to better prepare for the impacts and benefits from economic growth.

In the summer of 2008, Nunavut's economy was on the verge of an economic breakthrough. Several years of growing investments in mineral exploration combined with a seemingly insatiable world demand for raw materials culminated in a broad-based push from the mining industry to access Nunavut's vast store of natural wealth. Meanwhile, \$200 million in new federal money for public housing was creating a small boom in Nunavut's construction industry. In the emerging fishery, inroads were being made in the acquisition of a greater share of the offshore quota in Nunavut's adjacent waters, large offshore vessels were being leased or purchased and a multi-million dollar training program was up and running. The support activities and organizational structures needed to manage this growth were being tested on all sides by this vibrant economy. For those engaged in the wage economy in 2008, options for employment of all descriptions were readily available.

While growth projections were still being described as tentative, it was possible to envision a Nunavut where all economic objectives were met before the end of the coming decade. Under several reasonable scenarios, gross domestic product would have doubled and perhaps tripled in size, total personal income would have soared and the supply of jobs would have far exceeded the demand. And on the back of a strong, single, unifying Land Claim Agreement, the Inuit of Nunavut were assured a prominent role in this growth through such things as Impact and Benefit Agreements,

ownership of surface and subsurface rights, and direct controls in environmental management.

But closer analysis of this situation cast light on a state of human, physical and organizational capital that would be overwhelmed by economic growth of the magnitude being projected. Previous investments aimed at improving social performance were long-term endeavors and had not yet born fruit. Nunavut society continued to lag in areas such as education, health, housing, and community infrastructure. From the perspective of development economics, there was no real widespread appreciation for the magnitude of change that would occur had one of the strong growth scenarios become reality. The potential for negative social outcomes flowing from increased income disparity, social exclusion, and culture shock were as high, yet programs to support communities coping with and adapting to the new economic realities were not well established. This contrast between current economic and social performance and what might be required in a period of rapid economic growth became a focus of the 2008 Nunavut Economic Outlook.

For the two years that followed, the pace of development slowed on the heels of a world-wide recession. Activities at three major resource projects stopped dead and others have been put on hold. One can only speculate as to what the positive and negative consequences of that economic growth would have been had these projects proceeded.



Would the widespread success in reaching economic objectives have spilled over into other aspects of Nunavut society, creating opportunities for greater social and economic inclusion, bringing new entrants into the workforce, and ultimately propelling Nunavut forward?

Or, would this new economy overwhelm communities creating great rifts in society between the haves and have-nots, resulting in greater social and economic exclusion for those unready, unwilling or unable to participate?

Whatever the outcome would have been, the recession has given Nunavummiut an opportunity to consider these possibilities, reconsider their approach to managing change, and question whether there are lessons learned from what nearly came to pass.

For instance, the Meadowbank Gold Mine, which began operations this year, has revealed the limits of the labour supply in the Kivalliq region. Initially, the mine owner expressed concern that the number of local people employed by the project fall after construction employment because of the need for higher skilled labour. This decline in local employment hasn't happened yet. An emphasis on training by the company, the Government of Nunavut and the newly-formed Kivalliq Mine Training Society has increased the chances that local participation will remain at its current level and perhaps even grow. Nevertheless, the labour situation in the Kivalliq highlights among other things some structural challenges for Nunavut's labour force. In a Territory where some communities can have unemployment

rates well in excess of 20 percent, Nunavut must address its issues of poor labour mobility and skills mismatch, and resolve the issue of a welfare trap. As a part of this year's Outlook, we investigate what has been done in direct response to this "second chance" that the recession provided.

Through the research for this year's report, it became increasingly apparent that the current pause in economic growth will not last long. The demand for resources has rebounded much quicker than anyone would have predicted in the fall of 2008. The international mining community has responded by returning to Nunavut, if not with same ferocity as in previous years, then with greater resolve and determination.

For all the controls Nunavummiut have over development on their land, they have no control over the world price of natural resources. When those prices rise, Nunavut's economy will see increased activity. Nunavut must be better prepared for when it does. Improving wealth-generating capital through existing public programs and services and better preparing Nunavummiut for participation in their own economy remain central themes of the Nunavut Economic Outlook. But with the rapid recovery in Nunavut's economic prospects, we must continue the investigation into contrasts between the economic and social performance, and look for some signs of recognition and response from Nunavummiut to the divergence in growth and the dichotomy that is becoming increasingly visible between Nunavut's rich and poor.



2 INTRODUCTION AND PURPOSE OF REPORT

Key Highlights

- The 2010 Nunavut Economic Outlook was commissioned by the Nunavut Economic Forum and is the fifth in the series that began in 2001.
- The focus of these reports has been on the progress of Nunavummiut toward a high and sustainable quality of life. This is measured by looking at Nunavut's socio-economic and environmental performance based on its investments in wealth-generating capital.
- These reports are meant to serve as reference points for informed discussion by decision makers in Nunavut.
- Beginning with the 2005 edition, the Nunavut Economic Outlook has also provided some feedback on the implementation and progress of the Nunavut Economic Development Strategy.

The 2010 Nunavut Economic Outlook is the fifth report in the series that began in 2001. The original Outlook was a collaborative effort between the Government of Nunavut, Nunavut Tunngavik Incorporated and Indian and Northern Affairs Canada, with the research conducted at that time by the Conference Board of Canada.

Beginning with the third Outlook published in 2005, the series has been managed by the Nunavut Economic Forum who commissioned the 2010 report.

Nunavut Economic Outlook offers readers a comprehensive look at socio-economic development in Nunavut. It contributes to informed debate amongst the Territory's leaders, decision makers and other stakeholders. As a series, these reports track the results of Nunavut's investments in wealth-generating capital over time. They depict the challenges and opportunities associated with Nunavut's socio-economic performance and potential. Ultimately, the Nunavut Economic Outlook provides a report on the progress of Nunavummiut toward a high and sustainable quality of life.

2.1 SIVUMMUT AND THE NUNAVUT ECONOMIC DEVELOPMENT STRATEGY

In 2003, Nunavummiut gathered in Rankin Inlet to continue what Inuit call "Sivummut"; a process for establishing a strategy for moving forward on socio-economic development. Sivummut I had taken place in Rankin Inlet in 1994 shortly after the signing of the Nunavut Land Claims Agreement. During the 2003 gathering, discussions spanned many topics, including how Nunavummiut would move forward on

issues involving the Land, its People, its Communities and its Economy. These discussions were later transcribed into the Nunavut Economic Development Strategy (NEDS).

The NEDS is a comprehensive, modern and open approach to development. Subtitled "Building the Foundation for Our Future", it takes a broad view of economic development by making those four areas identified at Sivummut (the land, people and communities in addition to more common economic concerns) the cornerstones of the Strategy. The framework established in the Outlook series identifies a high and sustainable quality of life as the goal for Nunavut society. This goal is achieved by more than just improved income and material wealth, but also by improved health status, education levels, cultural identity, civic engagement and by social, political and economic freedoms. The Strategy has a ten-year time horizon and its recommendations established a new path of cooperation and coordination for organisations throughout Nunavut to work together in achieving success.

The end of the 10-year timeframe is nearing and discussions are underway regarding what comes next. Underpinning these discussions is the real progress of Nunavummiut and their expectations for the future. This Outlook serves as an important input into these discussions.





3 GENERAL APPROACH AND METHODOLOGY

Key Highlights

- The approach established for the Nunavut Economic Outlook series goes beyond conventional economic measurements in order to better understand the real and more meaningful progress of society.
- A framework is used that places the growth and development of people at the forefront of the analysis.
- This framework considers how society has defined its goal of a high and sustainable quality of life and develops measures and indicators that are best suited to evaluating progress toward this goal.
- The central component of the Nunavut Economic Outlook is an investigation of the status of Nunavut's wealth-generating capital.

The Nunavut Economic Outlook is a comprehensive examination of the socio-economic and environmental performance and potential of Nunavut and Nunavummiut. It has established a Framework for Understanding Economic Development that was adapted from the United Nations' Framework for Developing Economies.¹ This Framework is focused on the growth and development of society with the idea that one must look beyond conventional economic statistics to understand this progress in a meaningful way.

So, rather than reporting gross domestic product as the most meaningful indicator of success, it looks at how a society defines its high and sustainable quality of life and establishes that as the ultimate goal. Suitable measures and indicators are then established, analysed and discussed.

What is a 'High and Sustainable Quality of Life' for Nunavummiut? Who decides?

What constitutes a high and sustainable quality of life depends on how a society chooses to define it. Some elements such as basic economic, social and environmental objectives are common across most societies. What differentiates one group from another is how each chooses to weigh the importance of these elements and what trade-offs between them will be considered acceptable.

Written statements by elected officials and other public leaders can clarify a society's definition of a high and sustainable quality of life. These often take the form of vision and mission statements. In Nunavut, the most recent clarification can be found in the Government of Nunavut's strategic document, *Tamapta* (see Exhibit 3-1).²

Exhibit 3-1

Tamapta: Building our future together

The Government of Nunavut's vision for the Territory is given as this:

Guided by Inuit values and culture, by the year 2030:

- Nunavummiut will continue to have a highly valued quality of life and a much better standard of living for those most in need.
- Individuals and families will all be active, healthy and happy.
- Communities will be self-reliant, based on Inuit societal values, with reduced dependence on government.
- Nunavut will be recognized for our unique culture, our ability to help one another, and for our useful contributions to Canadian and global issues.

The mission statements that follow include:

- Affordable, healthy food, safe water, and a home
- Safety
- A sense of belonging and purpose
- Family support and friendship
- Education and opportunities to learn
- Communication in our preferred language
- Personal responsibility
- Pride in our culture, our languages, and in who we are
- Stewardship of our environment and wildlife
- Access to the land for personal growth and sustenance
- Opportunities for fun, recreation and cultural activities

One cannot help but notice that the current vision and mission statements from the government are focused on social (including cultural) and environmental objectives. The term



economic growth is not present in the document at all except for a single reference to “community-based, sustainable economies.” It would be wrong to conclude that economic growth is of no interest in Nunavut, but rather it shows a discernable difference in how Nunavummiut define what is important to their quality of life from what one might find in other parts of the country where economic objectives would receive greater attention. It reflects the current socio-economic conditions in Nunavut, where there is great potential for large-scale economic growth, but similar opportunities for social objectives are not so readily apparent (see Exhibit 3-2 for a list of common objectives).

It might also be a reflection of the fact that much of Nunavut’s economic growth is exogenous to the actions and spending patterns of the government. It could be argued that the economic growth opportunities in Nunavut are dependent on foreign investment (whether that foreign interest be the federal government or international investors). Certainly, Nunavut can affect the manner in which growth occurs and has a huge role in influencing the consequences

of that growth through the Land Claim Agreement and the policies of the government. But from the perspective that much of the growth is exogenous, government’s response should be to concentrate on things it does have some control over.

Exhibit 3-2

Common Economic, Social and Environmental Objectives

Economic

- Growth, Efficiency, Stability, Fairness

Social

- Full employment, Equity, Security, Education, Health, Cultural Identity, Participation, Inclusion

Environmental

- Healthy living conditions, Rational use of natural resources, Sound Management, Appropriate evaluation of resources

Exhibit 3-3

Why not set Gross Domestic Product as Society’s Ultimate Goal?

At one time, it was understood that increasing production was society’s ultimate goal. Thus, gross domestic product (GDP) became the most common indicator used to measure not only economic progress but progress of society, itself. The assumption was that rising GDP equates to rising welfare, which has the added benefit of improving our ability to solve social challenges such as poverty. These assumptions led decision makers to develop clear investment strategies aimed at raising production, theorising that other objectives would resolve themselves naturally through this growth.

However, over time we have come to learn that these assumptions do not necessarily hold, especially in the case of developing economies. “History offers a number of examples where economic growth ... was achieved at the cost of greater inequality, higher unemployment, weakened democracy, or a loss of cultural identity.”* Also, as an indicator of progress, GDP does not tell a complete story. It does not describe how economic growth affects people at a local level. It hides discrepancies in well-being within a population and disparities between communities, families and individuals. We can see this in Nunavut where the average income for Nunavummiut is similar to the Canadian average, yet its median income is the lowest in Canada.

Growth of society has since become understood as a far more complex challenge. It still requires an advancing economy, but is also a function of social progress, productivity, education, health, inclusion, equity, security, culture, sustainability and more. This makes the tasks of leaders and decision makers more difficult since investment strategies now must take into consideration the interplay of all these variables.

It still holds that long-term growth in GDP for a nation is a function of how and where society invests and distributes wealth. However, observing this correlation in Nunavut is difficult because of the nature of its small economy where GDP moves dramatically as a result of a single major project such as the start up or closure of a mine regardless of how many local people are employed there. Any change will be reflected in the final GDP figure inclusive of the effect of all other investment choices of Nunavummiut.

To understand the impact of changes in GDP, one must incorporate additional measures to determine more specifically how people are fairing given any increase or decrease in GDP.

* Tanyana P. Soubbotina, *Beyond Economic Growth, 2nd Edition*, The World Bank, World Bank Press (June, 2004).



One way to understand how a society defines its ultimate goal is to observe the choices it makes, while also learning more about the current stage of development, the distribution of income (mean and median), and the average standard of living. For Nunavummiut, the importance of Inuit values and culture, the protection of the environment, and the health of families and communities have been made clear in written statements.³ In practice, at least initially over the past ten years, there have been clear and consistent actions taken to create a stronger economy, offering jobs and income and the opportunity to raise the standard of living. As the United Nations notes “human development is the end—economic growth is a means to this end.”⁴

Participation in economic activities is essential for Nunavummiut to reach their ultimate goal—this is true for both the wage- and land-based economies. This participation has been constrained by a lack of capacity from within the labour supply and the business community. For Nunavut to reach its full potential this issue of capacity, with all its complexities, must be addressed.

Moving forward, how Nunavummiut manage economic growth in the face of its challenges, the approach of its economic policies, and the extent to which people pursue wage-based jobs will be the indicators of individuals’ goals and of local values. It will be of the utmost importance that policy makers capture any shift in values that occur in order that they make good decisions on behalf of the next generation. One can look to such things as demographic change to anticipate what might happen in the future.

If a shift in values with more and more emphasis placed on the wage economy over time can be implied, what does this mean for economic policy choices today? What does it imply for social and environmental objectives? A consistent theme throughout the Outlook series has been this issue of finding the right balance in terms of development. If we believe that growth of the economy will outpace that of other areas and that interest in participation from the local population will also grow—perhaps at a rate beyond its capacity—then the importance of improving human capital and investing in what are largely social areas related to education, health, housing and community productivity become that much more important. This helps to explain the focus given to social and environmental objectives in *Tamapta*, and gives credibility to the definition of a high and sustainable quality of life in Nunavut.

The Framework for Economic Development in Nunavut

The approach adopted for the Nunavut Economic Outlook takes this broad view of economic development. But in doing so, it does create challenges associated with monitoring and evaluating progress. Evaluating changes in quality of life is complex. Non-economic measures and indicators are less quantitative than typical economic data and are rarely available on a yearly basis.

Our solution has been to evaluate the growth in those things that help a society become wealthier, where wealth is defined not only by financial gains and progress in material well-being, but also through measures of social and family cohesion, the safety of communities, and the productivity and civic engagement of citizens.

Those *things* that result in wealth generation are called *wealth-generating capital*—but are often referred to more simply as society’s assets.⁵ As these assets accumulate or improve, the opportunity for society to become wealthier also improves and thus we might expect society is moving closer to its ultimate goal. For clarity, wealth-generating capital is separated into four categories.

Economic or Physical Capital: This includes the structural and mechanical requirements of business and industry, such as transportation and communication systems, power generation, and commercial space. Physical capital can also serve to enhance social performance through safe and adequate housing, schools, and hospitals.⁶ Financial resources are also a part of economic or physical capital; that is, the access to financial resources required for investing.

Human capital: Human capital is often spoken of in the context of the stock of human labour, more specifically, the quality of the labour force for the wage economy. But in its truest sense human capital is much broader. Human capital is the overall capacity—in terms of health, knowledge, education, and skills—of the members of a community to be *productive*.⁷ Public programming for education, health and social needs are perhaps the most common investments in this area.

Social or Organisational capital: This encompasses the business and social environment within which economic activity takes place and explains how a society is organised to create wealth including the systems of governance and regulations. Within social capital is the concept of *social cohesion* that deals with the willingness of individuals to co-operate and work together at all levels of society in pursuit of collective



goals.⁸ It is often summarised as the level of trust between individuals, families and organisations. Potential measures of social cohesion include voter turnout, crime levels, volunteerism, public participation in debate, and attitudes towards diversity. Social inclusion is another concept that falls within social capital and is also difficult to measure. It deals with the level and extent to which a society embraces all its members and develops policies and programs that promote greater inclusion in economic and social activities.

Natural capital: This includes the raw materials incorporated by economic activity, such as land, wildlife, minerals, energy, as well as the services provided by the environment such as clean water, air and soil required for healthy living, the healing effects of natural beauty and its promotion of human well-being, and the temporary storage of waste.⁹ Investments directed toward environmental preservation fall under this category as do investments that enhance our understanding of natural capital such as geoscience or fisheries science.

As illustrated in Exhibit 3-4, investment in each form of wealth-generating assets can influence one, two or all three areas where we are measuring performance against society's goals.

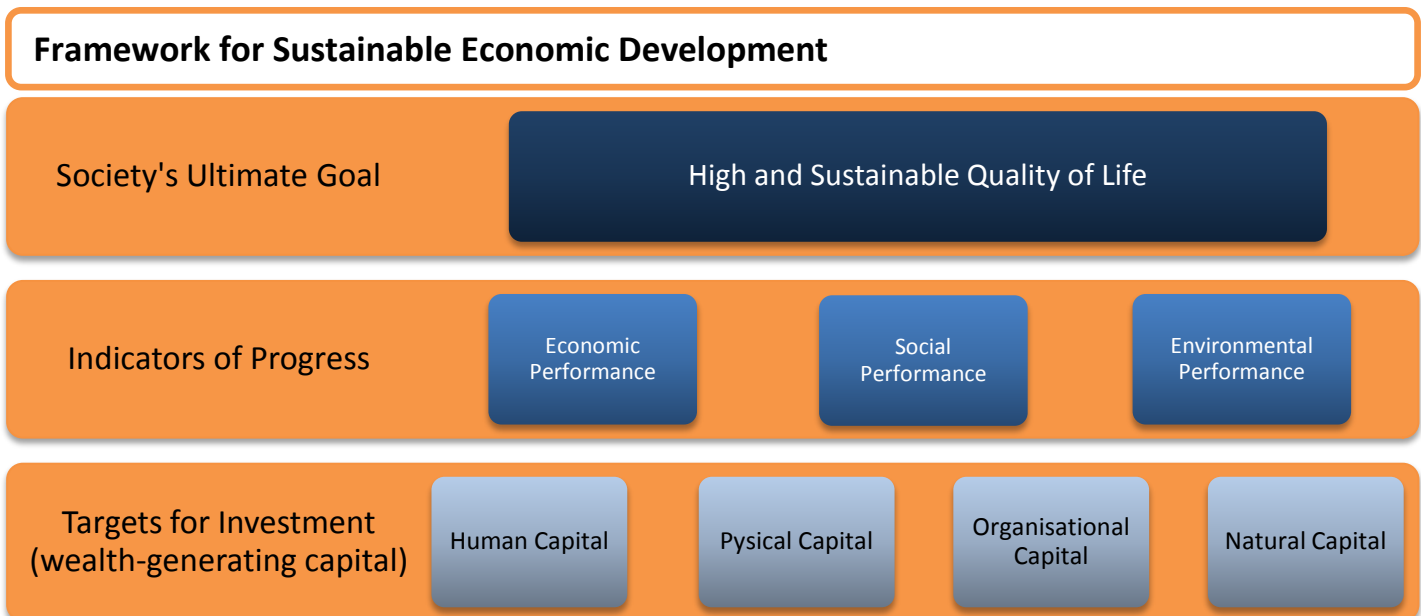
The 2010 Nunavut Economic Outlook is an investigation into the status of these four forms of wealth-generating capital

and how economic, social and environmental changes are impacting Nunavummiut. Its purpose is to determine on an on-going basis whether Nunavummiut are moving in the right direction with respect to their ultimate goal. The analysis contained in this report is meant as a reference point for discussion by stakeholders when making decisions.

The information to be incorporated in this Outlook includes (but is not limited to) the following sources:

- National and territorial socio-economic databases including Statistics Canada and any updates from Nunavut's Bureau of Statistics;
- Social statistics producers such as the Canadian Institute for Health Information;
- Recent industry publications and reports;
- Key government/public reports both territorial and federal;
- The Nunavut Demographic Model developed by Impact Economics;
- Various international organisations such as the World Bank, International Monetary Fund, and the Organisation for Economic Cooperation and Development;
- Discussions with members of the Nunavut Economic Forum; and,
- Interviews and discussions with other knowledge holders in Nunavut.

Exhibit 3-4





4 WHERE WE STAND TODAY

Key Highlights

- The rate of population growth has been much lower than was anticipated in the original 2001 Outlook, a consequence of out-migration—many of whom are Inuit.
- Graduation rates climbed dramatically in the most recent school year. Should this be a permanent trend, it would mark an important shift in Nunavut's human capital outlook.
- Nunavut's health status continues to lag far behind the rest of the country. Attention to public health and social conditions must intensify not only to improve health status but to support economic development in Nunavut.
- Accountability and quality care are the new emphases for health systems around the world. Nunavut should be no different. It will need to ensure its investments are put toward measurable targets that can be reported back to its citizens.
- The growth in personal income on a per capita basis after accounting for inflation has stagnated in recent years, but perhaps a more pressing issue is the low median income in Nunavut which can be an indicator of a greater separation of rich and poor.
- After benefiting from a rise in federal support for infrastructure for the past three years, Nunavut stands to see a 50 per cent cut in its public infrastructure spending. The GNs capital budget will be further constrained as a result of mismanagement of funds by the Nunavut Housing Trust.
- In Nunavut, government has a far greater influence in shaping the growth of society than one might find elsewhere. For Nunavummiut to achieve their ultimate goal of a high and sustainable quality of life, a well-functioning and responsive government is imperative. The recent GN Report Card has suggested that this is an area that requires immediate attention.
- In this year's Outlook, we looked at the impact of climate change on shipping through the Northwest Passage. It will be many years before the Arctic Ocean has an ice free summer. Nevertheless, the Northwest Passage is becoming more attractive for marine transportation, but shippers will be hesitant to schedule regular traffic until greater certainty exists in the year-to-year ice conditions.
- The Government of Nunavut introduced a new strategy in 2009 called Tamapta. It is a departure from past strategies in that it emphasises social and environmental objectives over economic ones.



4.1 HUMAN CAPITAL

Human capital is often thought of as the available labour, more specifically, the education, skills and aptitudes of the labour force as it relates to the wage economy. But in its truest sense human capital is much broader. Human capital is the overall capacity in terms of health, knowledge, education, and skills of people to be **productive** whether they are participating in the wage economy, active in the land-based economy, volunteering or supporting the family, or pursuing education (traditional or western) or training opportunities. Without sufficient levels of human capital, productive activities cannot be performed thereby reducing a society's chance of achieving a high and sustainable quality of life.¹⁰ A study by Statistics Canada looking at 14 industrialised countries found that investing in human capital, such as education and skills training, "is three times as important to economic growth over the long run than investing in physical capital."¹¹

An important aspect to the study of human capital is the ability of people to cope with and adapt to change; that is, an assessment of a society's vulnerability to change. Vulnerability is an issue that spans all four forms of capital. For instance, a community's infrastructure can be vulnerable to the effects of climate change. Similarly, a community's organisational capital, in particular, its social cohesion can be vulnerable to the effects of rapid industrial development. Over the next ten years, Nunavut's human capital will continue to face tremendous pressures and will have to endure considerable change. These changes include that of a rapidly expanding economy, growing social pressures from the ageing youth population, the effects of climate change, and technological pressures such as the growing access and use of the Internet. The ability of Nunavummiut to deal with and ultimately leverage the opportunities embedded in these changes is critical for Nunavut's future prosperity.

In this section, the essential components of Nunavut's human capital are studied. The purpose is to understand how and where changes have occurred since the original Nunavut Economic Outlook was written in 2001 and to assess areas where Nunavut's human capital is most vulnerable to these changes.

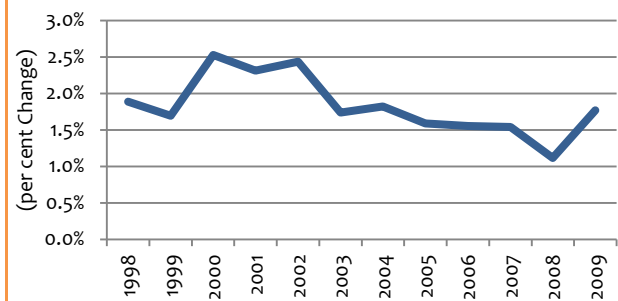
4.1.1 Demographics

Nunavut's estimated population as of July 1st, 2009 was 32,183, up 5,363 since the Territory was established in 1999.¹² This represents an average annual growth of 1.8 per cent¹³ over the past ten years. This is not the type of growth predicted ten years ago. The combination of high fertility rates

and the young population were expected to push the level we have today by 2006. Instead, a steady flow of Nunavummiut to other regions of Canada over the past five years has stymied the population's advance (see Figure 4-1).

Figure 4-1

Population Growth, Nunavut, 1999 to 2009



Source: Statistics Canada, CANSIM Tables 051-0001, 051-0052, and Special tabulations; Nunavut Bureau of Statistics.

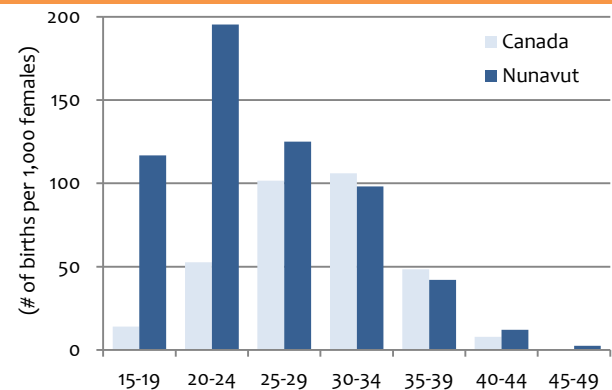
4.1.1.1 Source of Demographic Changes

There are three sources of demographic change: births, deaths, and migration. Births minus deaths equal the natural rate of population growth. Migration includes the movement of residents to and from other parts of Canada and the world.

In Nunavut, the number of births reached an all-time high in 2009 eclipsing the 800 mark for the first time with 801 babies born in the Territory. The new record is the result of fertility rates that remain substantially higher than the national average (see Figure 4-2).

Figure 4-2

Fertility Rates, Nunavut and Canada, 2007



Source: Statistics Canada, CANSIM Table 102-4505.

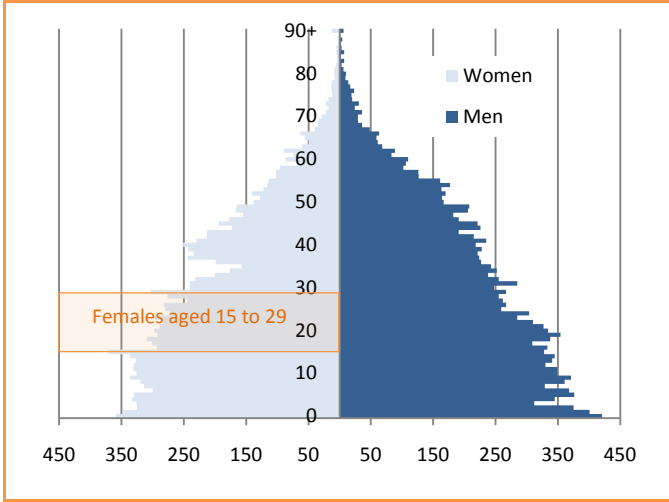


In 2007, the last year for which data is available on fertility rates, Statistics Canada calculated the number of births for every 1,000 females aged 15 to 19 at 117, 195 for females aged 20 to 24, and 125 for females aged 25 to 29. Contrast this with the average across Canada, where the teenage birth rate equals 14 per 1,000 females below the age of 20, 53 for females aged 20 to 24, and 102 for females aged 25-29. Over their lifetime, women in Nunavut will have an average of 2.96 children whereas the average for all women in Canada is 1.66.

Without an immediate reduction in fertility rates, the number of births in Nunavut will continue to grow. There are more females aged 0 to 14 than there are 15 to 29, which will ensure a growing number of females of child-bearing age for years to come. (see *Figure 4-3*).

Figure 4-3

Population Pyramid, Nunavut, 2009



Source: Statistics Canada, CANSIM Table 051-0001.

The demographic profile of a region changes slowly, however. In the past ten years, the percentage of Nunavut’s population between the age of 0 and 24 has dropped by 3 per cent, while the number of Nunavummiut aged 60 years and older has increased by 1 per cent (see *Figure 4-4*).

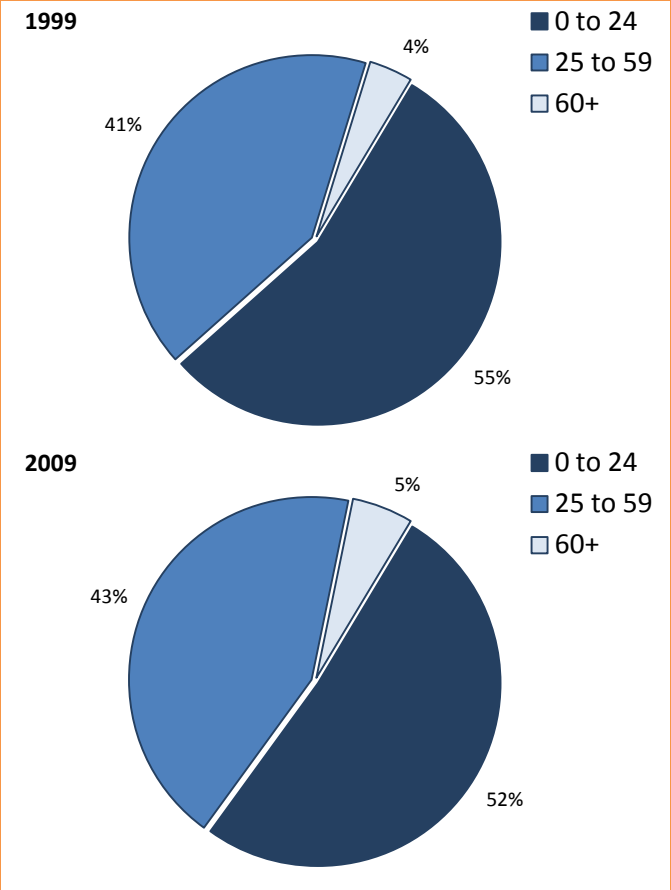
Thus, the description of Nunavut’s demography in this 2010 Nunavut Economic Outlook is very much in line with what was said in the 2001 version. That is:

- the population is very young
- the large cohort of young people entering school and then the labour force will bring new and greater pressures to Nunavut’s economy, infrastructure and public services

- this age cohort will change the social and cultural dynamics within Nunavut through their exposure to the world outside Nunavut, through schooling, and the Internet.

Figure 4-4

Changing Demography, Nunavut, 1999 and 2009



Source: Statistics Canada, CANSIM Table 051-0001.

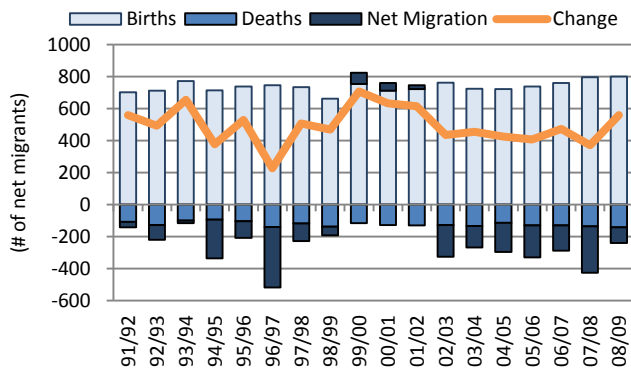
The last component of demographic change is migration. Nunavut loses people to other parts of the country almost every year (see *Figure 4-5* on the following page). There have only been three years in the past 18 where this was not the case—2000 to 2002. These years coincide with the first three years of Nunavut’s existence.

One would think that economics is the main influence for people’s decision to relocate. The period 2000 to 2002 was certainly characterised by strong economic growth. However, so was the period 2006 to 2008, when the real economy grew by almost 20 per cent. Yet the twelve-month period starting July 1, 2007 ending June 30, 2008 saw a record net outmigration of 290 people from Nunavut. If this is the



Figure 4-5

Components of Demographic Change, 1991 to 2009



Source: Statistics Canada, CANSIM Table 051-0004.

start of a worsening trend, Nunavut will have to learn more about the characteristics of the people leaving.

Loosing people through outmigration during times of economic growth is a similar experience to the one in the Northwest Territories, where the economy has had a decade of strong economic activity and yet has lost people through migration in 12 of the past 15 years. There has been some survey work in that region to understand what motivates people to relocate. That survey found that the cost of living, distance from other family members and climate play very large roles in peoples' decision to leave the North.¹⁴ In this survey, some 44.6 per cent of the mine workers responded that they are likely or very likely to consider leaving the Territory in the next year because of these and other factors.

The assumption that Canadian labour is attracted to the NWT or Nunavut because of the high wages may no longer hold. The suggestion by the survey results is that the pace of wage growth across the territories has not kept up with that of the rising cost of living. It will be important to monitor the demand for southern labour in the coming years and its affect on the northern workforce.

Has the incentive for labour to move north decreased to a point where it cannot attract needed resources?

And just as critical, are the incentives for northern workers to relocate to the south grown to the point where outmigration of qualified "home-grown" labour will become a challenge?

4.1.2 Education

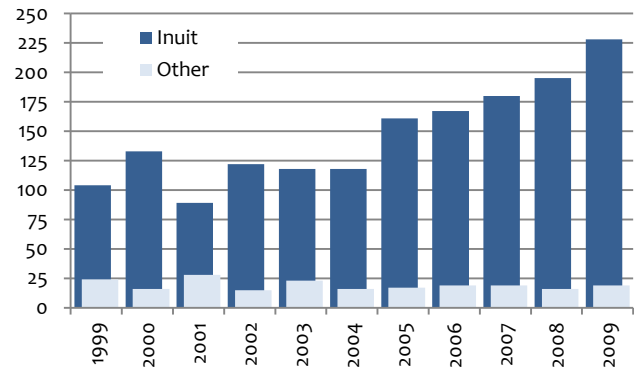
Perhaps the single greatest challenge facing Nunavut's future wealth creation is ensuring the generation of young

Nunavummiut graduate high school with an education that provides them with the necessary tools to succeed.

There have been some improvements in education over the past ten years. The number of graduates has been increasing on a consistent year-over-year basis (see Figure 4-6). The trend made a noticeable change starting in 2005 and has continued since then.

Figure 4-6

Number of Graduates, by ethnicity, 1999 to 2009

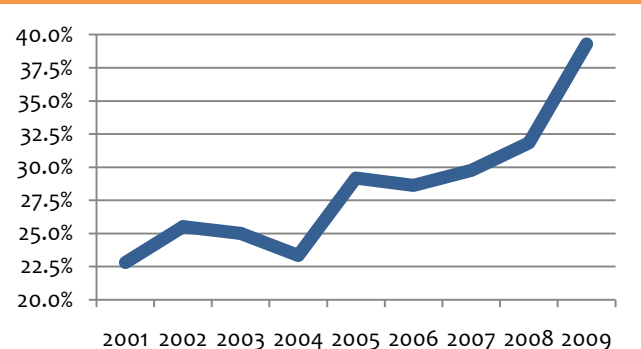


Source: GN Department of Education.

The graduation rate is also improving (see Figure 4-7). The most recent data suggest the 2008-09 school year saw the graduation rate rise to 39 per cent.¹⁵ Improvements of this magnitude are needed for several years. For now though, the trend is at least in the right direction.

Figure 4-7

Graduation Rate *, 1999 to 2009



Source: GN Department of Education, Statistics Canada Demography Division.

Note: *Graduation Rate is the percentage of graduates each year divided by the average of population aged 17 and 18.



Success in increasing the number of high school graduates has many benefits related to improved human capital, but also has the effect of improving future graduation rates since educated parents are more likely to insist their children complete their schooling. Thus, the noticeable improvements over the past five years give some credibility to assumptions that the graduation rates will continue to grow into the future.

There are different methods used to measure graduation rates. The approach adopted by the Department of Education and highlighted here is a common one where the numbers of graduates is compared to the average number of residents aged 17 and 18. This method offers a consistent and easily calculated measure and has become the standard in provincial jurisdictions. It is not a perfect method for Nunavut, however, where a large number of students require additional years to graduate (see Table 4-1).

Table 4-1

Age of Graduates, 2006-07 to 2008-09								
	<17	17	18	19	20	21	22+	Ave.
2006-07	2	37	61	39	20	7	25	19.5
2007-08	1	42	64	38	18	14	32	20
2008-09	4	35	85	44	38	13	28	19.6

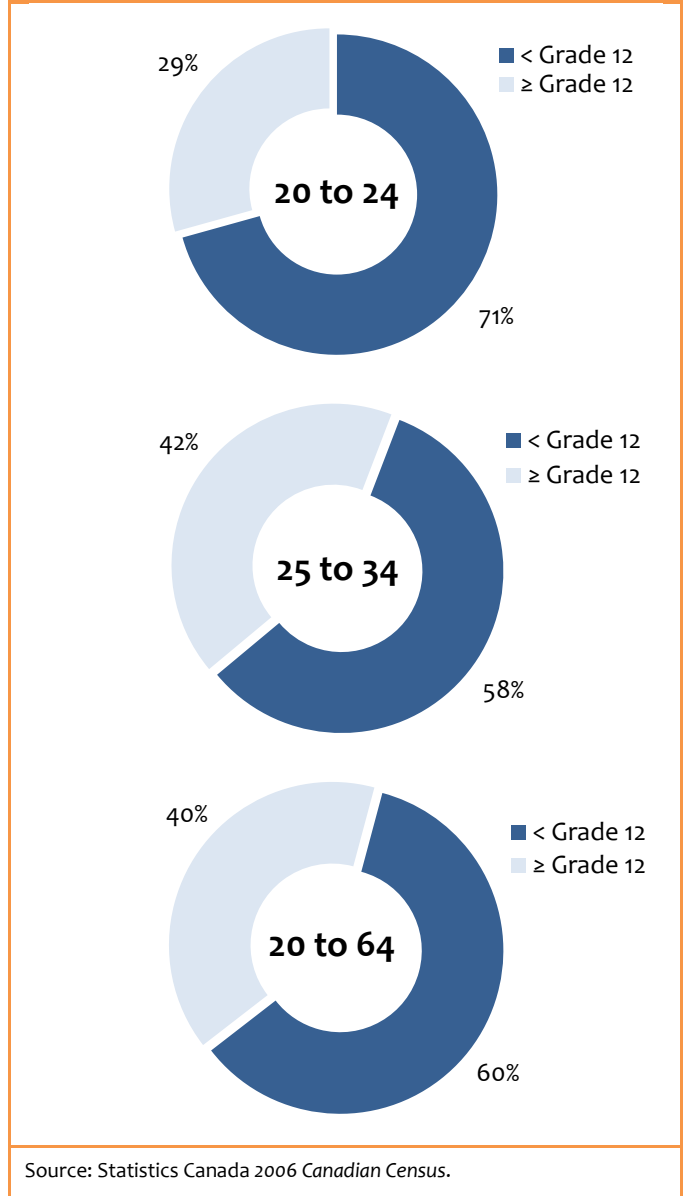
Source: GN Department of Education

To address this shortcoming, we can also look at the number of high school graduates between the ages 20 to 24 and compare that number to the number of residents in the same age cohort (see Figure 4-8). This information is collected through the Canadian Census every five years, with the last survey conducted in 2006. There are still issues with this indicator though. It too misses a portion of late graduates, though the proportion would be smaller. Using data from older age cohorts such as 25-34 addresses this issue, but introduces other biases such as the number of migrants to Nunavut who arrive with a high school diploma.

Not surprisingly, government spending on education has risen steadily over the past five years (see on the following page). It will exceed \$200 million for the 2010-11 fiscal year. A more informative indicator is the total operating cost for education compared to the number of

Figure 4-8

Percentage of High School Graduates, by age cohort, 2006 Canadian Census

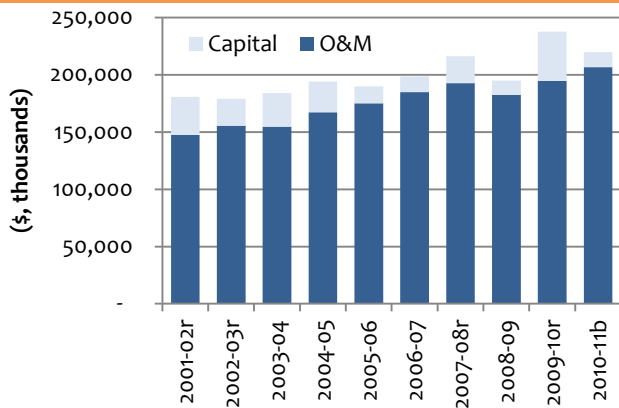


children accessing these funds after accounting for the effects of inflation (see Figure 4-10).¹⁶ This statistic shows a slow but steady increase in real spending per student with a deviation during the 2008-09 fiscal-year when spending dropped by \$10 million, which, when combined with higher prices and more students, lowered the real per capita spending by \$1,400.



Figure 4-9

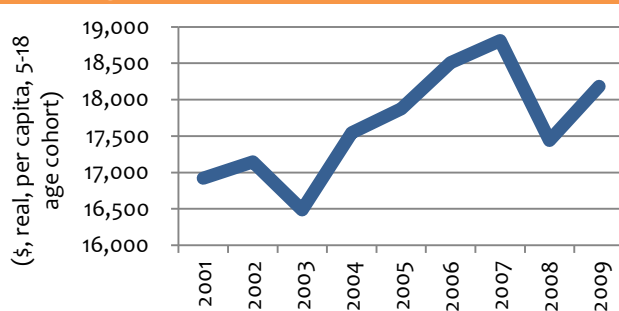
Government Spending on Education, 2001 to 2010



Source: GN Department of Finance, *Main Estimates*.

Figure 4-10

Government O&M Spending on Education, real per capita (5-18 age cohort), 2001 to 2009



Source: GN Department of Finance, *Main Estimates*, Statistics Canada CANSIM Table 51-0001, Impact Economics.

4.1.3 Health and Social Well-being

Health is an important contributor to wealth and happiness not only at an individual level but for the population as a whole. A healthy workforce is a productive workforce. As Nunavut's economy develops so too must the health of its population.

Previous Nunavut Economic Outlooks have noted that there will be increasing pressure on Nunavut to expand its acute care services. But given its limited financial resources and the need for cost-effective investments, the wisest spending will be spending that benefits the largest population as early as possible to prevent more debilitating problems later in life that are more expensive to treat.

We see some constructive efforts to improve public health services and prevent illness in Nunavut. Its commitment to improve public health and build capacity to do so can be seen through the creation of several important strategies such as a new Public Health Strategy, a Maternity and Early Childhood Health Strategy, and work on a new overall Health Strategy that would have these two as their cornerstones. While the results may not be seen for some time, the health and economic benefits of actions taken based on these strategies over the long-term will be significant. Strong leadership will be required to maintain this focus and to ensure funding continues to be directed to these areas.

4.1.3.1 Health Status

Each Outlook provides a list of health indicators to show the health status of Nunavummiut. This edition includes some of the traditional indicators used in previous reports¹⁷ as well as some new indicators of relevance to Nunavut (see Table 4-2). The forthcoming results of the Inuit Health Survey will no doubt provide much greater insight into the health status of Nunavummiut.

The citizens of Nunavut continue to fare poorly on most health status indicators in comparison to other Canadians. Life expectancy remains 10 years below the national average for males and 12 years lower for females. Likewise, infant mortality which is the death rate for infants below the age of one, continues to be more than double the national rate. The poor results on these key indicators continue to be a black mark for Canada and are arguably one of the most significant displays of health inequities existing today.

The death rate for the most common causes like lung cancer show dramatically higher rates for Nunavummiut than the Canadian average. The notable exception is heart disease. This continues to be a bright spot in Nunavut's health status and is likely attributable in part to many people still consuming heart healthy country food. When asked to rate their own health status—self-rated health status—Nunavummiut, particularly males, are less likely to rate their health “very good” or “excellent” compared to the Canadian average.

Table 4-2 includes several behaviour related indicators such as tobacco use and level of physical activity. These indicators are significant because changes in behaviour can lead to improved health. Tobacco use in Nunavut continues to be significantly higher than the Canadian average. Furthermore, a 2008 survey by Statistics Canada found that Nunavut had the highest percentage of non-smokers exposed to second-hand smoke at home (17.6%). This figure is calculated for



people aged 12 years or older and does not include younger children.

Prevention efforts are complicated because Nunavummiut may not be getting enough assistance to improve healthy behaviours. For instance, less than half of all Nunavummiut had contact with a family doctor in the past 12 months. Similarly, there remains a shortage of Nunavummiut nurses that was chronicled in a recent report by Nunavut Tunngavik Inc. The Department of Health and Social Services has faced a 30 per cent to 40 per cent nursing vacancy rate since 1999.¹⁸

4.1.3.2 Health Care System

All three territories, including Nunavut, spend more than any other province on health care per person (see Table 4-3). This is largely a result of having small populations living over a large geographical territory. Furthermore, government funded care continues to play a larger role in the territories than in the provinces where there is more private funding. This is due in part to limited wealth and access in the territories to purchase uninsured services such as out-of-hospital drugs and services provided by other health professionals.

Table 4-2

Select Health Status Indicators for Nunavut and Canada—latest available figures (figures in parentheses are from the 2001 Nunavut Economic Outlook for comparison purposes)

	Nunavut	Canada
Life expectancy at birth, males, (2005-2007)	67.2 (68.3)	77
Life expectancy at birth, females (2005-2007)	70.2 (71.3)	82
Infant mortality rate (per 1,000 live births) (2005-2007)	12.1 (17.9)	5.0
Low-birth weight rate (percentage of live births less than 2,500 grams) (2005-2007)	7.6 (7.4)	6.0
Deaths (Age-standardized rate per 100,000 population, 2000-2002)		
- All cancers	414.6	179.1
- Lung cancer	247.9	47.3
- Ischaemic heart diseases	79.7	111.2
- Cerebrovascular diseases	111.7	48.7
- Respiratory diseases	259.6	47.3
- Unintentional injuries	62.4	25.6
- Suicides and self-inflicted injuries	80.2	11.3
Self-assessed health status, male, (% reporting very good or excellent health)	42.3	60.7
Self-assessed health status, female, (% reporting very good or excellent health)	51.6	60.3
Self-rated mental health, males (% reporting very good or excellent)	72.7	74.5
Self-rated mental health, females (% reporting very good or excellent)	68.3	73.2
Cigarette smoking, (% of daily or occasional smokers age 12 and over) *	62.3	22.1
Percentage of non-smokers regularly exposed to second-hand smoke at home	17.6	6.2
Leisure time physical activity, males (% moderately active or active)	55.8	56.4
Leisure time physical activity, females (% moderately active or active)	42.0	48.7
Adult body mass index (Age 18+) (30 and greater) 2008	27.7	17.2
Percent of males that had contact with a medical doctor in past 12 months	49.1	74.4
Percent of females that had contact with a medical doctor in past 12 months	64.4	86.4

Source: Statistics Canada, Canadian Institute for Health Information

Note: * Data for Nunavut's 10 largest communities



Table 4-3 also provides health expenditures per capita that is standardized for age and sex; that is, adjusted so that Nunavut has the same age structure as the Canadian population. Under such a scenario, Nunavut's health care costs would be much higher due to the fact that the rest of the country features a much older population than Nunavut leading to higher health care costs. Nunavut's younger population however reduces the demand for more costly specialized health care.

Increasing health care costs has been a major preoccupation of provincial and territorial governments. Health care spending increased in Canada by 6.6 per cent between 2007 and 2008. In recent years, Nunavut has been able to contain health care costs. Health spending increased by 1.2 per cent during this period according to figures compiled by the Canadian Institute for Health Information. While the rate of

increase in health care spending is expected to decrease over the next few years, health care systems in Canada will be challenged to control health care costs.

The big three components of health care spending for most jurisdictions are hospitals, drugs and medical services. However, as shown in Table 4-4, Nunavut spends much less on these services and more on public health and "capital and other health". This latter component includes medical travel, which is a major cost of Nunavut's health care costs. It is not expected that Nunavut will develop its own highly specialized health care system, which cannot be supported by such a small population. However, there are instances whereby some strategic investments can help save money. These include telehealth services and preventive medicine. Nunavut recently received its first resident paediatrician in Iqaluit resulting in fewer children needing to be sent south for care.

Table 4-3

Health Expenditures by Province and Territory, 2009							
Province/ Territory	Spending (\$ Billions)	Spending per capita	Spending per capita (2007) ^a	Spending as a % of GDP	Spending per capita (Public dollars only)	Spending per capita (Private dollars only)	Public spending as % of total
Nunavut	0.4	11,811	13,789	25.8	11,009	802	93.2
NWT	0.4	9,906	9,225	8.3	8,211	1,695	82.9
Yukon	0.3	8,013	5,602	13.8	6,257	1,757	78.1
BC	23.3	5,254	3,119	12.3	3,771	1,483	71.8
Alberta	22.0	6,072	3,834	8.2	4,416	1,656	72.7
Saskatchewan	5.9	5,813	3,255	9.9	4,426	1,387	76.1
Manitoba	7.0	5,812	3,379	14.0	4,293	1,520	73.9
Ontario	72.3	5,530	3,161	12.7	3,712	1,818	67.1
Quebec	38.1	4,891	2,776	12.7	3,491	1,400	71.4
New Brunswick	4.1	5,506	3,141	15.0	3,857	1,649	70.1
Nova Scotia	5.5	5,841	3,143	16.1	4,055	1,786	69.4
PEI	0.8	5,768	2,870	16.7	4,203	1,565	72.9
Newfoundland and Labrador	3.0	5,969	3,570	10.3	4,491	1,479	75.2
Canada	183.1	5,452	3,159	11.9	3,829	1,623	70.2

Source: Statistics Canada, Canadian Institute for Health Information
 Note: ^a standardized for age and sex



Since the last report, the Government of Nunavut has released two new public health related strategies:

- *Developing Healthy Communities – A Public Health Strategy for Nunavut 2008-2013*; and,
- *Nunavut Maternal and Newborn Health Care Strategy 2009-2014*.

As stated in the Public Health Strategy document, “the primary purpose of the public health component of a health system is to promote and protect health and prevent disease and injury.” Public health programs include measures aimed at improving the health of populations such as immunization, prevention programs, well-baby clinics, and anti-smoking campaigns. Taking action to prevent and control disease outbreaks such as H1N1 in 2009-2010 and most recently, an increase in tuberculosis cases requires strong commitment, organization, and coordination up front to prevent major long-term illnesses.

Both the Public Health Strategy and the Maternal and Newborn Strategy place emphasis on healthy children and families which makes sense given Nunavut’s demographics and the significant effect that investments in children can have over the long term. Starting off in life healthy can lead to savings down the road and a more productive workforce and society.

The development of these strategies and subsequent action plans are sound starting points—but they are only that. The next step involves committing financial and human resources to implement strategies at the community level. Consideration should be given to keeping the objectives and implementation efforts of the various strategies simple and coordinated. Furthermore, given Nunavut’s limited resources, it will require a strong grass-roots community approach that relies on traditional Inuit supports and resources—otherwise it may not be possible to implement them effectively.

Table 4-4

Total Health Expenditures by Use of Funds, Percentage Distribution, 2007

Province/ Territory	Institutional services	Professional services	Drugs	Public health	Capital and other health
Nunavut	39.9	13.7	5.2	11.7	29.5
NWT	50.8	16.5	6.4	9.3	17
Yukon	39.3	16.6	10.1	17.7	16.3
BC	35.3	27.8	13.4	6.3	17.2
Alberta	36	24.5	13.2	9.5	13.4
Saskatchewan	40.9	21.6	14.5	9.6	13.4
Manitoba	42.9	21.6	13.8	6.8	14.9
Ontario	35.9	25.9	17	7.3	13.9
Quebec	42	20.7	20	4	13.3
New Brunswick	45.7	20.7	16.9	3.3	13.4
Nova Scotia	45.4	21.7	17.8	3.5	11.6
PEI	45	20	16.2	4.6	14.2
Newfoundland and Labrador	51.7	18.1	16.5	3.4	10.3
Canada	38.4	24.1	16.5	6.6	14.4

Source: Statistics Canada, Canadian Institute for Health Information



4.1.3.3 Social Conditions and Well-Being

Nunavut’s prosperity and economic development are deeply interconnected with its social development. *Tamapta*, the Government of Nunavut’s most recent five-year vision for the development of the Territory, identifies elements of a high quality of life and places priority on improving the standard of living for Nunavummiut as well as having healthy citizens and self-reliant communities. To achieve this vision, work is now underway to define a minimum standard of living for all Nunavummiut.

Table 4-5 provides a sample of social development indicators for both Nunavut and Canada. This sampling shows that many fundamental issues are present in Nunavut that will affect any progress on social development including the lack of adequate housing, food security and income security:

- Nunavut has almost double the percentage of lone-parent families than the Canadian average;
- There remains a serious overcrowding problem in homes which leads to greater spread of diseases and infections and poor sleeping conditions;
- Many households in Nunavut suffer from food insecurity.

Food security, as defined by Statistics Canada, exists in a household when all people, at all times, have access to sufficient, safe and nutritious food for an active and healthy life.¹⁹ Conversely, food insecurity occurs when either food quality or quantity are compromised, typically as a result of

limited financial resources.²⁰ Two surveys conducted during 2007-2008 found food insecurity to be a serious problem in Nunavut. The Canadian Community Health Survey reported that almost one-third (31.9 per cent) of Nunavut households indicated food quality and/or quantity were compromised usually due to limited financial resources compared to only 7.7 per cent nationwide. The survey found that lone-parent families, which as previously mentioned are more common in Nunavut than elsewhere, had the highest incidence of food insecurity.²¹ The Nunavut Inuit Child Health Survey (2007-2008) also found a high incidence of food insecurity in Nunavut with nearly 70 per cent of Inuit preschoolers (aged 3-5 years) residing in households rated as food insecure.²²

Social conditions in Nunavut will be slow to improve. As Nunavut’s deputy chief medical officer recently commented on the highest number of yearly tuberculosis cases seen in more than a decade: “Issues of poverty really underlie a lot of the high rates of TB, and they’re really beyond the control of the health department. They involve a long-term investment. There’s no quick-fix solution.”²³

Clearly, Nunavut’s poor social conditions affect health outcomes as well as opportunities to participate in the growing economy. Some may argue that more economic development is needed to support improvements in social development. However, improvements in social development may be needed first to ensure Nunavummiut are able to be more actively involved in their own economic development.

Table 4-5

Select Social Development Indicators for Nunavut and Canada		
Social Indicator	Nunavut	Canada
Dependency Ratio ^d	82.1	59.2
Sense of community belonging (% indicating very strong or somewhat strong belonging)	85.3	65.4
Lone parent families	27.6	15.9
Average number of persons in household (2006 Census)	3.7	2.5
Dwellings with more than one person per room - % of total occupied private dwellings ^b	18	1.5
Household food insecurity, 2007-2008 ^c	31.9	7.7
Property crimes per 100,000 population (2007)	4,133	3,320
Violent crimes per 100,000 population (2007)	7,164	930

Source: Statistics Canada

Note: ‘a’ The ratio of the combined population aged between 0 to 19 years old and the population aged of 65 years and over to the population aged between 20 to 64 years old. This ratio is usually presented as the number of dependents for every 100 people in the working age population.

‘b’ A ‘room’ is an enclosed area within a dwelling which is finished and suitable for year-round living (e.g., kitchen, dining-room, or bedroom)

‘c’ Percentage of households indicating food quality and/or quantity are compromised usually due to limited financial resources



4.1.4 Income and Wealth

Financial wealth is fundamental to the advancement of human capital. It is from financial wealth that individuals, families and communities are afforded the opportunity to make choices. In economics, more choices equates to more freedom. Greater and more secured sources of income can raise the standard of living for families, providing the opportunity to improve the quality of their homes and possessions. It gives people a chance to make healthier life decisions such as the quality of food purchased, or the recreational activities in which their children can participate. Financial wealth allows family members the opportunity to attend college or university. Financial freedoms limit the need for additional sources of income and increase the time available to spend with one’s family, to relax, to participate in the land-based economy or to volunteer in the community. Financial wealth also offers the opportunity for families to save. These increased freedoms are an important component within our definition of a high and sustainable quality of life.

This being the case, a typical goal for society is for everyone to become wealthier and thus increase their economic, social and political freedoms. A necessary step in achieving this goal is the elimination of poverty and growth in a strong middle class. Achieving this goal requires a strategy of economic growth, taxation, income support, and social spending. But unfortunately, such a strategy has proven to be quite complex. How income is distributed, or perhaps more to the point, how income is redistributed, can have significant implications for future economic growth and directly

affects a society’s ability to eliminate poverty and ultimately to make all its citizens wealthier.

In Exhibit 4-1, a society might want to move from Scenario A where there are few rich and many poor (a scenario that is often found in poor developing countries) to Scenario B where there is no rich or no poor. This scenario would be appealing to 80 per cent to 90 per cent of those living under the regime depicted in Scenario A since it offers the greatest assurance that poverty would be eliminated. The challenge in eliminating poverty in this manner is that one risks penalising education and discouraging entrepreneurship that would otherwise be key ingredients to a region’s future prosperity and thereby eliminating the possibility of everyone becoming wealthier.²⁴

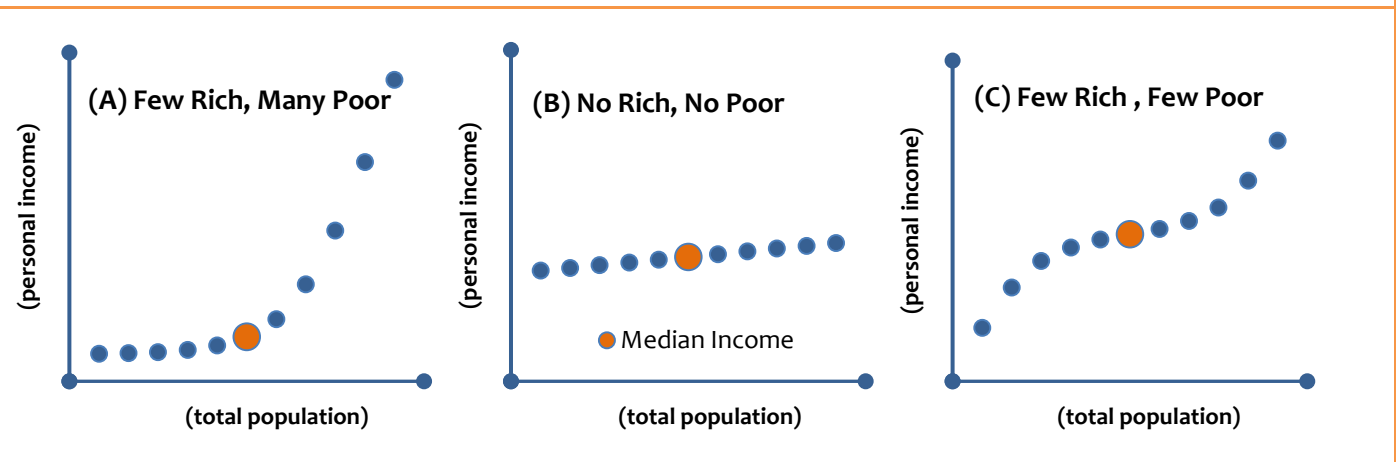
Canada is best described by Scenario C where extreme poverty is addressed principally through the taxation of its wealthiest citizens, leaving a large middle class. Whether or not this is the best approach to achieve our nation’s goals is a separate debate.

The point for Nunavummiut is that they have some control over how to reward those with greater education, skill, ingenuity, and luck and how to treat those with low education, poor health, few skills and no luck. The question of income distribution will become increasingly important as the Nunavut economy grows and the disparity between rich and poor widens.

Exhibit 4-1

Distribution of Income—Society’s choices can influence how income is distributed

(distribution of wealth amongst population)





How should Nunavut treat those that are unready, unwilling, or unable to participate in a growing wage economy?

Should the reasons for not participating put individuals into different categories of support?

For example, should someone unable to participate (perhaps due to mobility) be treated the same way as someone unwilling to participate (perhaps due to a preference of the lifestyle provided through government support)?

What are the options for anyone who cannot be helped by programs geared toward workforce readiness?

There is a strong argument for the role of the economy in assisting the less fortunate. It is in times of great economic opportunity that people outside the workforce can be brought in. But this will not always happen without government intervention to help this form of inclusion. The challenge is to intervene in a way that doesn't stifle the very economy that is providing the opportunities. Once in the workforce these newcomers are often the greatest champions for a continuation of the economic growth since they are the most vulnerable to be returned to their previous socio-economic state should the economy collapse. History provides evidence of the rise of a middle class as a key to social inclusion and wealth distribution.²⁵

4.1.4.1 Latest Data on Income and Wealth

At first glance, it would appear income levels and overall wealth of Nunavummiut have improved consistently over the past ten years, with 2007 being one deviation. The 2008 Nunavut Economic Outlook included some statistics from the 2006 Census that showed this to be the case. From 2000 to 2005, there was a marked increase in real family income.²⁶

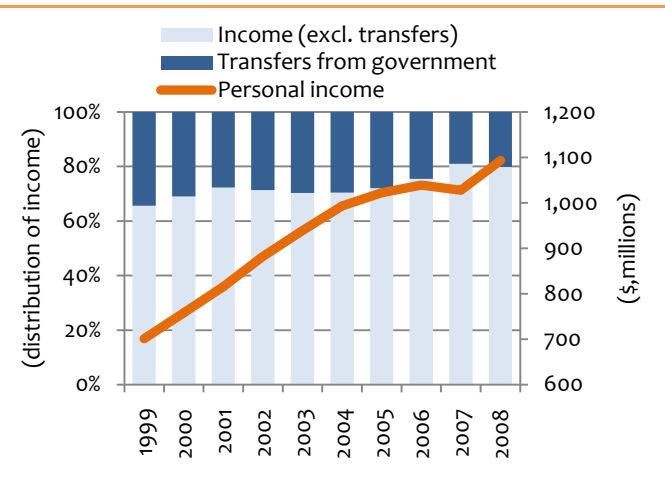
In *Figure 4-11*, one can see that wages and salaries, income from self-employment and investment income (income excluding transfers) has been growing as a share of total personal income. This suggests that Nunavummiut are becoming less dependent on income support. Initial estimates of income for 2009 show that wages and salaries increased that year as well but at a minimal rate—no doubt the result of recession and its impact on some areas of the economy.

Tracking the increase in nominal income does not give a true perspective on the changing wealth of Nunavummiut. The sole purpose of money is its purchasing power; that is, what it affords. It is also important to consider how the change in income compares to changes in population. Should the growth in population outpace that of income, it means that there is less money per person (assuming an even distribu-

Figure 4-11

Level and composition of personal income, 1999 to 2008

(percent of total personal income, \$ millions)

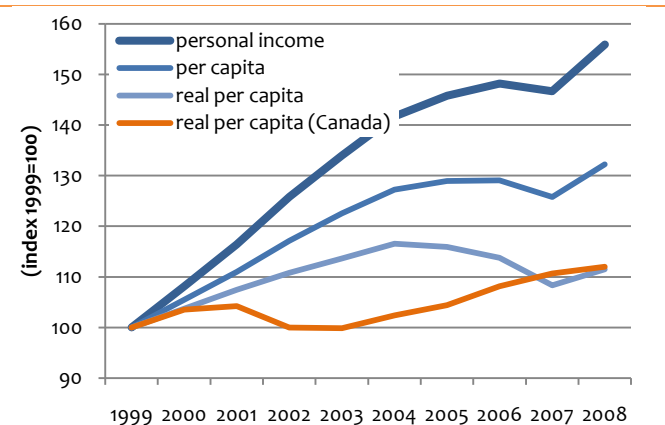


Source: Statistics Canada CANSIM Table 382-0012

Figure 4-12

Comparison of Personal Income Growth, 1999 to 2008

(nominal, per capita and real per capita growth)



Source: Statistics Canada CANSIM Table 382-0012 and 384-0036.

tion). Therefore, the growth in personal income should take into account changes in the real value of money and the changes in population (see *Figure 4-12*).

Taking these additional factors into account changes the picture of income growth considerably. *Figure 4-12* presents the data indexed to 1999. Since that time, nominal personal



income has grown by 56 per cent. Relative to population growth, income growth has equalled 32 per cent. Considering population and inflation, the growth in personal income is just 11 per cent. More interesting is that when viewed through these additional lenses, there has been no improvement in real per capita income since 2002 and real per capita income has declined since its peak in 2004-05.

One must remember that during the period from 2004 to 2007 Nunavut's economy performed badly and we can now see the results in the data. Nunavummiut suffered a real setback in terms of their wealth. In 2008, there was a rebound as economic activity began to pick up only to suffer an additional setback in 2009.

The stagnation in growth in real income for the past several years is a concern, but more important is the low median income. Data from the last Census, which is now 5 years old and therefore should be viewed with some caution, shows the average income in 2005 was \$34,182 for persons 15 years and older who reported income compared to the Canadian average of \$35,498. The median income that year was \$20,982 whereas it equalled \$25,615 across Canada. Only Newfoundland and Labrador reported a lower median income, but shows by far the greatest discrepancy between the mean and median income. This can be viewed as an indicator of the level and extent of income disparity. More work is necessary to determine how median income has evolved since 2005 and how it links to changes in poverty levels.

Without any real improvements in overall income levels and some closure in the gap between the mean and median income levels, society will not reach its goals of a high and sustainable quality of life. More to the point, static wealth typically means that there is little chance for positive social change—people who are afforded few economic, social or political freedoms have little opportunity to improve their circumstances.

4.2 PHYSICAL CAPITAL

Physical capital is most often defined as infrastructure or physical assets. This includes all forms of infrastructure from housing, to schools and hospitals, roads, communication networks, marine and airport facilities, municipal works, community, office and retail buildings and more. Though physical capital is sometimes referred to as *economic capital* this term can be easily misinterpreted since many of the examples of infrastructure listed above serve objectives beyond economic ones.

In addition to the physical assets, physical capital includes investment capital. This can be in the form of savings accounts, ready access to credit, and even fiscal surplus. Ready access to money is an important contributor to the development of a society. It is the means by which a society can make choices—the more money held within a society, the more choices it has available. More choice translates directly into greater freedom whether economic, social or political.

4.2.1 Housing

Shelter is one of life's basic requirements. It is believed by many working in the area of population health that housing deprivation can negatively influence social and economic performance given its central influence on people's lives.²⁷ Adequate housing lowers a community's vulnerability to economic, social or environmental changes and provides the basis from which a society can build healthy and more self-reliant communities.

Nunavut's housing stock was 9,041 as of 2009 (see Table 4-6). Through the Nunavut Housing Corporation the territorial government maintains approximately 4,200 public housing units, 1,342 staff housing units, and holds mortgages for 500 homeowners.²⁸ The remaining units are privately held, administered by other levels of government, or the Nunavut Arctic College.

From 2000 when the Nunavut Housing Corporation (NHC) was created to the end of the 2010 construction season, the government will have constructed approximately 1,150 new public housing units—430 came in the first six years with the remaining 725 constructed since 2006. The jump in construction is a result of the \$200 million federal government northern housing program. Another \$100 million was added to the program in 2009 that will allow for the construction of 285 additional units in the next two years. Over the NHC's 12 years of operations (including the 2011 construction season), the corporation will have built an average of 120 units annually.

**Table 4-6****Nunavut's Public Housing Numbers, 2009**

Current Housing Stock	9,041
Government-owned Homes	4,183
Government-leased Homes	1,359
Government-backed Mortgages	500
% of Population Living in Public Housing	54%
% of Population Living in Public Housing that are Inuit	99%
Nunavut Housing Trust (NHT) Fund	\$200 m
NHT Units (2006-07 to 2009-10)	725
Latest Federal Housing Money	\$100 m
Planned new units (two-year timeframe)	285
Annual Cost of Maintenance per Unit	\$21,950
Nunavut Housing Corporation Budget (incl. other expenses) 2010-11	\$183 m
Nunavut Housing Corporation Budget (% of overall government spending)	15.3 %

Source: Nunavut Housing Corporation 2009-10 Business Plan, Nunavut Housing Trust, Government of Nunavut Main Estimates 2010-11

4.2.1.1 Current and Future Dependence on Public Housing

Earlier editions of the Nunavut Economic Outlooks have highlighted

- the uniqueness of Nunavut's housing market,
- the strain that public housing places on public finance,
- the issue of overcrowding in some homes,
- the long wait-list for new units, and
- the economic, health, and social consequences of the housing status quo.

These highlights should be thought of as a permanent description of the Nunavut public housing market unless significant changes can take place. More public and private sector homes are needed. This new stock of public housing will reduce some of the pressure for public housing from the existing overcrowded units and from a fast growing population, but will not be enough to eliminate the demand.

What is troubling about the supply and demand conditions for public housing from the perspective of economic planning, public finance and even poverty reduction is the pros-

pect of there being no end in sight to the growing demand for public housing. The reality of the situation is that the Nunavut Housing Trust could be given twice the amount it actually received and there would still be demand for more housing. The endless demand means government's annual construction of public houses cannot stop. This draws funds away from other areas of need and adds to the overall operations and maintenance budget.

Efforts to reduce demand have had some success, such as those efforts to encourage home ownership through financial incentives and eliminating housing as a part of the compensation package for government jobs. However, grander initiatives are needed if the existing trend is to be broken, especially outside Iqaluit. If not, the next twenty years will see the size of Nunavut's public housing stock grow to an increasingly unmanageable number and yet demand for more will still exist. Moreover, a lack of housing will only lead to more Nunavummiut leaving the Territory.

So the question is how is this dependence on social housing going to change?

Indeed, this is not a new question for Nunavummiut nor is it one that has not been studied and discussed at length by the key stakeholders involved. It nevertheless requires an answer.

To reduce dependence on social housing will require numerous and broad-based changes to occur, most of which fall well outside the reach of the residential construction industry or the Nunavut Housing Corporation. A very basic list of some of the changes that are needed include

- greater financial independence amongst an increasing number of Nunavummiut—this would require a stronger wage-based economy with an increased number and variety of job opportunities and improved education, skills and mobility of Nunavut's labour force
- a stronger and more competitive private-sector residential construction industry
- continued and possibly greater incentives (positive and negative) to encourage home ownership
- more stringent social housing rules and regulations

In truth, Nunavut is doing something in all these areas. The Territory is opening the economy to resource development in an effort to create jobs and increase wealth, the government has renewed its focus on the principles of good government though its action plans described in *Tamapta*; that is, being the central provider of quality education, health and social services, and has in place mechanisms that has



the cost of rent for public housing increase to market rates as tenants income crosses an established threshold.

But population projections show that these actions may not be enough. The number of individuals and families on the waiting list for social housing is not decreasing at a pace equal to that of new construction. And it is also reasonable to conclude the list of challenges will not be overcome in the short to medium term, especially in communities with few economic opportunities. This leaves some difficult questions to consider and debate.

Is there an alternate housing market model?

Can Nunavut find a mechanism to provide housing for its residence in a way that is affordable to government and acceptable from the perspective of society's quality of life?

Once removed from a market-based approach, are some communities better suited to manage their housing needs differently?

If no alternatives exist, what is the motivation for families to get into home ownership? How do you deal with risk?

4.2.2 Communications

Communications infrastructure is critical to the economic, social and cultural progress of Nunavut society. In particular, readily available access to broadband is now a necessity that few people in western society can live without. This dependence is a reality in Nunavut for everything from government and private-sector operations, banking and other financial services, education, health care, personal communications, shopping and entertainment. Simply put, society can no longer function efficiently without reasonable access to broadband. This infrastructure is and will continue to have a far greater impact on Nunavut society than would any other investment in transportation or communication infrastructure.

Ready access to high-speed broadband is an important step toward the long-term sustainability of Nunavut communities. Through easy access to the Internet, Nunavummiut, especially the younger age-cohorts, will gain a new perspective of the world in which they live. From this new understanding, their expectations will heighten—including expectations of their community, their government, their economy and their education. Perhaps most interesting, the mobility of young Nunavummiut will surely grow as the rest of Canada and indeed the entire world becomes less unknown.²⁹

There are a number of different Internet Service Providers (ISP) in Nunavut, including Northwestel, Netkaster, Ardicom and SSI Micro. Northwestel offers digital subscriber line (DSL) which brings broadband in through telephone lines. This service is currently available in Iqaluit. Netkaster is a Northwestel service that offers satellite Internet using Telesat's Ka-Band Technology.³⁰ This service requires a satellite dish attached to one's home. It allows users in remote locations to access the Internet without additional infrastructure. Ardicom is a joint venture between Northwestel, Arctic Co-op Ltd., and Northern Aboriginal Service Company. It is primarily a provider of bandwidth to government and businesses. SSI Micro operates QINIQ, which is a wireless community-based ISP. It is the only service available in every Nunavut community, is the least expensive and the most used. QINIQ is supported by the Nunavut Broadband Development Corporation.

The challenge for all ISPs is bandwidth access and management. Nunavut relies exclusively on satellites for its Internet communications. Current satellite infrastructure for the North is limited and very expensive.

Recent years have seen a steady flow of investments in broadband infrastructure. Most notable has been the upgrades for the QINIQ service. Over the past year, over \$10 million has been invested in community infrastructure and increased bandwidth. An additional \$9 million will be spent in the coming year to further enhance bandwidth to adequately provide service to 6,800 users by 2012.³¹ Additional bandwidth will be necessary to meet the consumer demands beyond this time period.

The investments in QINIQ are a part of a five-year infrastructure commitment between the Nunavut Broadband Development Corporation, SSI Micro and the federal government. As a part of these investments, QINIQ will introduce services for classroom connectivity, large file transfers, audio and video conferencing, and direct connections with other ISPs in the larger Nunavut communities.³² These services will provide additional access and better management of the available bandwidth.

4.2.3 Public Infrastructure

Public infrastructure is a form of physical capital that impacts all aspects of a society's performance.



- *Economic performance* is influenced by improvements in telecommunications, transportation, energy, business centres such as research parks, and housing.
- *Social performance* benefits from investments in housing, health care facilities, schools, protective services and equipment (e.g., fire fighting and prevention).
- *Environmental performance* benefits from investments in such things as waste water treatment, solid waste disposal, recycling programs, efficient and green energy, and hazardous waste facilities.

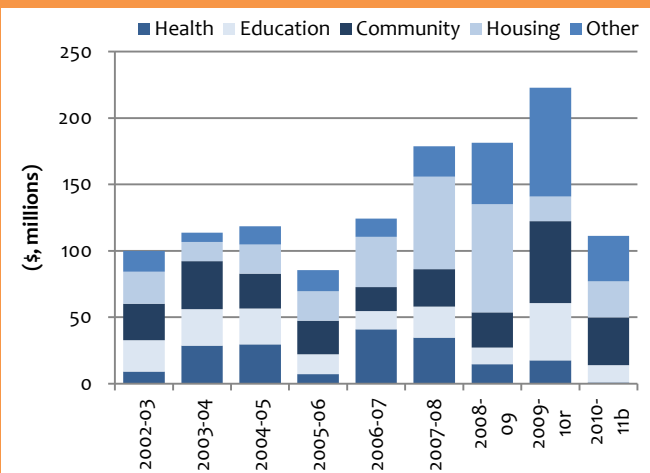
Nunavut faces many infrastructure challenges, but perhaps none more so than with its public infrastructure. In 1999, the state of public infrastructure was inadequate for Nunavummiut to reach a high and sustainable quality of life. Ten years later, the Government of Nunavut continues its work to rectify this problem. But in dedicating budgetary resources for new infrastructure, it must also contend with the need to replace existing and deteriorating assets. It must bring municipal infrastructure up to code, meet the additional needs of a growing population and an expanding economy, and faces real threats from climate change that can have catastrophic consequences for buildings and roads that depend on the presence of permafrost.

There was a marked increase in public infrastructure from 2007-08 to 2009-10 fiscal years. After several years where capital spending averaged approximately \$100 million annually, the government's capital budget jumped up to the \$180 million a year range and in 2009-10 topped \$223 million (see *Figure 4-13*). Large increases in the Nunavut Housing Corporation's budget were responsible for the earlier rise, while the increase in the most recent fiscal year was the result of increased capital investment in education facilities and in community infrastructure.

This three-year rise in spending was heavily influenced by specific-purpose federal government funding which supported the Nunavut Housing Trust, and provided community infrastructure money through the Municipal Rural Infrastructure Fund, the Gas Tax Fund, the Building Canada program and the 2009-10 Federal Budget stimulus money (see *Figure 4-14*). These different funds allowed the Government of Nunavut to proceed with some major capital projects that would otherwise have been too

Figure 4-13

Government Capital Spending, by department, 2002-03 to 2010-11



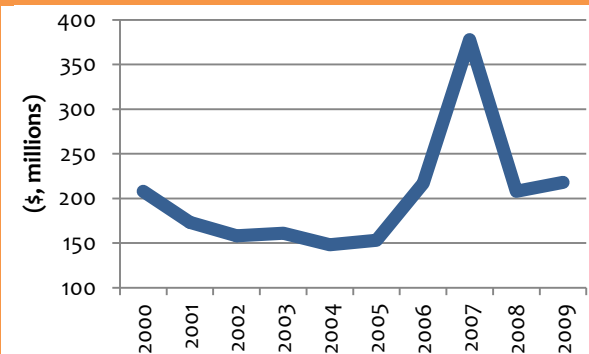
Source: GN Capital Estimates 2002-03 to 2010-11

expensive for the government to undertake on its own (see Table 4-7).

Some of these funding sources will sunset this year while others will have their budgets reduced. The result is a 50 percent reduction in planned capital spending for 2010-11. A \$60 million cost overrun by Nunavut Housing Corporation's on the initial \$200 million transferred to the Housing Trust will further constrain the government's ability to invest. Some of the larger projects in this year's budget are noted in Table 4-8 on the following page.

Figure 4-14

Specific-Purpose Transfers from the Federal Government, 2000-2009



Source: Statistics Canada CANSIM Table 385-0002

**Table 4-7**

Other Funded Infrastructure		
	Total Cost	3 rd Party Funded
	millions	per cent
Building Canada Fund		
Community Halls, Municipal Offices, and Other Municipal Funding	\$38.0	75%
Piqusilirivvik Cultural School (Clyde River)	\$32.2	75%
Airfield Upgrades	\$10.7	75%
Municipal Rural Infrastructure Fund		
Community Halls and Arenas	\$51.5	71%
Canada Strategic Infrastructure Fund		
Sewage Lagoons, Solid Waste, Water and Other Municipal Services	\$27.3	45%
Gas Tax Fund		
Correctional Centre (Rankin Inlet)	\$39.0	100%
Canadian Mortgage and Housing Corporation		
Modernization and Improvement Retrofit	\$252.7	59%

Source: GN Capital Estimates 2009-10

Note: The total cost is that of the program spanning multiple years. For most programs a large percentage of the total fund has now been spent (with the exception of the CMHC program which is winding down over a longer time period). 3rd party funded refers to agencies other than the Government of Nunavut.

Previous editions of the Outlook discussed the challenges associated with specific-purpose funding. These programs have enriched Nunavut's infrastructure investments to a level, if sustained over a period of ten to fifteen years, could have helped eliminate much of Nunavut's infrastructure gap. But these specific-purpose funding programs exist for two or three years and then disappear, meaning the government must start again with a campaign to attract federal dollars over-and-above the transfers it receives through the Territorial Formula Financing Agreement. This is a more challenging task given the current fiscal position of the federal government.

Table 4-8

Selected GN Capital Projects, 2010-11 fiscal year	
Cultural Infrastructure	
Nunavut Heritage Centre (Iqaluit)	\$7.0
Inuksuk High School (Iqaluit)	\$3.4
Peter Pitseolak School (Cape Dorset)	\$1.0
New School (Sanikiluaq)	\$5.1
Nunavut Housing Corporation	
Staff Housing-Folk School (Clyde River)	\$2.8
Staff Housing-Correctional Facility (Rankin Inlet)	\$6.1
Staff Housing-New School (Sanikiluaq)	\$1.5
Staff Housing-General	\$2.0
Homeownership Programs	\$4.0
Modernization and Retrofit	\$6.3
Community Infrastructure	
Arena (Resolute)*	\$7.8
Bulk Fuel Storage (Rankin Inlet)	\$6.5
Bulk Fuel Storage (Pangnirtung)	\$2.0
Water Systems Upgrade (Kugluktuk)	\$1.8
Community Hall (Igloolik)*	\$5.4
Pump House (Baker Lake)	\$1.4
Justice	
Correctional Centre (Rankin Inlet)	\$16.2

Source: GN Capital Estimates 2010-11

Note: *figure represents GN's portion of the total. All projects exceeding \$1 million are highlighted.

Perhaps countering this, however, is the federal government's current interest in "the North" which has escalated over the past five years. Melting sea ice has been the instigator of discussions on increased marine traffic, off-shore oil and gas reserves, and Arctic sovereignty. The Prime Minister has made several visits to Nunavut, has appointed the Member of Parliament from Nunavut to a high profile cabinet position, and continues to highlight Arctic issues in the government's budget. There is an opportunity here for Nunavummiut to leverage this heightened interest in order to gain funding for key infrastructure investments and other areas of need. But it should not be assumed that the federal government's plans for the Territory are the same as those of Nunavummiut. In fact, there is a very real possibility that a



divergence in visions between Ottawa and Nunavut exists. It will be up to Nunavummiut to promote their vision and influence the opinions of federal government officials.

4.2.4 Private Infrastructure

4.2.4.1 Industrial Infrastructure

The 2008-09 recession brought with it an end to some planned industrial infrastructure. At that time, OZ Minerals were assessing the potential for construction of a road from Izok Lake straight north to the Arctic Ocean where a port facility would be built. This had the added benefit of linking the High Lake deposit, also owned by OZ Minerals at that time, to the coast. Baffinland Iron Mines was proposing a rail line from its Mary River iron deposit to a new port facility on the west coast of Baffin Island in Steensby Inlet. The post-recession economic realities make these road and port projects less attractive.

In their place are some alternate infrastructure projects underway or in the planning stages. Construction of a \$25 million harbour in Pangnirtung is underway. It was proposed as part of the 2005 *Nunavut Small Craft Harbour Report*³³ and received funding in the 2009-10 federal budget as part of federal government's economic stimulus package.

The project is currently in Phase I of a two-phase project. Current work includes dredging, building a containment wall and some road infrastructure. Next year will see additional dredging, the construction of a sealift ramp, a breakwater and a larger marshalling area.³⁴

The Government of Nunavut has put some money aside to advance smaller harbour projects in six other communities identified in the report, but will need federal support to move these projects to a construction phase. This marine infrastructure would greatly improve safety in the communities and would go a long way in improving the in-shore fishery.

The port at Nanisivik is being upgraded by the federal government through the Department of National Defence. This facility will be a part of Canada's northern military presence. It is estimated that \$100 million will be spent on this project.

Despite the setbacks in the mining sector, it continues to offer the best chance for advancing industrial infrastructure in the Territory. Exploration and mining activities at the

Meliadine West gold deposit northwest of Rankin Inlet have continued. This could result in infrastructure investments from which the nearby community could benefit.

As a part of the preliminary work, the project's proponents have mapped out the location of an all-weather road that will run through Rankin Inlet municipal land and then onto land owned by the Kivalliq Inuit Association. This road will provide access to Meliadine Lake where several cabins currently exist. Plans are underway to construct a bridge to cross the Meliadine River. The company is also looking for the construction of a fuel tank farm in Rankin Inlet and to negotiate the location of a fenced lay-down area.³⁵

Similarly, road and marine infrastructure will be needed for the Kiggavik uranium project located 80 kilometres west of Baker Lake. Specific details of this infrastructure are still being studied. Construction of mining facilities at Hope Bay has ramped up over the summer months. The current operation is using a barging facility rather than a full port facility.

Several major infrastructure projects continue to be pursued. The most advanced is the Bathurst Port and Road Project. Its supporters plan to apply for permits within the next two years. This is a large construction project that includes a port facility at Bathurst Inlet and a road to Contoyto Lake. The road would offer an alternate resupply route to existing diamond mines in the NWT that currently use a winter-road system to bring in supplies. The road would also offer transportation options for future mines at Hackett River, Izok Lake and other locations in the Slave Geologic Province. A new feasibility study will provide more accurate cost estimates and calculate future revenue streams to determine whether the project can be profitable.

The feasibility of a road linking the Kivalliq Region with Manitoba is being studied. The City of Iqaluit has been investigating the feasibility of a port facility for its community.

It is an important issue for the 2010 Nunavut Economic Outlook that physical capital investments in some important areas are in decline in Nunavut. There are many potential projects, but few are actually underway. Nunavut cannot afford many years of under investment in its physical capital or its infrastructure gap will start to widen rather than narrow.



4.2.4.2 Access to Capital

Access to financial capital is a critical component of the overall stock of physical capital in a region. Some would argue that open and easy access to capital through an efficient banking system is one of the fundamental requirements for economic development.³⁶

It is rare that financial institutions are discussed in the context of Nunavut's socio-economic development. For the most part project financing has been government-led, and not initiated by the private sector. And to that end, it could be argued that Nunavut is better served by federally-backed lending and business support services given the nature and risk of business start-ups in the Territory. For example, the Nunavut Business Credit Corporation is an agency of the Government of Nunavut that provides debt financing in a manner similar to financial institutions in the private sector, but with additional support systems necessary for Nunavut's developing economy (see Exhibit 4-2).

Exhibit 4-2

Nunavut Business Credit Corporation

The mandate of NBCC is to function as an agent of the Government of Nunavut to stimulate economic development and employment in Nunavut by supporting, financing, and investing in resident business enterprises. As businesses supported by NBCC succeed, there will be increased economic opportunity and diversity leading to more jobs and greater economic stability in Nunavut communities.

NBCC is a Crown Agency of the Government of Nunavut, and strives to contribute to the government's vision of *Tamapta*, building our future together.

Source: Nunavut Business Credit Corporation

But it also important to look at the growth and development of the financial services sector apart from government funded institutions. Two of Canada's chartered banks operate in Nunavut. These institutions do not offer high risk loans or credit without sufficient assets to back them up. This can be a challenge for Nunavut, especially given the land tenure rules and regulations. These banks are also not present in all communities. This is particularly noticeable in a community like Baker Lake, where employment and income levels have jumped considerably. Money management is

made particularly difficult if people with newly found wealth have nowhere to put it other than their back pocket.

Atuqtuarvik Corporation is an investment company that was created by Nunavut Tunngavik Incorporated (NTI) and Nunavut Trust to help ensure direct Inuit participation in major economic opportunities. The corporation provides loans and equity investments to Inuit-owned businesses for the purpose of business start-ups, acquisitions and expansions.³⁷

First Nation's Bank of Canada opened a new branch in Iqaluit in June of this year. NLCA beneficiaries are shareholders in the company through an 18 percent stake held by Atuqtuarvik Corporation. It will be interesting to follow the success of this new institution and its management of Nunavut business credit requirements.

4.3 ORGANISATIONAL CAPITAL

Organisational capital (sometimes referred to as "social capital") speaks to how a society is organised and functioning to create wealth. In Nunavut's case, this refers to how the Territory has organised itself in terms of government, the not-for-profit and voluntary sector (often referred to as "civil society") and the private sector. Social capital also speaks to the level of trust within a society that allows its members to organise and work collaboratively. This latter concept also includes the issue of social cohesion—the manner in which individuals, communities and institutions get along.

Is Nunavut society best characterised as one of cooperation, mutual respect, and openness or with examples of distrust, isolation, and social exclusion?

Changes in organisational or social capital are difficult to measure. Unlike human and physical capital, there are few statistics collected specifically for this form of capital. The policies of government, the role and influence of non-government institutions and the manner in which decisions are made help us to understand the organisational capital of a jurisdiction.

Previous Outlooks reported on the formation of Nunavut and its choices in organisational structures and institutions. Leadership was initially devoted to establishing a government appropriate for Nunavummiut, including such things as decentralisation of government departments and implementing a policy to provide preferential treatment in contracting to local businesses.³⁸ Likewise, Nunavut Tunngavik Incorporated, representing Inuit interests under the *Nunavut Land Claims Agreement*, has spent the past several years working on the Agreement's implementation.



In recent years, there have been more efforts by the main political and economic leaders to work together to set concrete directions for Nunavut's economy. This has involved the creation of several coalitions and collaborative projects and the development and release of several strategic plans for action, the most noteworthy being the *Nunavut Economic Development Strategy* released in 2003. More recently, the creation of Socio-economic Monitoring Committees in all three regions has brought industry, government and communities together to monitor and discuss the socio-economic implications from resource development.

But for all its accomplishments, there are some failings within Nunavut's organisational capital that are becoming more pronounced. Those specifically associated with the Government of Nunavut were examined in depth through *Qanukkanniq? The GN Report Card*. In addition to its commentary on government, this Report Card offers great insight into the state of social capital throughout Nunavut.

In this section of the Outlook, we look at some of the results from this Report Card, social cohesion across Nunavut communities, and the government's action plan to improve well-being in Nunavut.

4.3.1 Qanukkanniq? The GN Report Card

The newest group of leaders in the Government of Nunavut took an unprecedented step when it took power by asking the public for a thorough critique of the government's past performance. This act in and of itself is a very positive sign from the government that it is committed to improving social cohesion in Nunavut. Throughout the summer of 2009, North Sky Consulting Group conducted a rather extensive community consultation. It asked people to respond to some simple questions:

*What is going right? What is going wrong and should be stopped? And, what should be improved?*³⁹

Complaining about government is a pastime in Canada, perhaps surpassed only by hockey and talking about the weather, so it is not surprising that the consultation process yielded a lot of interesting material. With the creation of the Government of Nunavut, Nunavummiut expected interaction with their own public government would improve over what they had with the Government of the Northwest Territories. Instead, the opposite is reported as being the case. For instance, many said that government has never seemed so distant. "[Nunavummiut] don't know who in government does what, who they might call for advice or direction, or whether anyone [in government] will answer their phone."⁴⁰ More damning, though, was the overall conclu-

sion that Nunavummiut believe strongly that general service levels have dropped over the last ten years.⁴¹

A principal finding from the Report Card is that a clear disconnect has emerged between the public government and its constituents. There were numerous reasons put forward as to why this has happened. Respondents identified communications as an area needing improvement. "Some said they now have less information about government initiatives and fewer opportunities to influence decision makers than with they had with the GNWT."⁴²

The reality of life in Nunavut is that government has a far greater influence in shaping the growth of society than one might find elsewhere. For Nunavummiut to achieve their ultimate goal of a high and sustainable quality of life, a well-functioning and responsive government is imperative.

The Report Card lists a great number of specific recommendations to achieve this. We have not evaluated those recommendations. From a higher-level perspective, however, there isn't any evidence to suggest the conclusions from the Report Card exercise were off the mark.

Reshaping government into an organisation that fits its own vision will require a considerable investment of time, effort and money. The Government of Nunavut cannot afford all of the fixes within its existing budget. For instance, if a part of the problem is that 868 positions within the government are vacant,⁴³ filling them will require, at a minimum, \$100 million in additional revenues. It would also require government to find qualified professionals interested in taking the positions especially those in decentralised communities or undertaking the hugely expensive option of educating and training unqualified individuals. It also doesn't address the financial cost of finding housing for new employees who must relocate to wherever the unfilled positions are located. This latter point applies equally for someone moving from within Nunavut as it does for someone moving from the south.

Investing in organisational capital is not just about money. What the Report Card has revealed, if it wasn't known previously, is that behind every challenge the Government of Nunavut faces in meeting its obligations to Nunavummiut lies a myriad of complicating and entrenched factors that need attention. In the example given above related to the unfilled government jobs:

Where is the balance in employing qualified personnel, training local labour to fill the position, and meeting representative employment targets?



How do you evaluate the costs, time, and service commitments associated with each of these choices?

The example of the Nunavut Housing Trust is a good one here. The organisation was established to oversee the construction of more than 700 public homes from the \$200 million received from the federal government. With that money, it chose to add training as an outcome from the investment, but didn't properly evaluate the cost of training and subtract that from the number of homes it would build. This decision was one of a number of contributing factors that caused a \$60 million cost overrun.⁴⁴ These dollars will now be subtracted from the budgets of other government departments, lowering their ability to service their own clients and improve in areas identified in the Report Card.

We understand that this was not the outcome the Nunavut Housing Trust intended, but for the future credibility of the Government of Nunavut, and from the standpoint of an organisation trying to improve its service delivery, these types of failures must be avoided. Instead, a decision should have been made at the earliest stage to favour one of the competing objectives of the program:

- Build fewer homes to allow for additional training, or
- Build the maximum number of homes possible given the budget.

The point here is not to suggest these are easy decisions. But rather, it is the job of the Government of Nunavut to identify the difficult choices and associated tradeoffs in a transparent manner and then make the necessary hard decisions if it is to improve its performance.

4.3.2 Social Cohesion in Nunavut Communities

The GN Report Card contains a wealth of information from Nunavummiut on their perspective on social conditions, community well-being and the state of the family unit across the Territory. Its survey of over 2,100 Nunavummiut confirmed a view expressed in the 2009 Throne Speech to the Nunavut Legislature:

“People believe we have lost our sense of purpose and belonging – our cultural connection to our land and to our families and communities and our balanced way of living life.”⁴⁵

The suggestion of a deterioration of social cohesion is a complex subject to understand, let alone understand in the context of public policies and investments in wealth-generating capital. The Territory was formed, in part, to allow Inuit to the opportunity to conduct their business in a

manner more appropriate to their own culture, values and aspirations. The Nunavummiut who responded to the survey suggest this has not happened.

Is it possible that the changes in the “cultural connections” mentioned in the Throne Speech are now permanent?

If so, when did they start?

We must assume these changes started years ago and are only now becoming more open or visible as more and more money is entering Nunavut creating a change within the balance of society.

Nunavut's leaders must find a way to balance the two worlds that coexist in Nunavut—one based on Inuit culture and traditions and another on western values and practices. It requires that mechanisms be established to address differences in values. The issue is not that everyone must have the same values but rather that there are acceptable means to resolve disputes, which includes disputes over policy decisions that are based on differing values.

Along the way, there will be trade-offs that must be made and not every negative outcome from these decisions can be fully offset through mitigation. For example, if Nunavut were to alter its approach to governance to one that is more deeply rooted in community self-reliance and sharing, what are some of the choices that Nunavut society could make?

- Does it mean new forms of income redistribution?
- Could there be greater support to community-based institutions, some of them informal?
- Does it mean public spending decisions are made in a completely different manner? For example, would a shift in goals from an employed labour force to a productive labour force change the way spending decisions are made?
- Could government itself be structured differently?
- Does it mean a new approach to delivering public programs or income support?

One could imagine any number of questions regarding the organisational structure and public policy choices Nunavut could take. These are complex subjects that require careful consideration as well as a strong commitment from within government and throughout Nunavut if definitive changes are going to be made. If we are to take the survey results from the GN Report Card as an accurate reflection of the current social climate, then there can be some certainty that some form of change is needed and that there will be Nunavummiut that will support the effort.



4.3.3 Tamapta

The Government of Nunavut's latest action plan, *Tamapta*, has been referred to several times in this report, and deserves special mention here in terms of its potential contribution to the development of Nunavut's organisational capital. It has some striking elements that make it a very unique and interesting document.

There are 11 priorities in *Tamapta*.

- Improve education and training outcomes
- Reduce poverty
- Connect our communities
- Increase housing options
- Increase support for culture and the arts
- Help those at risk in our communities
- Support community-based, sustainable economies
- Address social concerns at their roots
- Improve health through prevention
- Enhance our recognition in Canada and the world
- Strengthen the public service

There are already a number of new initiatives to address these priorities. For example, a Quality of Life Committee was formed at the Deputy Minister level to coordinate several activities such as those of the Nunavut Anti-Poverty Secretariat. In the section on health presented earlier, it was shown that Nunavut has two new strategies that focus on health prevention, healthy living and early childhood development. There was a pledge in this year's Throne Speech to see the Nunavut Heritage Centre built inside the four-year mandate of the current government. And of course, the GN Report Card discussed earlier was an important piece of research necessary for the government to establish how and where its public service must be improved upon.

Perhaps the most unique aspect of *Tamapta* is its focus on the fundamentals of public government; that is, health, education and social services. The economy barely receives a mention. As will be discussed later, Nunavut's economy is performing well and has a positive outlook. But *Tamapta* was created in 2009, a year when Nunavut's GDP fell by over 10 percent and the economic outlook was still uncertain. The government's response to the recession was to do things like establish the Quality of Life committee mentioned above. Given the circumstances, it would have been understandable had *Tamapta* focused on the economy exclusively.

This doesn't imply that government shouldn't be involved in the economy. Nunavut's economy is growing and will do so without any regard for the welfare of the local population. This is the nature of economic growth anywhere in the

world. For this reason, it is important that government has a role as intervener and regulator to ensure any change in the economy is beneficial for society.

But by-in-large, government can often achieve this through investments in good governance, establishing a clear vision for the future growth of the economy, being transparent, developing a knowledgeable and responsive bureaucracy, and creating programs that are fair and affordable. In Nunavut, there is the added benefit of the Nunavut Land Claim Agreement that establishes a clear set of rules and regulations on how development will proceed in the Territory, how and where Inuit are to be consulted, and the responsibilities of the developer when investing on Inuit owned land. The Government of Nunavut can afford to focus more on other areas because of this Agreement.

This year's Nunavut Economic Outlook shows that social objectives such as health, education, full employment, equity, diversity, inclusion, family well being and security still need government's attention. This was true in 2008 when the last Outlook was written, and remains true today. Nunavummiut must be ready, able and willing to participate if they are to benefit from economic growth. These are not outcomes that an economy can produce by itself. And right now, there are too many Nunavummiut who are **not** in such a position.

If the Territory is to achieve its goal of a high and sustainable quality of life, then the group who are presently unable, unwilling, or not ready to participate require attention.

Tamapta proposes a strategy based on investments in human and organisational capital—areas shown to be in need of investment. These are long-term approaches to development so we can't know today if they will produce the results we want. They must be flexible, require strong implementation plans and need clear and consistent monitoring. Most of all, they require a commitment from Nunavummiut and its leadership to see them through.

4.4 NATURAL CAPITAL

Natural capital includes the land, air and water present within a region. It also includes minerals, animals, fish and plants. A society's ability to access, exploit and preserve natural capital is important in its economic, social and environmental performance. Investments into natural capital typically fall into one of two categories.

1. Investments in the knowledge of natural capital:

This covers everything from geoscience and fisheries science to studies into climate change, caribou stocks and mercury levels in water, fish and animals. These



investments come from public and private sources. Investments in knowledge are discussed in this chapter.

2. Investments in the preservation of natural capital:

These investments are more common within the public sector and include investments municipal infrastructure such as waste, water and sewage management. Establishing parkland is also included here as is the clean-up of contaminated sites such as the DEW Line projects. Because these types of investments are also investments in physical capital and are associated with industrial activities, they are covered in other chapters in this report.

4.4.1 Climate Change and the Northwest Passage

The changing climate has many implications for Nunavut; from impacts on land and sea mammals, fish and vegetation to transportation modes, industrial development and physical infrastructure. For this edition of the Outlook, the focus will be on the marine shipping through the Northwest Passage and how it might change in the future including whether this will affect the quality of life of Nunavummiut.

While there may be some debate still on the causes of climate change, few people would argue against the evidence of global warming. In Nunavut, a prominent piece of evidence is the melting sea ice. Long ago, around the time European explorers were searching for a northern route to the Orient, there were areas of what is now known as the Northwest Passage where the sea ice would remain intact year round. Many explorers of that era would routinely spend more than a year trapped in the ice. Today, this is not the case, though mariners can still find themselves in predicaments due to the movement of ice.

The National Snow and Ice Data Center at the University of Colorado at Boulder measures ice conditions throughout the world. It reports the average ice extent for August was 5.98 million square kilometres, 1.69 million square kilometres below the 1979 to 2000 average, but 620,000 square kilometres above the average for August 2007, the lowest August in the satellite record. Ice extent remained below the 1979 to 2000 average everywhere except in the East Greenland Sea near Svalbard (see Exhibit 4-3).⁴⁶

The Center’s records date back 30 years. These records show the ice extent for August 2010 was the second lowest in the satellite record for the month. The linear rate of decline of August ice extent over the period 1979 to 2010 is now 8.9% per decade (see Figure 4-15).⁴⁷

Exhibit 4-3

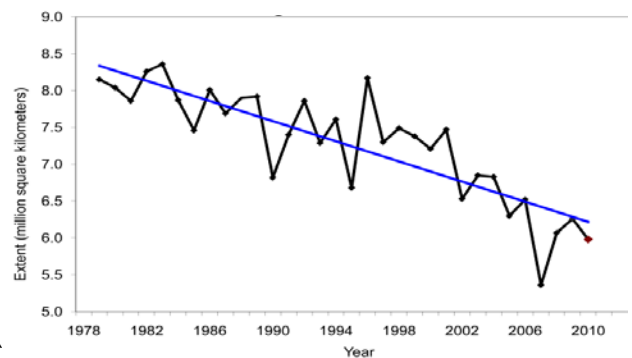
Sea Ice Extent, September 25, 2010
(total extent = 6.0 million km²)



Source: National Snow and Ice Data Center Arctic Sea Ice News and Analysis, September 25, 2010

Figure 4-15

Average Monthly Arctic Sea Ice Extent, August, 1979 to 2010



Source: National Snow and Ice Data Center Arctic Sea Ice News and Analysis.



This trend raises several questions related to Nunavut's economy. The first is:

Will the Arctic Ocean have an ice-free summer?

Research gathered by the Arctic Council for its extensive *Arctic Marine Shipping Assessment 2009 Report* can help answer this question. Included in the report's key findings are the following:

- Sea-ice model simulations indicate the possibility of an ice-free Arctic Ocean for a short period during the summer by mid-century if not earlier.
- This implies the disappearance of multi-year ice. In its place would be new ice that forms each winter which will be thinner and would melt faster.
- None of the models indicate an ice-free winter.⁴⁸

The next question, then, would be:

Will an ice-free Arctic Ocean open the Northwest Passage for increased marine transportation activities?

The Arctic Council reports that "it is highly plausible that there will be greater marine access and longer seasons of navigation ... but not necessarily less difficult ice conditions

for marine operations." Seasonal ice can be extremely hard making navigation almost impossible for even the largest ice breaking vessels. This will limit sailings to the late summer months. Year-to-year variability will be significant and in some years the new ice will not melt turning it into second-year and multi-year ice.⁴⁹ This is further confounded by the fact that, regardless of the route (see *Exhibit 4-4*) there are numerous narrow channels along the Northwest Passage. The variability and movement of ice will make navigation more hazardous and creates uncertainty for route planning and timing. The risk of delays due to ice will discourage most shipping companies from making this route a part of their fixed schedule.

There are other factors that might affect the number of transshipments through the Northwest Passage:

- The Northeast Passage that runs north of Russia has generally fewer ice issues and is a shorter distance between European and East Asian countries making it potentially more attractive.
- Regulations established by the Canadian government will influence interest in the route.
- Those regulations will be greatly influenced by Canada's sovereignty claims of the region.

Exhibit 4-4

Northwest Passage, open through the McClure Strait and the Southern Route (Admundsen), August 29, 2009



Source: Image: NASA Earth Observatory, August 29, 2009, (<http://earthobservatory.nasa.gov/NaturalHazards/view.php?id=18962>)



The existing evidence suggests the Northwest Passage will not soon become a major shipping route between Asia and Europe. But this doesn't mean there won't be an increase in traffic. The increase will come from several sources:

- Bulk carriers will use the route under special circumstances and when their schedule permits, especially in years where the ice extent is favourable.
- The number of cruise ships and adventure seekers will most certainly increase—already in 2010, the number of tourist-related boats in the Northwest Passage has almost tripled from the number in 2009.
- Resource development will also bring more ships to the Arctic Ocean. There is great interest in the vast store of minerals that lie beneath the sea ice and how its exposure will change the economics of the North. For the time being and for purpose of this Outlook, the resource development we are talking about are the numerous land-based gold, base metal and non-metal deposits found throughout Nunavut. These developments will require construction materials and seasonal resupply. Base metal mines will also need to ship out concentrate. Longer and more secure shipping seasons improve the economics of these deposits.

During the time when this Outlook was being prepared, there were two separate instances where ships became stuck on sand bars while navigating the Northwest Passage. Investigations are ongoing, but it is being suggested that the nautical mapping for the Northwest Passage is out-of-date. Should marine traffic increase in the coming years, the need for these maps will be critical. It is particularly important in situations where vessels are required to deviate from established routes because of ice or to avoid other marine traffic.

4.4.2 Natural Resources

4.4.2.1 Caribou

“According to government surveys and the observations of hunters, each of the three largest caribou herds in Nunavut has decreased in size by 30 per cent to 95 per cent over the last 15 years. What amounted to a total of more than 1.1 million caribou in 1995 has decreased to less than 400,000 today. Many other herds have similarly declined across Nunavut.”⁵⁰

The importance of caribou to Nunavummiut is well documented throughout the Territory. It is known that:

- caribou offer a nutritious substitute to store-bought food;
- caribou play an important part in Inuit culture and heritage; and,
- caribou contribute to the wage economy through tourism, outfitting, commercial harvesting and arts and crafts.⁵¹

Despite what is known about caribou and the role it plays in the lives of Nunavummiut, there is not enough scientific or empirical data or documented traditional knowledge to assist caribou management from the perspective of public programming and harvesting quotas. For instance, there is not enough known about harvest numbers, cost of harvesting and its economic value as a food replacement.

There is still some debate over the reasons for the decline in caribou populations. Commonly cited reasons include human encroachment, increased technology that has improved harvesting rates, increased population placing greater strain on the animals, climate change, and a rising wolf population.

There is also a shortage of quality survey work on the size of herds. Counting caribou is challenging for many reasons—including changing migration patterns, remoteness of herds, and the cost of equipment necessary in counting such as that of helicopters. It is also controversial. Inaccurate low counts can mean hunting restrictions that hurt the well being of communities, while inaccurate high counts can leave an endangered species without protection. Accurate counts are critical to our understanding of the severity of decline and appropriate conservation policies. Some recent statistics are presented in Table 4-9.

There are efforts to improve this empirical data. The Department of Environment lists ten research projects currently underway:

- North Baffin Island Caribou Collaring Project
- Distribution and Abundance of Caribou on Baffin Island
- Baffin Region Caribou Health Monitoring
- Beverly/Ahiak Herd Survey
- Qamanirjuaq Caribou Monitoring
- Southampton Island Caribou Condition and Disease Monitoring
- Beverly/Ahiak Vegetation Mapping
- Qamanirjuaq Calving Ground Predator Study
- Kitikmeot Vegetation Mapping



- Kitikmeot Caribou Condition Monitoring⁵²

Table 4-9

Status of Nunavut's Caribou Herds

Herd Name	Size (Year)	Status
Ahiak	200,000 (1995)	unknown
Bathurst	31,900 (2009)	declining
Beverly	"very few"(2008)	declining
Bluenose East	66,754 (2006)	declining
Qamanirjuaq	345,000 (2008)	declining
Southampton Island	15,452 (2007)	Declining
South Baffin*	60,000 to 180,000 (1980s)	no recent survey
North Baffin	-	-
Peary Caribou	8,000 to 15,000 (recent)	endangered‡
Dolphin & Union	-	special concern‡

Source: various sources including Government of the Northwest Territories, Government of Nunavut, Beverly and Qamanirjuaq Caribou Management Board,
 Note: *difficult to survey due to changing location of herd; ‡ COSEWIC designation

The Government of Nunavut released a draft Caribou Management Strategy in March 2010 in recognition of the importance of Caribou for the Territory and the concerns and uncertainties over the current and future population.⁵³

The Strategy proposes numerous action items and approaches to manage the 23 caribou herds throughout Nunavut. These action items are listed under five broad headings:

- 1) Information and Knowledge Acquisition
- 2) Working Together
- 3) Collaborative Decision Making
- 4) Environmental Stewardship
- 5) People and Caribou

The Strategy states that an implementation plan is not a part of the draft document and that this will be an important next step. The implementation plan is also unfunded. While some of the stated actions are activities already ongoing, the missing pieces are the expensive ones; that is, more investment in research and the opportunity costs associated with regulating resource development on the grounds of caribou management. The latter carries potentially enormous costs depending on where priority is given—to subsis-

tence harvesting, commercial harvesting, conservation, or resource development.

4.4.2.2 Fish

Nunavut is investing more money into fisheries science. The government will spend \$2.5 million on a 19.5 metre (64 feet) vessel to conduct fishery exploration. The majority of funding for this investment comes from the federal government's *Arctic Research Inventory Fund*.⁵⁴ The ship itself will be brand new and built in Newfoundland and Labrador, so the economic benefits extend beyond Nunavut's borders. The goal is to determine if and where commercially viable turbot and other marine species such as clams, scallops and kelp exist. That work is expected to begin in 2011.

In 2009, Pangnirtung Fisheries, the Canadian Northern Economic Development Agency, and Kakivak Association partnered to fund an exploratory inshore fishery in Cumberland Sound. That region has a turbot quota of 500 tonnes. That investment has yielded a more extensive fishery in 2010.⁵⁵ "The 2010 summer inshore turbot fishery will provide over 10 weeks of direct employment for local crew on board the 49 foot vessel, with an additional 13 weeks of employment generated at Pangnirtung Fisheries Ltd. Through this project, various training opportunities were created for Nunavummiut through engaging local community members as fisheries observers. These observers will also have the opportunity to train in the use of cutting edge technology in order to collect data on the marine habitat of potential harvest species."⁵⁶

The Government of Nunavut's Fisheries and Sealing Division within the Department of the Environment has also funded the Nunavut Coastal Resource Inventory.⁵⁷ This is Phase I of the project that began in 2007 as a Pilot Project in the Hamlet of Igloodik. The report produced in May, 2008 provides extensive data on

- archaeological sites,
- mammals,
- fish,
- birds,
- invertebrates,
- marine plants,
- areas of high diversity, and
- areas important for other reasons.

The data has been collected in the region surrounding Igloodik Island which is situated in the Foxe Basin off the northeastern coast of Melville Peninsula. Information was gathered through interviews, research, reporting and mapping.



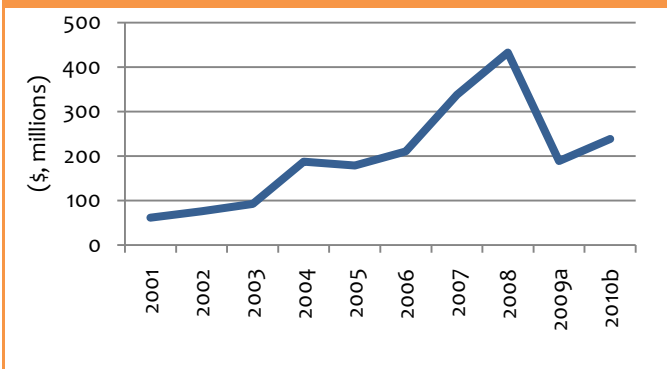
The results are meant to assist management, development and conservations of the coastal region.⁵⁸

4.4.2.3 Minerals

Expenditures in mineral exploration fell sharply in 2009 with the onset of the global recession. In the lead-up to that recession, expenditures on exploration and appraisals had reached a record annual high at \$432.6 million (see Figure 4-16). This was largely the result of the work at six sites, including Meadowbank, Izok Lake, Hope Bay, Meliadine, Kigavik and Mary River.

Figure 4-16

Mineral Exploration and Deposit Appraisal Expenditures, 2001 to 2010



Note: (a) preliminary estimates, (b) intentions
 Source: Natural Resources Canada, *Overview of Trends in Canadian Exploration Expenditures, 2009*

The setback brought on by the recession saw expenditures on mineral exploration fall to their 2006 level of \$200 million,

but expectations are for an increase in 2010. This should not come as a surprise to anyone who has watched the rebound in metal prices (see Figure 4-17). The price index fell by over 50 per cent from its peak in March 2008 to its low in February 2009, but in the 18 months since then prices have regained almost 75 per cent of their losses.

This latest rise in prices seems more secure than before and expectations should be for a continued interest in Nunavut’s mineral wealth. This will mean more money being spent on exploration across the Territory.

Figure 4-17

Monthly Metals Price Index, 2000 to 2010



Note: Index includes Copper, Aluminium, Iron Ore, Tin, Nickel, Zinc, Lead, and Uranium Price Indices

Source: International Monetary Fund



5 UPDATE ON NUNAVUT'S ECONOMIC PERFORMANCE

Key Highlights

- The Nunavut Economic Outlook continues to highlight the importance of the non-wage economy in contributing to the quality of life goals of Nunavummiut. However, the lack of knowledge in some areas does raise concerns that Nunavut will not be prepared should changes to the land-based economy come too quickly.
- Nunavut's wage-based economy grew by almost 20 per cent over the two year period 2007 and 2008, but suffered a major setback due to the 2009 recession.
- The greatest contributor to economic growth was the construction activities at the Meadowbank Gold Mine, which was not affected by the recession.
- The combination of the mine construction and construction of public housing and the continuation of other public infrastructure helped boost employment in 2007 and 2008. In 2009, however, a total of 300 jobs were lost in conjunction with the recession.
- The public sector has maintained its spending over the past several years, but is not growing in real terms (that is, after accounting for inflation). The recent revelations regarding the excessive spending by the Nunavut Housing Trust ensures any chance for an increase in the Government of Nunavut's budget is gone, at least over the short term.

5.1 TRADITIONAL ECONOMY

The non-wage or traditional economy has always been highlighted in the Nunavut Economic Outlook series, and for good reason. The traditional pursuits of Inuit such as hunting, fishing, and sealing and the production of clothing are hugely important to the quality of life of Nunavut residents. These activities contribute positively to the health, education, family, community, culture, and spirit of the Territory and are necessary for Nunavut's current and future prosperity and therefore should never be omitted from a discussion on Nunavut's economy.

However, it is a challenge to find new and relevant information for presentation in the Outlook. Rarely is there anything concrete to contribute regarding the participation of Nunavummiut in traditional activities or on the production of goods and services in the non-wage economy. Investments in scientific knowledge of natural capital have taken precedence over investments in collecting "western-style" information (data, survey work, etc.) on participation and production. This has created a knowledge gap in some important areas. For instance, food insecurity is becoming an increasingly important topic, but there isn't nearly enough good data on subsistence hunting to make it an informed

discussion. We still see research completed in the 1970s and 1980s that quantified the value of traditional activities being used today. It could be that users of this information don't realise it is out-of-date and potentially misleading or perhaps its users feel it remains accurate and investing the time and effort to collect new information is unnecessary.

It could be that in the past, counting the number of hunters, the size of the harvest, the cost of hunting, and the time spent on the land was considered unnecessary. It was simply taken for granted that most Inuit were active in these areas and that their subsistence needs were being met.

It is hard to argue that today. For one thing, as more and more Inuit enter the wage economy, the implications for participation in traditional activities and the overall production in the non-wage economy are far more profound. It is still important for these individuals and their families to be active on the land, but for those with full-time employment elsewhere, the reasons it is important might be changing.

Another issue is that, as seen in Section 4.4, there are real and growing concerns regarding the state of some animal populations in Nunavut, with the greatest concern being the fate of caribou. Many Inuit families would suffer if there were a ban placed on caribou hunting, especially those who



depend on the animal for their survival and who would slip into positions of extreme poverty without it.

The problem we see is that Nunavut's leaders may not have the necessary information to intervene effectively should conditions worsen and the number and success rate of hunters diminishes (which anecdotally we know is already happening). The implications for health, community well-being, and poverty from a financial perspective are not well understood. For example, we do not have a good estimate of the impact a hunting ban would have on the Government of Nunavut's social support programs.

The economic implications of any changes in the non-wage economy cannot be underappreciated. When it comes time to investigate this component of Nunavut's economy in conjunction with the Nunavut Economic Outlook, we become concerned when no new information is available—not just because it makes reporting on trends and their implications difficult, but because it means Nunavut has gone another year or two without recognising and preparing a response to a threat to the current land-based economy.

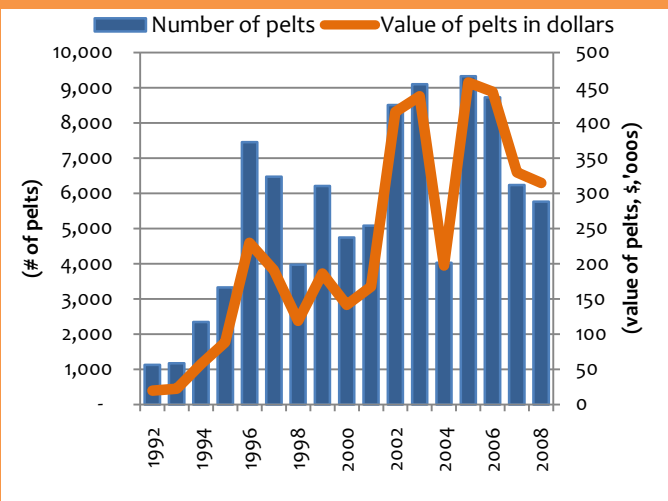
A timely example of this is the implications of the European Union's move to ban the importation of seal products. A court challenge by Inuit Tapiriit Kanatami and Inuit of Greenland has resulted in a temporary suspension of this action.⁵⁹ This was and continues to be a national story and the plight of Inuit who depend on the seal harvest for their subsistence and some supplementary income have been highlighted. But we never learned the extent of its importance from the Canadian media, perhaps because it is not known.

The data produced on the subject comes from Statistics Canada in its survey of fur production. In *Figure 5-1* we can see that Nunavut's seal harvest peaked in 2005, but fell off in 2007 and was just under \$315,000 in 2008. But this doesn't tell us much. The dollar value of pelts sold misses completely the real value of the seal industry in Nunavut. The money earned is most important for its role in deferring the cost of harvesting for the purpose of consumption and in its production of seal skins used in clothing and art. But it is not known precisely how many Inuit are participating in the seal harvest, the cost, or what seal meat represents for the overall diet of Inuit.

We might soon get a better understanding of the importance of the seal harvest, however. The Department of Fisheries and Oceans reported that the value of seal pelts dropped from over \$100 per pelt in 2006 to \$52 per pelt in 2007 and was just \$14 per pelt in 2009.⁶⁰ It could fall even

Figure 5-1

Nunavut Seal Harvest, Number and Value, 1992 to 2008



Source: Statistics Canada, CANSIM Table 003-0013

further in 2010 depending on the outcome of the EU's investigation into the legality of its proposed ban. With the skins essentially worthless to the international market, that source of income will not exist for Inuit and we will learn in time what this means to the subsistence harvest.

For the purpose of the Nunavut Economic Outlook and its audience of territorial leaders, decision makers, and other stakeholders, the full extent of impacts from the EU's seal ban would be good to know. It would also be useful to understand how many times worse the situation would be if instead of sealing, Nunavut were to lose its caribou harvest for a period of time. It is not inconceivable that something like that could happen, so Nunavut should at least be prepared if it does.

5.2 WAGE-BASED ECONOMY

Nunavut's expenditure data are presented in Table 5-1 to the end of 2008. Data for 1999 is presented for the purpose of comparison with Nunavut's first year of independence from the Northwest Territories. When taken together, the money spent in the Territory by consumers, government, and businesses constitutes the region's domestic demand. Adding exports, which is the spending from non-Nunavummiut on Nunavut's goods and services, and subtracting imports by Nunavut's consumers, government and business gives us GDP at market prices.

The economic growth that began in Nunavut in 2006, and that took hold in 2007, has been well documented. Real GDP

**Table 5-1**
Nunavut's Real GDP at market prices, expenditure-based, 2004-2008
 (\$, millions chained (2002) prices)

	1999	...	2004	2005	2006	2007	2008
Personal expenditure on consumer goods and services	354		460	477	495	521	547
Durable goods	17		28	31	33	36	39
Semi-durable goods	39		53	55	59	63	68
Non-durable goods	105		124	125	126	131	133
Services	192		255	265	277	292	309
Net government current expenditure on goods and services	710		819	888	896	898	869
Government gross fixed capital formation	104		123	93	114	162	153
Structures	92		107	74	92	136	126
Machinery and equipment	14		16	22	24	25	28
Business gross fixed capital formation	172		297	349	322	589	914
Residential structures	38		20	20	21	28	29
Non-residential structures	92		217	253	232	430	671
Machinery and equipment	45		60	78	70	137	235
Domestic Demand	1,340		1,699	1,807	1,827	2,170	2,483
Exports of goods and services	239		176	154	184	216	210
Deduct: Imports of goods and services	794		908	961	1003	1262	1464
Net Exports	-555		-732	-807	-819	-1046	-1254
Gross Domestic Product	783		989	996	1027	1129	1233
<i>Economic Growth</i>			4.1%	0.7%	3.1%	9.9%	9.2%

Source: Statistics Canada CANSIM Table #384-0002

rose 9.9 per cent in that year, followed by 9.2 per cent real growth in 2008. Most of this increased growth can be attributed to construction activities at the Meadowbank gold mine, which cost approximately US\$600 million by the time it was completed in January, 2010.⁶¹

Spending on new social housing contributed to a rise in government's economic contribution in 2007 of 5 per cent, but by 2008 this stimulus had peaked. Government's real contribution to GDP that year was a net decrease of 3.6 per cent. Consumers held steady during the two years of expansion,

growing their real purchases by 5.3 per cent and 5.0 per cent in 2007 and 2008 respectively.

5.2.1 Nunavut's Domestic Economy

Chapter 2 introduced some of the problems encountered when using GDP as a measure of society's progress. The results from Table 5-1 further highlight some of these problems. For example, while real GDP grew by almost 10 per cent in both 2007 and 2008, most of this growth occurred in the Kivalliq region and more specifically near Baker Lake. Nunavummiut living in that region were the central benefac-



tors of the increased GDP. Subtracting this project from the data gives you a better idea of the economic growth in the rest of Nunavut and paints a different picture for those communities untouched by resource development.

When looking specifically at domestic demand, it is also important to consider the amount of imports including materials, equipment, engineering and labour that went into the US\$600 million project.

Table 5-1 does not contain data for 2009.⁶² But we know from other economic indicators that wage-based activities were scaled back that year. While construction at the Meadowbank Mine continued, most other private-sector investments came to an abrupt end. Government spending was supported by federal stimulus including recession-targeted money and an announced \$100 million addition to the Nunavut Housing Trust. It is unlikely that these additions to Nunavut's public purse would have been enough to generate real growth in government spending for 2009. It is also highly probable that spending on consumer goods and services were scaled back. However, employment outside mineral development remained firm throughout the year and the extensive local hiring at Meadowbank were enough to keep real consumer spending moving higher.

5.2.1.1 Consumer Spending

In 2008, Nunavummiut raised their overall spending on consumer goods and services by 5 per cent after adjusting for inflation. The greatest gains continue to be made in the purchase of durable and semi-durable goods. This growth comes in part from new job creation, a growing middle class and a rise in the number of new housing units. Spending on non-durable goods such as on food and gasoline is less susceptible to large year-over-year changes since most consumption in this area meets basic needs. Spending on non-durable goods rose 1.5 per cent. Growth in consumer spending over 2008 closely matches the average growth for the past ten years (see Table 5-2).

Retail sales data are available up to June 2010, giving us good insight into consumer activities in 2009 and 2010 (see Figure 5-2). One would expect to see the affects of the recession in these data. Household income and spending are closely correlated. And while not overly dramatic, there is a noticeable change in the rate of sales growth beginning in 2009 (see Figure 5-3 and Figure 5-4). Retail sales grew by 3 per cent that year; a far more modest growth rate than the 8.6 per cent posted a year earlier.⁶³ Early indications are that

growth in 2010 will be closer to 2.2 per cent; this despite the fact that there are signs of job recovery.

Table 5-2

Growth in real consumer spending, percentage change

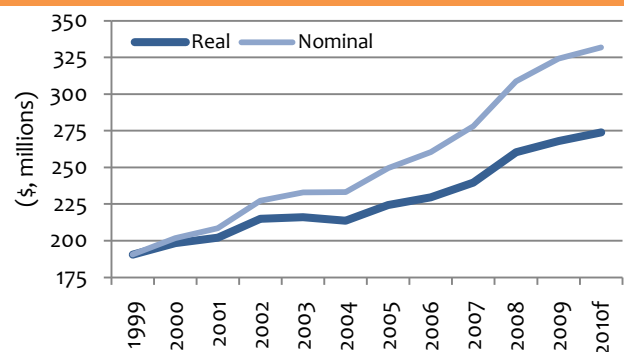
	2008	Since 1999*
Durable goods	8.3%	9.7%
Semi-durable goods	7.9%	6.4%
Non-durable goods	1.5%	2.7%
Services	5.8%	5.4%
Total	5.0%	5.0%

Source: Statistics Canada CANSIM Table #384-0002.

Note: * compounded annually

Figure 5-2

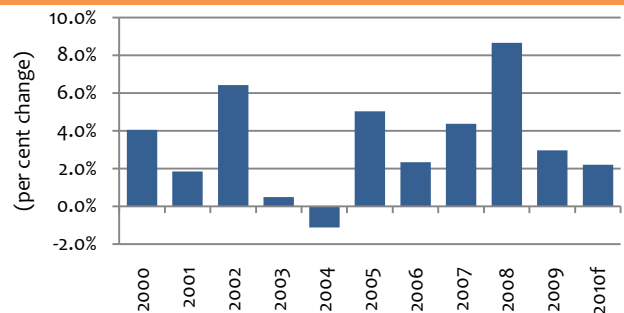
Retail Sales, 1999-2010



Source: Statistics Canada CANSIM Table o80-0020.

Figure 5-3

Annual Change in Retail Sales, 2000 to 2010



Source: Statistics Canada CANSIM Table o80-0020.



5.2.1.2 Employment

It comes as no surprise that job numbers were down in 2009 (see Table 5-3). The recession that began in the second half of 2008 brought an end to the exuberant job growth in mineral exploration and development. By the end of that year, activities at Mary River, Izok Lake and Hope Bay were scaled back leaving nothing more than skeleton crews performing care and maintenance and a minimal amount of development work. These three sites alone shed upwards of 400 to 500 employees from the fall of 2008 to the spring of 2009, which contributed to the 300 jobs lost over the year as reported by Statistics Canada's *Labour Force Survey*.

Table 5-4 on the following page shows the recession was equally difficult for Inuit labour as non-Inuit.

Figure 5-4

Growth in Personal Disposable Income and Retail Sales, 1999 to 2010

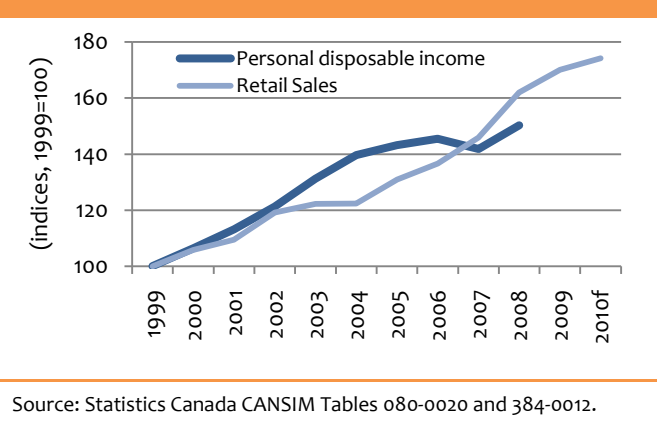


Table 5-3

Labour Market Activity, 2004 to 2009

	2004	2005	2006	2007	2008*	2009*
Total population aged 15 and over	13,600	13,700	13,800	14,100	18,600	18,600
Labour force	8,600	8,600	9,100	10,000	11,500	11,200
Employment	7,400	7,500	8,200	9,100	10,100	9,800
Unemployment	1,100	1,100	900	900	1,400	1,400
Participation rate (%)	63.1	62.5	65.9	70.6	61.9	60.2
Employment rate (%)	54.4	54.7	59.4	64.5	54.3	52.7
Unemployment rate (%)	13	12.5	10.3	8.9	12.5	12.7

Source: Statistics Canada, *Labour Force Survey* CANSIM Table #282-0055

Note: * as of 2008 the Labour Force Survey included 19 Nunavut communities representing 92 per cent of the population. Prior to this date, the survey included 10 communities and approximately 70 per cent of the population. While one should not compare the results of the two surveys, one can see that the drop in unemployment rate from 8.9 per cent in 2007 to 12.5 per cent in 2008 that occurred in part because of the expanded survey shows how comparatively worse off these smaller communities are in terms of their employment situation.



Table 5-4

Labour Market Activity (Inuit Population)

	2004	2005	2006	2007	2008*	2009*
Total population aged 15 and over	10,100	10,200	10,300	10,600	14,700	14,700
Labour force	5,600	5,600	5,900	6,700	8,000	7,600
Employment	4,500	4,600	5,100	5,800	6,600	6,400
Unemployment	1,000	1,000	900	800	1,400	1,300
Participation rate (%)	54.8	54.3	57.2	63.1	54.1	51.9
Employment rate (%)	44.6	45.1	49.5	54.7	44.9	43.5
Unemployment rate (%)	18.4	17.2	14.4	12.3	17.2	16.8

Source: Statistics Canada, Labour Force Survey

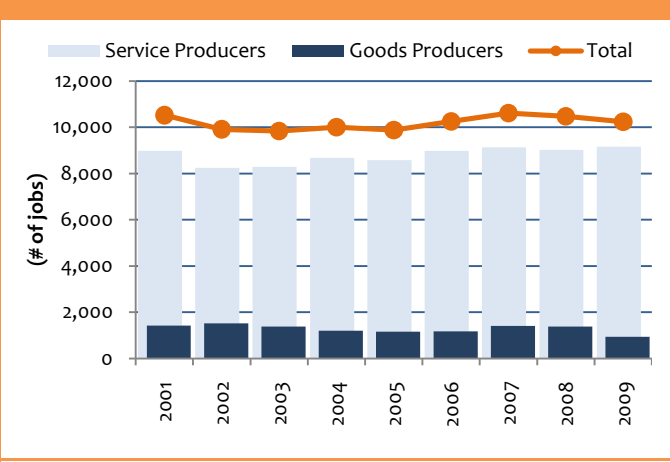
Note: * as of 2008 the Labour Force Survey included 19 Nunavut communities representing 92 per cent of the population. Prior to this date, the survey included 10 communities and approximately 70 per cent of the population.

It should be emphasized that job losses that occur in mining or construction do not equate to the number of Nunavummiut losing their jobs since the workforce in these sectors includes a large percentage of southern workers. By the same account, when these sectors create jobs, they are rarely filled with Nunavummiut alone.

Reflecting on 2009, one might ask why the number of jobs lost by Nunavummiut was not higher, especially in light of the slowdown in the resource sector. There are several reasons. The number of jobs at the Meadowbank construction site grew in 2009 as the project neared completion while at the same time jobs were added in the latter half of the year as mine operations began in advance of the official production start date. The public sector also came to the economy's rescue by creating over 230 public administration jobs (see Table 5-5 and Figure 5-5).

Figure 5-5

Survey of Employment, Payroll and Hours, 2001 to 2009



Source: Statistics Canada CANSIM Table 281-0023.

Table 5-5

Jobs by Sector, 2007 to 2009

	2007	2008	2009
Goods-producing	1,410	1,383	938
Service-related (excl. PA)	6,059	6,146	6,052
Public Administration	3,069	2,872	3,104
Total	10,611	10,470	10,241

Source: Statistics Canada CANSIM Table 281-0023.

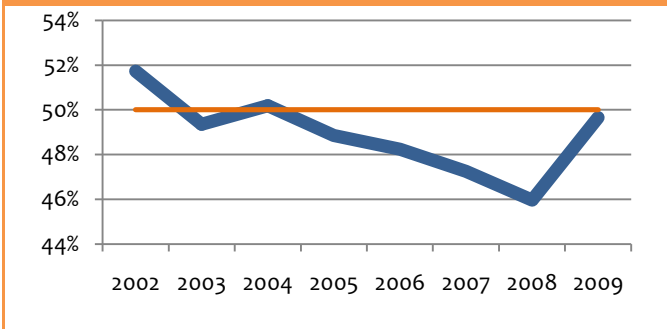
Government also plays an important stabilising role within the Nunavut economy. Public administration, health care and education related employment represents more the half of all jobs in Nunavut. But if we look at how this share of the job market has changed in the past few years (see Figure 5-6 on the following page), the decline in 2008 has more to do with public-sector lay-offs, which totalled close to 200 that year, than it does with job growth elsewhere in the economy. This is the opposite from what we saw in 2006 and



2007, when job growth in the private sector was responsible for the declining share of public-sector employment.

Figure 5-6

Public Sector's Share of Nunavut Employment, 2002 to 2009



Source: Statistics Canada CANSIM Table 281-0023.

Note that these data are not from the Labour Force Survey, but rather from Statistics Canada's *Survey of Employment, Payroll and Hours* (SEPH). Nunavut's Labour Force Survey expanded its survey base beginning in 2008 to include 19 communities representing 92 per cent of the population. Prior to that, the survey was limited to the 10 largest communities and approximately 70 per cent of the population. The change means results from 2008 and onwards cannot be compared the latest Labour Force Survey results to previous years.

The SEPH database also provides a more detailed breakdown of employment between sectors. The reliability of these data does deteriorate as the sample size decreases. And while SEPH data should not be compared to that from the Labour Force Survey, one should expect the two to return similar results and offer a reasonable assessment of trends, which they do.

5.2.1.3 Government Spending

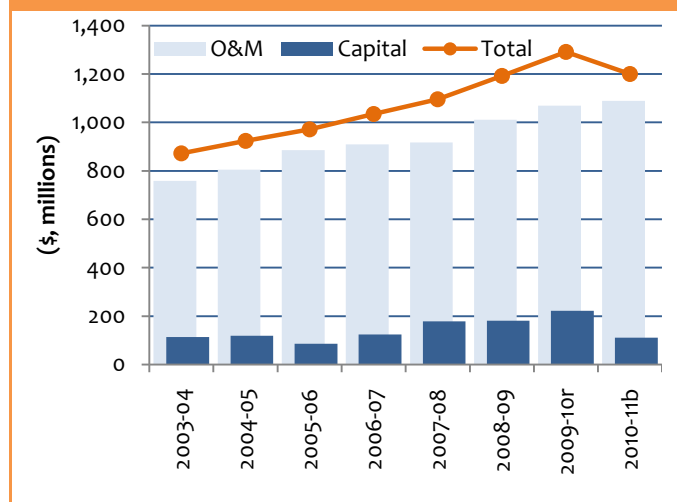
We have seen how government is the great stabiliser for Nunavut's economy. This is a benefit for a region whose economy would otherwise be dependent primarily on resource development and thus subject to swings in world demand and prices. The recent recession has shown how this plays out. The economy shed 300 jobs in 2009 which is approximately a 3 per cent drop. The economy itself fell by a

far greater amount at 10.6 per cent. The stability provided by government employment ensured job losses were minimized.

As stable as the public sector is, it is still subject to some deviations. The Government of Nunavut has introduced a budget for the current fiscal year (2010-11) that includes a 7.1 per cent reduction in spending—all of which will occur within the capital budget that will fall from \$223 million in fiscal-year 2009-10 to \$111 million in the current fiscal year (see Figure 5-7). This is not the first time fiscal retrenchment has been introduced in a GN Budget, but it is likely to be the first time the decrease in spending will actually materialise despite an anticipated 6.6 per cent increase in transfers from the Territorial Formula Financing Agreement (TFF) and the Canada Health and Social Transfer (see Table 5-6).

Figure 5-7

Government of Nunavut Budgetary Spending, 2003-04 to 2010-11 (fiscal years)



Source: Government of Nunavut, Dept of Finance *Main Estimates*.

As is the case with any analysis of spending, it is important to consider the effects of inflation. Government has seen the price of its purchases (combining labour and capital) increase by approximately 40 per cent since 1999, with the greatest jump occurring in 2008. That was year when oil prices spiked having a significant impact on the purchasing power of Nunavut's budget. It is not too surprising then to see the real value of its expenditures fall back that year (see Figure 5-8). This decline is not expected to persist, though one should not expect years of strong growth either.



Table 5-6

Federal Transfers to Nunavut (\$, millions)

	2005-06	2006-07	2007-08	2008-09	2009-10	1010-11*
Canada Health Transfer	22	23	24	26	27	28
Canada Social Transfer	10	10	11	11	11	11
Territorial Formula Financing	821	844	893	944	1,022	1,091
Total Transfers	853	877	928	980	1,060	1,130
Transfers per capita	28,017	28,366	29,591	30,854	32,811	34,451

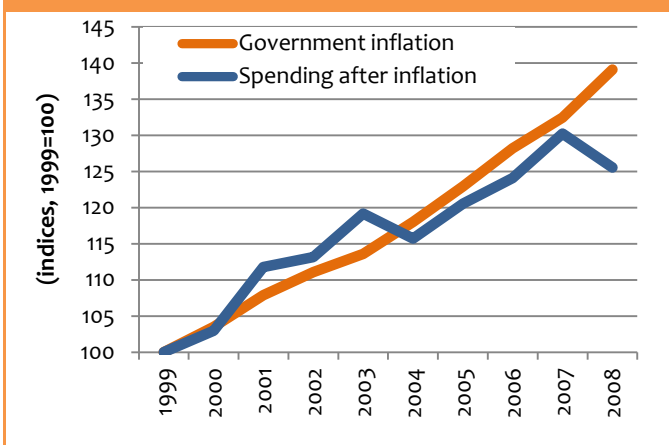
Source: Finance Canada *Major Federal Transfers*

Notes: Nunavut received \$2.5 million in 2008-09, \$10.3 million in 2009-10 and will receive \$5.5 million in 2010-11 to strengthen financial management. Does not include non-cash transfers, direct targeted support, or trust fund transfers. Totals may not add due to rounding and are subject to regular revision. CST cash includes transition protection payments for 2007-08 and 2008-09. TFF includes a one-time adjustment of \$2 million in 2006-07 and data revisions of \$22 million in 2005-06 and \$18 million in 2006-07.

* 2010-11 includes a forecast of population growth in addition to the projected transfers

Figure 5-8

Government Spending and Inflation, 1999 to 2008



Source: Statistics Canada CANSIM Table 384-0002 and 384-0036.

Note: This spending represents all levels of government, including federal, territorial, municipal, Aboriginal, and defence.

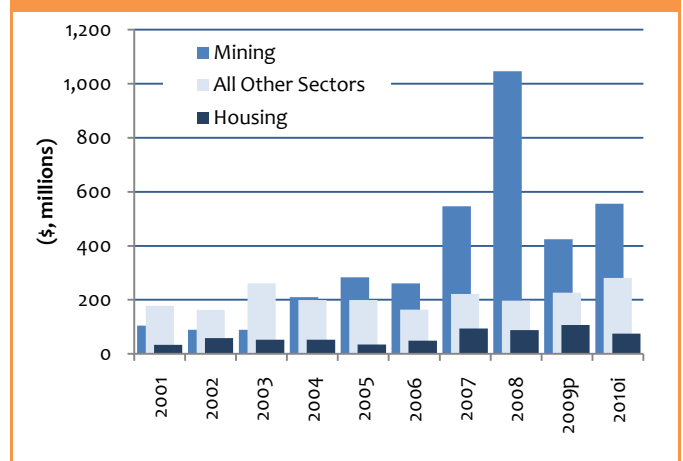
5.2.1.4 Capital Spending

The build up within the mining sector is apparent in Figure 5-9. The 2008 Nunavut Economic Outlook discussed this rise in great detail. At that time, there were no fewer than six projects well on their way to being developed, including deposits at Hope Bay, Izok Lake, Meadowbank, Meliadine Lake, Kiggavik, and Mary River. The spike in spending in 2008 was led by construction activities at the Meadowbank Gold Mine, but there were other exploration, engineering

and bulk sampling activities contributing to this growth. A look at the figure for 2009 is a good indication of how much the activities at these other deposits were contributing to the Nunavut economy.

Figure 5-9

Capital Spending throughout Nunavut, 2001 to 2010



Source: Statistics Canada, *Private and Public Investment Intentions in Canada, 2010 and past reports*, Catalogue no. 61-205.

Note: p = preliminary estimate, i = intentions

The spending intentions for 2010 are up over 2009 preliminary estimates. Construction activities at the Meadowbank Gold Mine will continue through the first half of the year, with much of the remaining spending divided between other

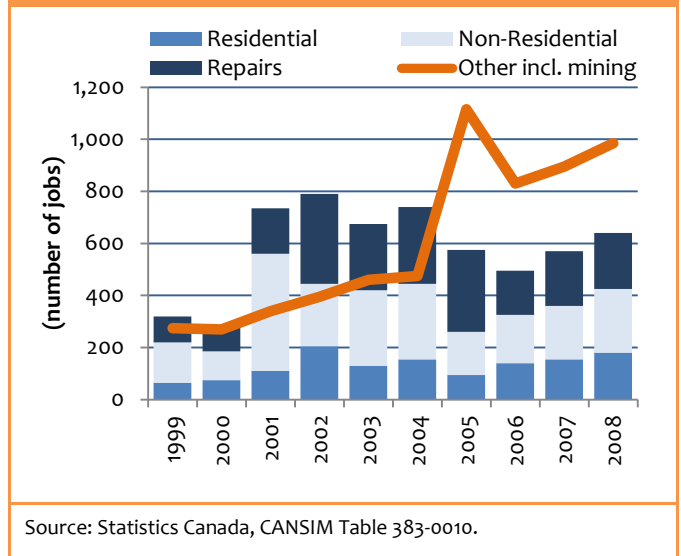


mineral exploration projects, including the Kiggavik Uranium Project, the Meliadine gold properties, Newmont Mining’s Hope Bay gold fields, and Mary River. There is a newcomer to the exploration scene for this Outlook: a diamond project in southeast Baffin Island called Chidliak. Interest in this property soared in 2009 after some initial exploration returned favourable results. More detailed exploration is now underway.

A large portion of the overall capital spending ultimately goes toward the purchase of imported building materials, fuel, and machinery and equipment. Much of what remains pays for labour (see *Figure 5-10*). In 2005, the capital spending for the Jericho Diamond Mine resulted in a spike in construction employment. The investment in housing by Nunavut Housing Trust has raised the number of jobs in residential construction since 2007. And of course the investments at the Meadowbank Gold Mine and other resource development sites have contributed to the overall workforce in Nunavut’s construction industry

Figure 5-10

Employment in Construction, 1999 to 2008





6 ECONOMIC OUTLOOK

Key Highlights

- The world entered a recession in 2008. This had numerous implications for Nunavut's economy. However, through it all, the economic outlook remains strong.
- The federal government is now operating in the deficit position. This will result in a reduction in specific-purpose transfers. Nunavut could avoid some of the cutbacks because of the current government's heightened interest in the North and Arctic sovereignty.
- The population and demographic changes anticipated in this year's Outlook have many implications for the Territory, especially for government's education, health and housing programs.
- While the population is not growing at a pace once thought, the persistently high fertility rates combined with a large cohort of children 0 to 15 will mean the annual number of child births will remain above 800 for much of the forecast, while the number of people over 60 will more than double.
- Nunavut's economic data will be shaped by the life cycles of four or five mining project over the next ten to fifteen years. All of these projects are located in the Kivalliq or Kitikmeot regions. These projects will fulfil those region's economic objectives. But without mechanisms to improve labour mobility, individuals in communities outside the geographic reach of these developments will be unable to participate.
- Nunavut's construction forecast is also affected by the events in the mining sector. These construction jobs come at a crucial time when government projects are expected to decrease. The challenge is to get more Nunavummiut onto these construction sites and develop a supporting business sector.
- Nunavut's fishery has implemented its five-year comprehensive investment strategy which is paying dividends in terms of greater infrastructure, improved knowledge, trained labour, and stronger organisations. The challenge now is to find new and inventive ways to get more Nunavummiut involved in the actual fishing.
- Tourism and arts are small components of Nunavut's economy if measured through GDP exclusively. If one considers other measures such as the contribution to culture, diversity, community health and productivity, then these sectors can be seen as extremely important. These two aspects of Nunavut's economy should grow over the next five to ten years as both invest in greater organisational and physical capital.



The 2008 Nunavut Economic Outlook took an aggressive approach in establishing a forecast for Nunavut. It assumed that the six most advanced mining projects in the Territory would proceed to development on a schedule close to what was envisioned by their respective owners. The lack of prudence in the forecast was intentional. It provided the details necessary to study the socio-economic consequences of a “full-growth scenario” for Nunavut’s economy. We could then determine whether there were any gaps in Nunavut’s capacity to absorb this growth.

There were important conclusions from that research that affect this year’s forecast. The 2008 Outlook concluded that:

- All economic objectives would be met. Within ten years, there would be near-full employment, the growth would be enough to bring even the most reluctant Nunavummiut into the workforce, training opportunities would exceed needs in areas of industrial development, and the value of Nunavut’s production would have doubled and perhaps tripled from what it is today.
- At the same time, there was far less certainty in how other aspects of Nunavummiut quality of life would fare. Communities would likely become overwhelmed by the magnitude of change. This would manifest itself in a number of ways, exposing social and cultural vulnerabilities and a lack of community support mechanisms.

These conclusions led to important questions,

“Would the proceeds from the rapidly-expanding economy strengthen Nunavut’s vulnerabilities, improving coping and adaptation skills of Nunavummiut in their new socio-economic landscape?”

Or, would the deterioration of other quality of life factors overwhelm Nunavummiut to a point where the financial benefits are overshadowed by the social cost and where future economic growth was compromised?”

The Nunavut Economic Outlook continues to investigate this question and possible approaches and investments in wealth-generating capital that would ensure the outcomes from economic growth are largely, if not entirely, beneficial.

In this chapter of the Outlook, we investigate the economic growth possibilities more carefully on a sector by sector basis. This should help demonstrate where the future opportunities lie and where the pressure points will come from for Nunavummiut. This is set up by a look at global and Canadian economic trends and a detailed investigation into the future demographic changes anticipated for the Territory and their implications for the population. An overall forecast of this growth is presented in conclusion.

While the forecast is an important component of the Nunavut Economic Outlook, one should not focus exclusively on the statistics. The rise or fall of GDP does not in itself tell us much about the changing quality of life of Nunavummiut or the sustainability of those changes. The science of economics is moving increasingly toward methodologies that put the importance of GDP in the correct context alongside other equally important components of our well-being. For our part, the Outlook aims to give equal emphasis to the human impacts arising from economic growth as it does to the size and scope of the GDP growth.

6.1 CANADIAN AND GLOBAL CONTEXT

Nunavut is located in a remote region within Canada. But this does not mean it is isolated from the Canadian or world markets. Nunavut is as much a part of the global economy as any other region or nation. The impact of the recession has made this apparent to everyone.

In the two years leading up to the fall of 2008, Nunavut’s economy was in the midst of its first real period of growing prosperity since the Territory was created. The onset of the global recession brought this to an end. Investment capital dried up and work at several resource projects was suspended as their economic viability was re-evaluated. This rise and fall of Nunavut’s economy had almost everything to do with the rise and fall of the world demand for raw materials, and very little to do with the actions of Nunavummiut.

One would be right to argue that the land claim that covers the entire region and distinguishes Nunavut from Canada’s other Territories is a factor for exploration companies looking for investments. In that sense, the actions of Nunavummiut have influenced mineral development and can influence the manner in which business proceeds and can optimise outcomes.



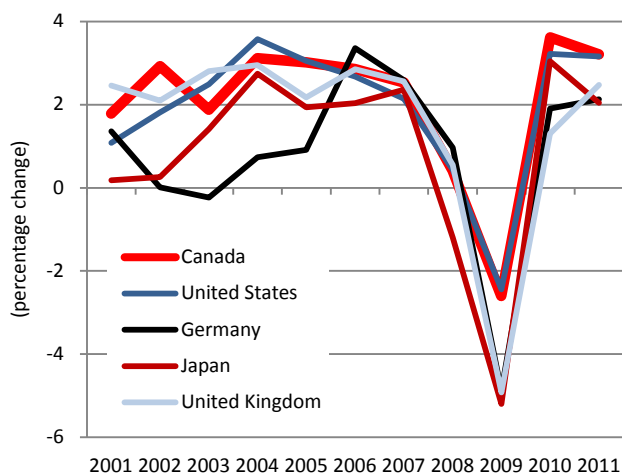
Nunavut imports most of its consumer goods such as fuel, food, clothing, building materials, machinery and equipment and exports such things as gold, fish and fur. It is a price taker for all of these products—meaning the region’s supply and demand for them does not alter the world price. Nunavut does have some control over the supply of Nunavut-specific products such as Inuit art and to a smaller extent Arctic char and wild meats such as muskox and caribou, but these products make up a small portion of the Nunavut economy. Moreover, substitutes for these products are produced elsewhere limiting the extent to which their price can be controlled. It is therefore important to understand some of what is taking place in the national and international economies.

6.1.1 World Economic Trends

Figure 6-1 contains the recent economic growth of some of the larger economies in the world alongside that of Canada. It shows that over the past five years all have experienced similar economic growth. All entered the recession together, and all look to be emerging from the recession in 2010. There is agreement across most international organisations, including the World Bank, the International Monetary Fund, and the Organisation for Economic Cooperation and Development (OECD), that Canada will outperform the average across all OECD countries as it did in 2009 during the worse periods of the recession.⁶⁴

Figure 6-1

Trends in World Economic Growth, 1992 to 2011



Source: Organisation for Economic Cooperation and Development, Economic Outlook no. 87, Annex Tables.

The possibility of a second recession does exist, principally because of a potential decline in the recovery in the United States, but also because of some fiscal difficulties transpiring within the European Union, most notably in Greece. Inconsistent monthly economic data from the United States is keeping this fear alive. Nunavut will have to watch closely to see whether the so-called double-dip recession takes hold. Should it occur, Nunavut’s private-sector development might be able to persevere given the strength in the price of gold. Where Nunavut would suffer would be through the negative impacts a second economic slowdown would have on the larger Canadian economy, which would negatively impact the federal government’s fiscal position that could result in a reduction in overall spending in Nunavut. (At the time this Outlook was in production, the likelihood of a second recession was decreasing).

6.1.2 Canadian Fiscal Position

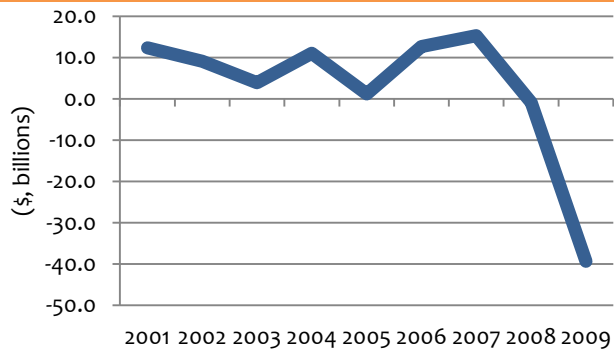
The federal government’s decision to move into a deficit position in 2009 was a much discussed and debated topic last year (see Figure 6-2). The decision was made around the world that governments would increase spending in order to lessen the severity and length of the recession. But because the Canadian economy and banking sector were in relatively good positions, there was a debate whether Canada needed the stimulus and if so, how much stimulus did it need. In the end, the federal government overspent by \$53.8 billion for the fiscal year 2009-10 and put forth a budget for the current fiscal year that showed expenditures would exceed revenues by \$49.2 billion. It was also announced at that time that the government would remain in a deficit position for the next four years.⁶⁵ With Canada’s economy performing well, it is possible a surplus could be achieved one year earlier, so long as the spending projections remain intact.

Some perspective is needed to understand Canada’s fiscal situation. Canadians have become accustomed to federal surplus budgets. The last recorded federal deficit was in the late 1990s. The surplus budgets combined with a strong economy have brought the debt ratio from over 70 per cent in the mid-1990s to where it is now (see Figure 6-3). This has put Canada into a strong fiscal position. By the end of 2007, Canada’s federal net debt was below 25 per cent of the country’s GDP. This is in stark contrast to the performance in other countries over the same time period, and in particular,



Figure 6-2

Federal Government's Net Operating Balance

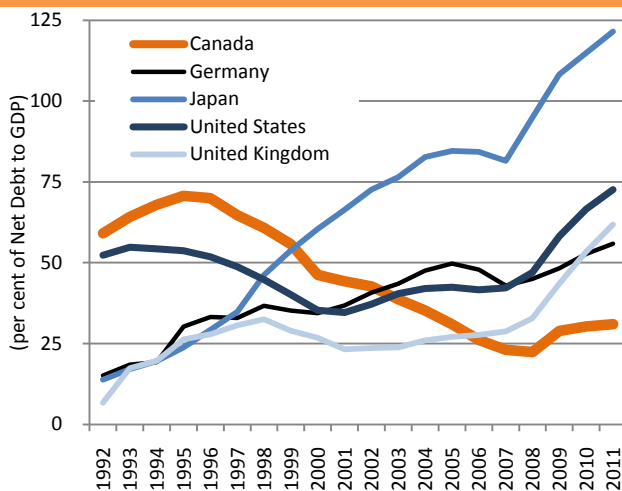


Source: Statistics Canada CANSIM Table 385-0032.

that of the United States. Canada's relatively strong fiscal position entering the recession means that this new debt is manageable and that a second period of repressive fiscal retrenchment, such as Canadians experienced in the early and mid-1990s will not be necessary. This should give Nunavummiut some reassurance that any decline in federal spending, should it occur, should be small and short lived.

Figure 6-3

Net Fiscal Position of Selected National Governments, Net Debt to GDP, 1992 to 2011



Source: Organisation for Economic Cooperation and Development, Economic Outlook no. 87, Annex Tables.

6.1.3 Arctic Sovereignty

The heightened interest in Arctic sovereignty should mean more federal spending in Nunavut. But as noted earlier, it is not yet clear what the federal government's heightened interest in Arctic sovereignty will mean for Nunavummiut.

The federal government's Northern Strategy outlines Arctic sovereignty as one of its four areas of interest, along with the environment, social and economic development and governance.⁶⁶ Any ongoing or new programs with a focus on the territories are now considered part of this broad strategy. Falling under the Arctic sovereignty heading include the creation of a Canadian Forces Arctic Training Centre in Resolute Bay, refurbishment of the Nanisivik port facility to accommodate a military presence, investments in military and coast guard icebreakers, and amendments to the Arctic Waters Pollution Prevention Act. Exhibit 6-1 contains a full list of the actions that have been listed under the sovereignty heading.

The Nanisivik Naval Facility will be primarily a docking and refuelling facility. After some delays in construction, it is anticipated that operations will commence by 2013 with construction continuing through 2015. Current cost estimates for the facility are \$100 million.

The investments in the training facility and the port will provide indirect benefits to Nunavummiut in that an increased military presence can mean some dollars enter the communities of Resolute and Arctic Bay. More direct benefits will require cooperation on the part of the Department of National Defence and the affected communities. There should be opportunities for mutually beneficial infrastructure, some arrangements on transportation of goods, and participation of the civilian population in labour needs of the military. Spending on military equipment will have remote benefits to Nunavummiut, as will changes in legislation. The greatest impact of all will be determined well into the future when the whole issue of Arctic sovereignty and rights over the Northwest Passage are settled.



Exhibit 6-1

Northern Strategy: Sovereignty

Strengthening Our Presence

- › \$720 million to procure a new Polar Icebreaker – the CCGS John G. Diefenbaker
- › Procuring new Arctic/Offshore Patrol Ships
- › Expansion and modernization of the Canadian Rangers
- › Establishing a Canadian Forces Army Training Centre in Resolute Bay
- › Establishing a deep-water berthing and fueling facility in Nanisivik
- › Launching RADARSAT II satellite
- › Ongoing military exercises and surveillance operations such as Operation Nanook

Enhancing our Stewardship

- › Providing strategic meteorological information and navigational data in key zones to facilitate the safe management of marine traffic in the Arctic (Budget 2010)
- › Introducing new ballast water control regulations
- › Amending the Arctic Waters Pollution Prevention Act
- › Making reporting mandatory for all vessels under NORDREG

Defining Our Domain and Advancing Our Knowledge

- › An additional \$40 million over four years to fund scientific studies to determine the full extent of Canada's continental shelf as defined under UNCLOS

Source: Government of Canada, *Recent Northern Strategy Commitments*. (www.northernstrategy.ca)

6.2 POPULATION OUTLOOK

The population forecast is a critical component of the overall economic outlook. It is the basis for determining the base-line demand for consumer goods and services, jobs, government services and community infrastructure. The transfer received by the Government of Nunavut through its Territorial Formula Financing Agreement with the federal government is, in part, tied to the population base. The demographic profile within a population provides information on the specifics of these demands, such as the need for education services and health care. It is also the determinant for household formation and thus the future needs for public and private housing.

In Chapter 4, Nunavut's demographic profile was presented. In this section, the components of population growth are analysed along with the impacts of changes to this profile over the forecast period.⁶⁷

6.2.1 Natural Rate of Growth

The fertility rates of Nunavummiut women are the highest in the country. Current statistics show that they will typically

have 3 children in their lifetime. Across Canada, the national average is closer to 1.6. As was discussed in Chapter 4, it is the high rate of births amongst the 15 to 24 age cohort that really separates Nunavut from the rest of the country.

There is some question as to how long Nunavummiut will remain at this fertility rate. The long-held assumption has been that these rates will decline slowly over time as they have in southern Canada and within many First Nation communities. This assumption has not yet shown itself to be correct. Over the past 10 years in Nunavut, the fertility rate has remained virtually unchanged.

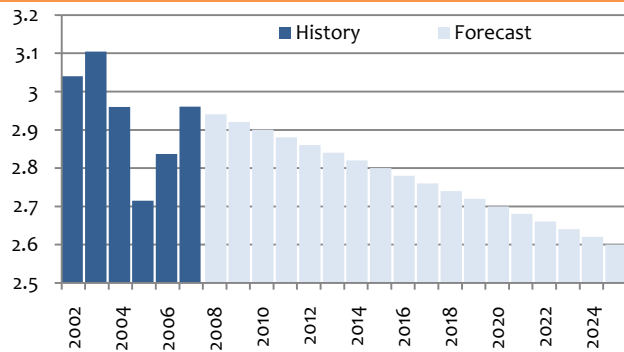
Nevertheless, the demographic forecast in this Outlook has maintained the assumption of a declining fertility rate; albeit at a very conservative rate of decline. From 2010 to 2025, the average number of births per female will decline from its current level to 2.6 (see *Figure 6-4*). The new level will be achieved largely by a reduction in teen pregnancies and smaller decreases in pregnancies for women in their 20s. For women aged 30 to 39, it is possible that we will see a slight rise in child birth over the 15 year time frame (see *Figure 6-5*). This will occur when women postpone having a family in order to complete their education and start a career much like what happened in Canada throughout the 70s, 80s and



Figure 6-4

Fertility Rates in Nunavut, 2002 to 2025

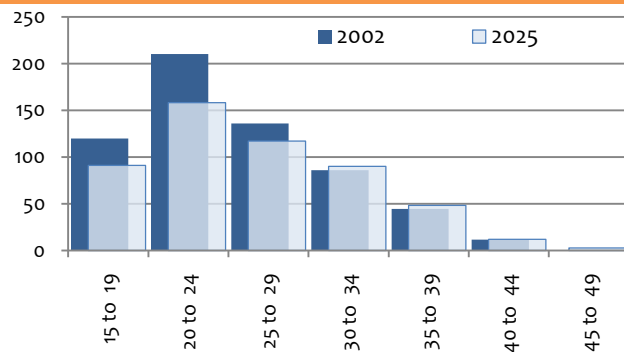
(average number of children born per female in her lifetime)



Source: Statistics Canada, Demography Division, Impact Economics

Figure 6-5

Projection of Number of Children Born in Nunavut by Age Cohort of Women, 2002 and 2025



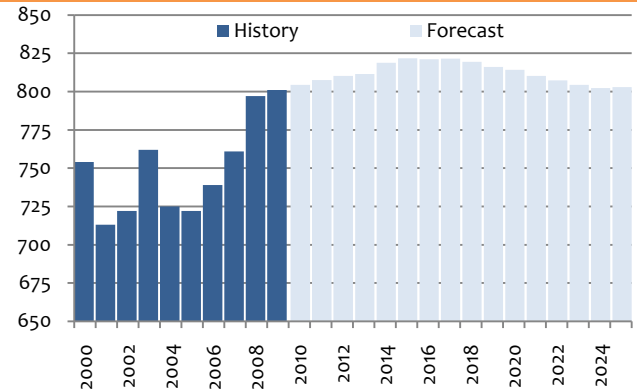
Source: Statistics Canada, Demography Division, Impact Economics

90s. At 2.6, the fertility rate is still well above the national rates, but is more in line with today’s national Aboriginal fertility rates.

The result of this diminishing fertility rate will be the eventual decline in the number of children born in Nunavut. However, this is still many years away. Recalling *Figure 4-3* from Chapter 4, the largest cohort of females in Nunavut presently are between the ages 0 and 14. Therefore, even if their tendency to have 3 or more children is reduced, the fact that there will be more females of child bearing age in the near future will mean the number of births in Nunavut will remain above 800 for the rest of this decade (see *Figure 6-6*).

Figure 6-6

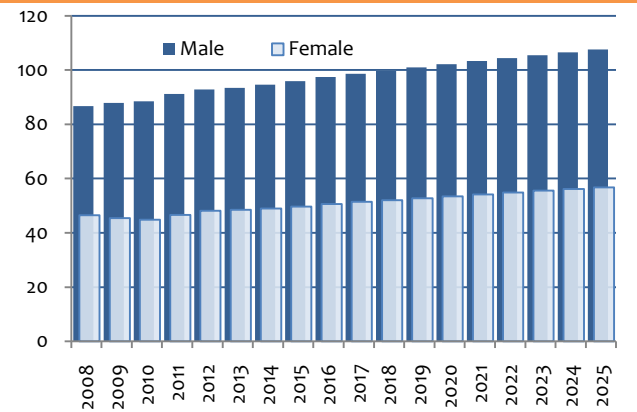
Total Number of Births, 2000 to 2025



Source: Statistics Canada, Demography Division, Impact Economics.

Figure 6-7

Projected Number of Deaths, 2008 to 2025



Source: Statistics Canada, Demography Division, Impact Economics.

Projecting life expectancy for Nunavummiut is challenging in that the current sample size of older residents is very small. Also, one would expect the rate of infant deaths, which is extremely high in Nunavut, will decrease over time though the pace of this decline is not easily determined. For these reasons, the current statistics on life expectancy by age cohort are maintained over the forecast period (see *Figure 6-7*). The small number of elderly in Nunavut also means that this assumption will not affect the population forecast should life expectancy improve over the next 15 years.



6.2.2 Migration

The original Nunavut Economic Outlook included a forecast of population growth what would now be considered very optimistic. At that time, it seemed reasonable to predict the number of Nunavummiut would reach 43,000 by 2020. What the last ten years have taught us, however, is that Nunavut (much like the Northwest Territories) consistently loses more residents to other regions of the country than it gains. Since 1999, there have been three years in which this has not been the case: 2000; 2001, and 2002. In the seven years since then, Nunavut has been a net exporter of residents.

There is little to suggest a change in this trend over the forecast period. If one believed that migration was driven by economic activity alone, then 2007 and 2008 should have seen a positive net migration when the economy grew by almost 20 per cent. This didn't happen. Since the end of 2002, Nunavut has exported a total of 1,260 people. There has not been enough research into this outflow of Nunavummiut to determine the factors influencing migration. It is worth noting that, based on Census data, the outflow of Nunavummiut is evenly distributed between Inuit and non-Inuit residents. As of 2009, Nunavut Tunngavik Inc. reported that 1,454 beneficiaries were living outside Nunavut.

Major project development could slow the rate of out migration. But again, this assumes that migration is driven by

economic activity alone. One can look at the experience of the Northwest Territories to understand this is not the case (see *Exhibit 6-2*). Its economy rivalled that of Alberta's over the past ten years, and yet that Territory has averaged a net loss of almost 400 residents annually, with only two years in the last ten where the number of arrivals outpaced that of departures. The challenges the Northwest Territories has had in retaining residents are likely factors for Nunavut as well. Cost of living, few housing options (especially outside Iqaluit), distance from family in southern Canada, weather and isolation are all prominent factors.

A final factor to consider and one that will become more and more prominent over the forecast period is the out migration of seniors and those approaching retirement age. The forecast for Nunavut's population includes an assumption that most non-Aboriginal Nunavummiut will retire in southern Canada. It remains to be seen how many Inuit will do the same. But with a growing number of Inuit now living in the south, that option may become increasingly attractive over the next 20 years.

It is for these reasons that net migration will remain negative, on average, for the entire forecast period. While there will be some variation during this time period, the average net loss of residents will equal 150 annually.

Exhibit 6-2

Out Migration in the Northwest Territories

The NWT Bureau of Statistics conducted a comprehensive survey of diamond mine employees in the spring of 2009 on behalf of De Beers Canada Inc., Rio Tinto, BHP Billiton and the territorial government. "The survey focused on things diamond mine employees like and dislike about their current community of residence, factors they consider when thinking about relocation and barriers to moving to the Northwest Territories."

One of the more interesting results from the survey showed 44.6 per cent of mine workers currently residing in the NWT stated they were likely or very likely to leave the Territory in the next year should an opportunity to do so arise. A majority (64.3 per cent) of these people cited the cost of living as the number one factor. Other prominent considerations included wanting a change, the weather, and a desire to be closer to family. Other important highlights from the survey include:

- closeness to family and friends is the most critical factor in considering one's residency, followed by financial considerations such as cost of living, cost of housing, etc.;
- with increased education comes greater mobility and increased interest in the intrinsic benefits to relocating such as recreational opportunities;

Of those mine workers not considering relocation to the NWT, the main reasons cited included that they like their home community and were concerned with the cost of living in the NWT and the length of winters.

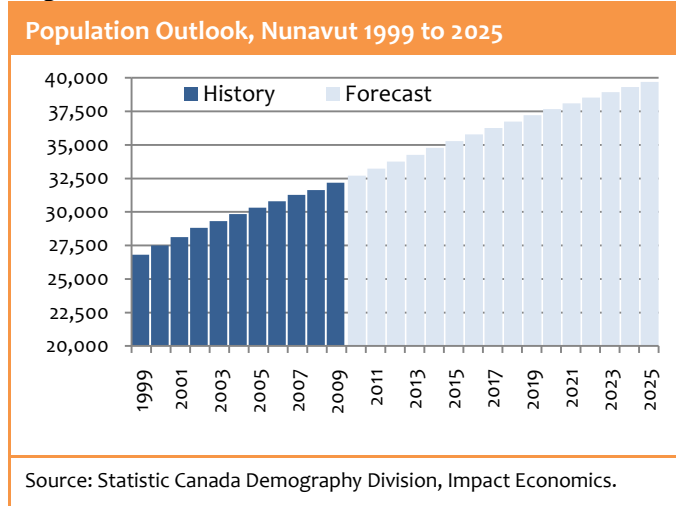
Source: NWT Bureau of Statistics, 2009 NWT Survey of Mine Employees, August 2009.



6.2.3 Population Projections

The assumptions on fertility and mortality rates and migration were entered into the Nunavut Demographic Model. It calculates that the population will grow to 39,703 by 2025 (see Figure 6-8).

Figure 6-8



Perhaps most interesting is how this change in population will alter the demographic profile of the Territory. Figure 6-11 on the following page displays the population pyramid from 1999 compared with that of 2025.⁶⁸ Some points to consider when viewing this figure:

- Fertility rates are expected to remain well above the natural replacement rate which is the rate needed to maintain the population at a constant level over time. It is slightly higher than 2 children for every female because it accounts for early and/or accidental deaths. The high fertility rates will prevent a “bust” generation from appearing over the next 15 years.
- There are some assumptions embedded in the demographic model to bias the migration patterns based on age. Every year, approximately one thousand people migrate away from Nunavut and almost as many move to Nunavut. Over the forecast period, the annual difference is a negative 150 people. However, the people leaving do not necessarily have the same demographic profile as the people entering. The differences in age, gender, education, marital status and ethnicity of these migrants can have a significant impact on the overall composition of the population.

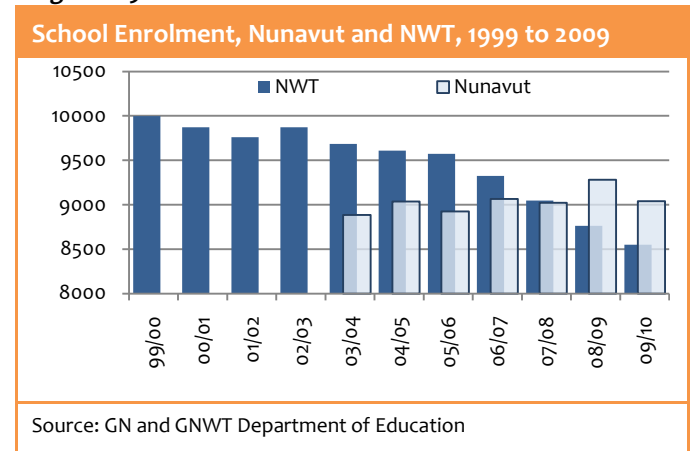
6.2.4 Implications of Demographic Changes

The changes to Nunavut’s demographic profile will have numerous implications for the Territory, its economy and its government. In this section, age-cohort specific statistics are presented.

6.2.4.1 Education

Nunavut now has more students enrolled in school than does the Northwest Territories; this despite the fact that Nunavut’s overall population is three-quarters the size (see Figure 6-9).

Figure 6-9



However, Nunavut is producing far fewer graduates (see Figure 6-10). This can be explained in part by the distribution of students. Nunavut has more students enrolled in lower grades and therefore not ready to graduate. The remaining discrepancy is the result of lower graduation rates.

Figure 6-10

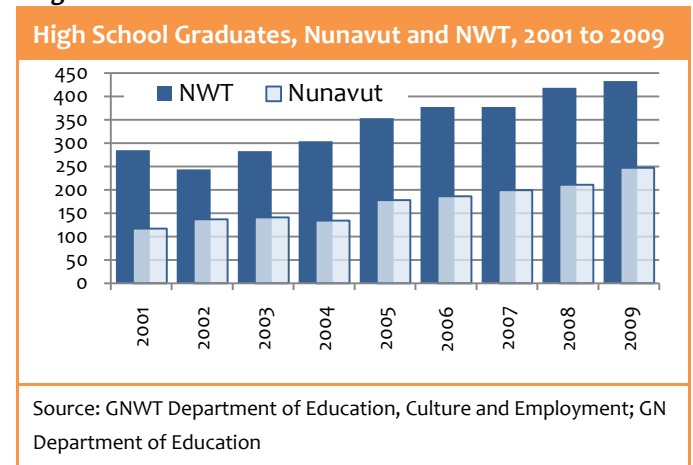
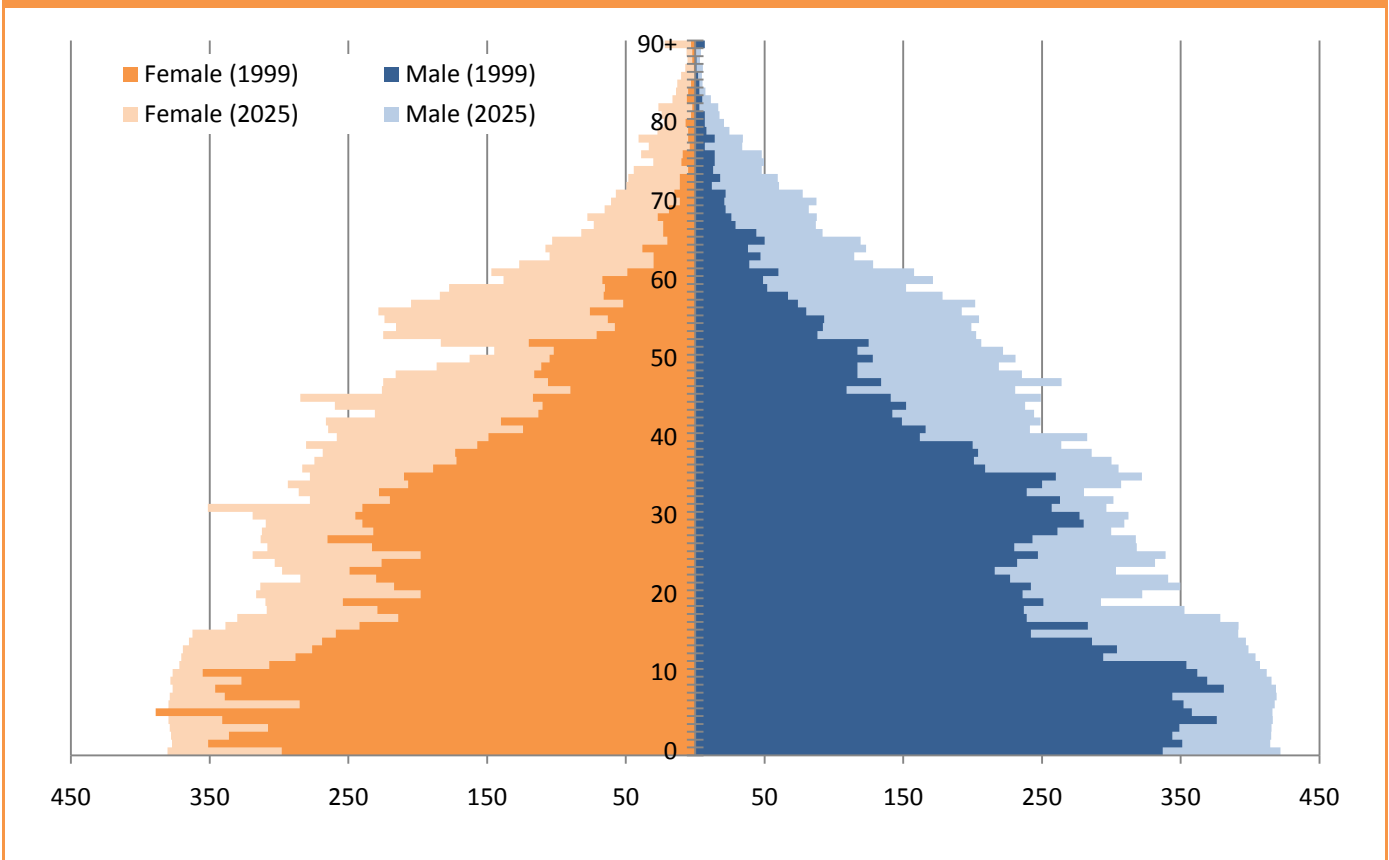




Figure 6-11

Population Pyramid, Nunavut, 1999 and 2025



Source: Statistics Canada Demography Division, Impact Economics.

Looking ahead, the number of school-aged children in Nunavut (those between the age 5 and 18) will grow from its 2009 level of 9,353 to 10,438 in 2025 (see Figure 6-12). Extending the analysis an additional five years to 2030 brings us to the peak year when the number of school-aged children living in Nunavut will be just shy of 11,000. The rising number of children represents a growing challenge for the Department of Education’s budget, while the need to improve performance is obvious.

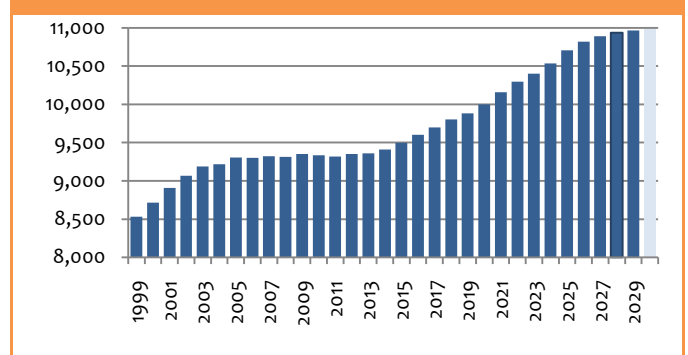
6.2.4.2 Health

Nunavut’s relatively young population translates into lower demand for treatment services than what would be found in other Canadian jurisdictions that have a much higher proportion of the population over 60 years of age. Nevertheless, as shown in Figure 6-13, the actual number of Nunavummiut over 60 years of age will more than double by

2025. This will result in increased demand for community health and social supports both in the home and in

Figure 6-12

Nunavummiut Aged 5 to 18, 1999 to 2030



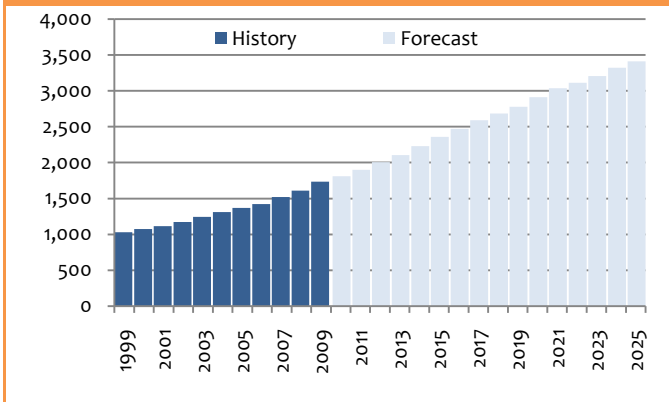
Source: Statistics Canada, Demography Division, Impact Economics



residential settings. Like other jurisdictions in Canada, Nunavut decision makers will need to consider how best to support a growing elderly population and their informal caregivers (e.g., family members) who are the backbone of any support system.

Figure 6-13

Nunavummiut Aged 60 and over, 1999 and 2025



Source: Statistics Canada, Demography Division, Impact Economics

Furthermore, the increasing population of people over 60 years of age will put pressure on the health system to treat and manage more people with chronic illnesses (e.g. diabetes). Nunavut is not alone in this respect and will likely benefit from best practices developed in other jurisdictions where the pressures are more immediate. But any measures put in place now to reduce the future burden of chronic disease will be a worthwhile investment.

6.2.4.3 Labour Force

The changing demographic pattern has implications for Nunavut’s labour force. The number of Nunavummiut aged 15 and older (considered the source population for the labour force) will grow from 21,868 in 2009 to 27,874 in 2025. If one were to assume that participation rates remain at their 2010 level which has been 65 per cent on average, then the labour force will increase by almost 3,900 over this same period. To keep the unemployment rate at its 2009 level of 16.8 per cent would require that 3,250 new jobs be created between now and 2025.

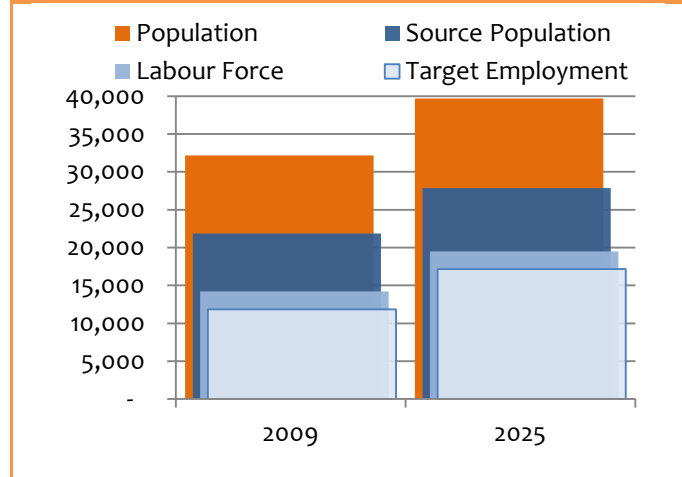
This analysis might seem somewhat backwards. We typically think of economic growth and job creation in terms of demand. The point here though is to demonstrate what the supply of labour will be, which can be interpreted as the demand from Nunavummiut for employment. It begs the question:

“Where in Nunavut will these jobs be created?”

The need for a larger economy is more apparent if we add to the analysis some modest improvements, with the participation rate climbing to 70 per cent and the unemployment rate falling to 12 per cent. Under this more optimal scenario, the labour force would grow by 5,300 in the next 15 years and would require that 5,340 new jobs be created (see Figure 6-14).

Figure 6-14

Growth in Demand for Jobs by Nunavut’s Labour Force



Note: 2025 assumes participation rate of 70% and unemployment rate of 12%.

Source: Statistics Canada, Impact Economics.

The challenge for Nunavut is to raise the level of economic activity that would create enough jobs. Certainly, government will not be an instrument of growth of that magnitude, so it will depend on the growth in the private sector.

Of course, the first Nunavut job market that should be exploited by the local workforce is the one currently filled by job tourists; those work crews that come to Nunavut to complete specific projects. This is most common within the construction industry where the productive season is short and the list of projects is long. There are simply not enough trained Nunavummiut to fill all the needed jobs, but it is an area where many jobs could be found for new entrants into Nunavut’s workforce.

6.2.4.4 Housing

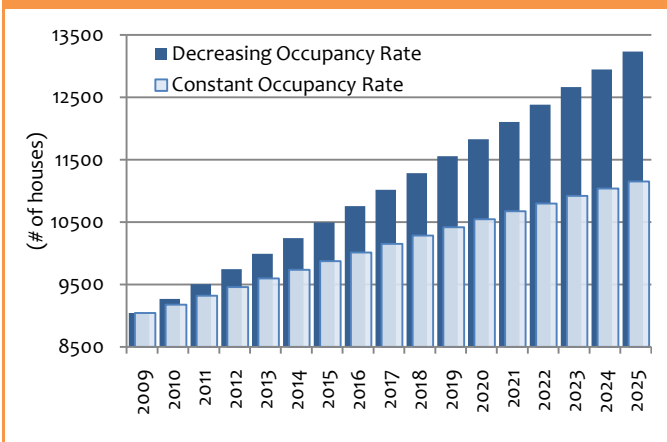
As of 2009, 52 per cent of Nunavut’s population were under the age of 24. Fertility rates are very high for the younger cohorts. Put together, we know that the number of young families will grow at an increasing rate for the next 20 years.



This means an increasing rate of household formation and thus a greater demand for housing (see Figure 6-15). By 2025, the number of housing units in Nunavut could grow to almost 10,842 from its existing stock of 9,041. If Nunavut were to reduce its occupancy rate over time—for example, should it decrease to 3.0 people per dwelling from its current level of 3.6—then the projected number of homes needed by 2025 would grow to 12,866.

Figure 6-15

Projected Demand for Housing Stock, 2009 to 2025



Note: decreasing occupancy rate refers to a gradual decline in the rate to 3.0 persons per home.

Source: Nunavut Housing Corporation, Impact Economics.

Exhibit 6-3

Demand and Cost Projections for Public Housing

- Nunavut’s population will approach 38,600 by 2025.
- Assume that the Territory maintains its current public housing occupancy ratio of 54 per cent and that the overall occupancy rate remains close to 3.6 people per dwelling.
- Under this scenario, the number of public houses owned by the government will increase from 4,183 to 5,855 by 2025.
- This will require the annual construction of approximately 110 new units at a cost of \$36 million per year (assumes per unit cost of \$325,000).
- And using today’s prices and current O&M costs, these homes will cost the Government of Nunavut \$130 million in maintenance fees alone on an annual basis.

The majority of these needs cannot be met through the provision of social housing. At some point, Nunavut will no longer be able to afford the cost associated with building and maintaining an ever increasing stock of houses (see Exhibit 6-3). And even if Nunavummiut want this number of public housing units, it must be reiterated that the current build rate is based entirely on federal government specific-purpose financial support. It is not prudent to assume these funding programs will continue indefinitely especially in the face of the Government of Canada’s current fiscal deficit.

6.3 GDP: A REVIEW OF THE DATA

Table 6-3 presents Nunavut’s real gross domestic product (GDP) from 2005 to 2009 as well as 1999. A close look at the changes in 2009 show that the 10.6 per cent decline in real production was largely attributable to a \$120 million drop in construction. Most of this decline is the result of a single project—the construction of the Meadowbank Gold Mine, where expenditures peaked in 2008.

The full stop at many of the Territory’s mineral exploration camps beginning in the latter half of 2008 can be seen in the decline in mining in 2009 which includes exploration activities. This number will jump in 2010 as Meadowbank goes into full production.

The changes in government spending are also noteworthy in that there has been virtually no change for a number of years. This contribution won’t improve in 2010.

Otherwise, there is little to say about Nunavut’s economy for 2009. It was a recession year and as one might expect during a recession, the economy provided few highlights.

This will not be the case moving forward, however. We can expect the next several years to be much more interesting. The mining sector will take on its new shape, the fisheries will look to increase its inshore activities and explore the commercial viability of new species, tourists will become more numerous aboard cruise ships bound for the Northwest Passage, the construction industry could be shaped by several major infrastructure projects should they proceed, while the arts industry could benefit through its improved organisation and increased activities.


Table 6-1
Nunavut's Real GDP at Basic Prices, 2005 to 2009

(\$, millions, chained (2002) prices)

	1999	...	2005	2006	2007	2008	2009
Fishing, Hunting and Trapping	0.3		0.6	0.5	1.7	2.5	2.1
Mining and Exploration	89.6		7.3	19.4	24.1	15.3	8.6
Utilities	24.3		19.1	18.9	19.7	20	20.7
Construction	62.8		143.8	141.2	213.5	293.7	174.1
Manufacturing	1.2		1.5	2	1.7	1.5	1.1
Goods-producing Industries	178.2		172.3	182	260.7	333	206.6
Wholesale Trade	7.3		12.9	14.7	18.4	26.2	21.4
Retail Trade	35.6		44.9	47.5	49	51.7	51.3
Transportation and Warehousing	28.1		17.7	16.4	16.8	18.5	17.6
Information and Cultural Industries	x		36.4	39	40.1	42.1	42.4
Finance, Insurance, and Real Estate	104.3		157.6	161.2	166.5	173.9	179.7
Professional Services	8.1		10.7	11.1	11.4	11.3	11.4
Administrative and Support Services	7.6		11.7	13	13.1	13.5	13.7
Education Services	x		104.1	107.2	111.9	116.3	119
Health Care and Social Assistance	69.3		84.5	86.1	86.8	86.9	87.3
Arts, Entertainment and recreation	x		1.5	1.3	1.3	1.3	1.3
Accommodation and Food Services	16.6		19.4	18.6	19.7	20.6	19.9
Other Services (except public administration)	10.1		16.8	15.6	16.2	16.4	16.5
Public Administration	179.7		274.5	277.5	278.2	274.9	274.6
Service Producing Industries	x		792.7	809.2	829.4	853.6	856.1
Gross Domestic Product at Basic Prices	751.3		956	983	1,081	1,177	1,052
<i>Economic Growth</i>			1.0%	2.8%	10.0%	8.9%	-10.6%

Source: Statistics Canada, CANSIM Table 379-0025. Note: 'x' denotes data has been suppressed.

6.4 MINING OUTLOOK

The 2008 Nunavut Economic Outlook described the risks associated with Nunavut's mining outlook. Apart from the Meadowbank Gold Mine, which is now operating, there isn't a single deposit in Nunavut that is 100 per cent guaranteed to be developed, though some show much greater prospects than others. Determining which project to include in the forecast depends on the market conditions and the known extent of the deposit. But even with perfect information, changes in world demand or exploration results can cause a project to be fast-tracked or delayed. Projections of GDP and employment based on mine openings must therefore be viewed with some caution.

We include mining projects in the forecast in order to understand how social and economic performance will change and where public policy intervention might be necessary to improve benefits and limit negative impacts. For example, knowing the near- to medium term labour requirements of a project can direct education and training courses. In another example, having a reasonable projection of economic development helps communities understand how the demand for infrastructure will be affected, whether or not there will be in migration, and what consequences that might have on community services. It is far better that a community is over prepared or that its investments are two years ahead of the project's schedule and not two years behind. From the per-



spective of society as a whole, ignoring a project can mean important policy debates don't take place which can leave government unready for the changes that will occur and further affects public perceptions of government's leadership.

The other risk described in the 2008 Outlook dealt with the effect of a mining boom on social inclusion and the potential deterioration of Nunavut community well-being. At issue is the rise in income disparity that is a guaranteed outcome of economic growth and the possibility that community cohesion could suffer in the face of rapid economic and social change. The modernisation that will take place in communities through rapid economic change tends to erode social ties. At the same time, both the perception and the reality of new inequalities are most likely increasing while the social institutions that might otherwise help people understand and cope with these changes are deteriorating.⁶⁹

A rise in income disparity is not an outcome specific to mining. Any form of rapid economic growth will produce this change. Even the creation of Nunavut itself, which brought with it numerous business opportunities for Nunavummiut, has created haves and have nots throughout the Territory. This has changed relationships and altered the economics of family units. It would be wrong to cast the social and community changes that mining will bring as something entirely new for Nunavummiut. These changes are already well underway right across the Territory.

Nevertheless, it is important to understand that the size and magnitude of the disparity created by rapid economic growth can be magnified in economies that are smaller and less developed. What distinguishes one society over another is the ability to put in place the public policies that promote what might be called *moral growth*—growth that is sustainable, that increases living standards not just today but for future generations as well, and that leads to a more tolerant, open society. Also, what can be done to ensure that the benefits of growth are shared equitably, creating a society with more social justice and solidarity rather than one with deep rifts and cleavages*

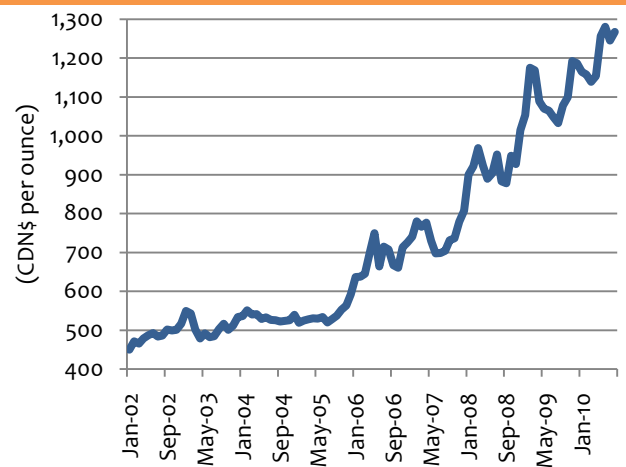
* Joseph Stiglitz, *The Ethical Economist*, Foreign Affairs, Volume 85, Number 6, November/December 2005.

Now, two years later, the risks and opportunities in Nunavut's mining sector are virtually unchanged. Yes, the world has undergone a massive recession that has certainly taken a bite out of Nunavut's previous growth path, but the mining outlook is still strong. Most of the projects being discussed in the last Outlook are still on the table today. Some are even more advanced than had been expected.

The projects included in this year's projections are all potentially viable. Backed by a continuation of record high prices, the gold deposits at Hope Bay and Meliandine Lake are likely to be developed in the next three to five years (see Figure 6-16). The uranium deposit at Kiggavik will also likely be operational before the end of this decade. Other deposits require a more careful study, but could also be developed before 2025. They include the silver, gold and base metals deposits at Hackett River and George Lake/Goose Lake, the iron ore at Mary River and the zinc deposit at Izok Lake. Questions regarding the capital requirements for the Mary River project add to its uncertainty. A new diamond discovery near Pangnirtung shows some promise, but for now not enough is known about the extent of the deposit to consider it in this year's forecast.

Figure 6-16

World Price for Gold, 2002 to 2010



Source: World Gold Council.

6.4.1 Mineral Production

Agnico-Eagle Mines poured its first gold bar from Meadowbank in the first quarter of 2010. This is the first mineral production in Nunavut since the Jericho Diamond Mine closed in 2007. The mine remains on target to produce between 350,000 and 400,000 ounces of gold annually, worth as



much as US\$ 500 million at today's spot price. The mine life is expected to be just over nine years, but could be extended if ongoing exploration can uncover additional reserves.⁷⁰

The mine's employment as of August 2010 was 1,435. This consisted of 637 Agnico-Eagle employees and another 798 contractor employees (see Table 6-2). Some 209 people were working to complete the final stages of construction, while 191 were working on the dyke in preparation for Phase II of the mine's operations. The remaining 1,035 were involved in various aspects of the mine's operations. The overall workforce will be scaled back once the construction phase is complete later this year.

Table 6-2

Meadowbank Workforce, as of August 5, 2010			
	AEM	Contractors	Total
Total Workforce	637	798	1,435
Nunavummiut	241	38	289

Source: Agnico-Eagle Mines, Meadowbank Division.

Nunavummiut currently make up 20 per cent of the overall employment, or 289 workers. Of these workers, 241 are Agnico-Eagle employees working at the mine site or in Baker Lake and represent 38 per cent of the company's total workforce for the project. The greatest source of local workers is Baker Lake where 147 people are employed by Agnico-Eagle.

The local workforce make up a large portion of the unskilled and semi-skilled positions at the mine, but have some representation in skilled positions and in management (see Table 6-3). This distribution of employment means that Nunavummiut take home a smaller share of the total wages paid.

This is an area that the company and government are working to improve through an aggressive training program. Agnico-Eagle has spent in excess of \$400,000 on training over the first seven months of the year and is considering the purchase of a training simulator for its haul trucks. Additional training will soon be available through the creation of the Kivalliq Mine Training Society that has a mandate

to interface between prospective workers and mining companies to find a means to get those individuals into the correct training programs. Agnico-Eagle has guaranteed employment for Kivalliq students who successfully complete the mine training courses.

6.4.2 Medium-term Prospects

6.4.2.1 Hope Bay

Newmont Mining is almost certain to be the next producer of gold in Nunavut. It has ramped up its efforts in 2010 to be ready for production at its Doris North site sometime late next year. The company will bring 20,000 tonnes of cargo to site along with 22 million litres of diesel fuel. It is undertaking a sizeable drill program including 42 km of drilling in its advanced fields and another 24 km of drilling in exploration. New infrastructure will be put in place, including an expanded camp and underground developments. In total, Newmont will spend US\$200 million this year alone.⁷¹

The current mining certificate is based on the environmental assessment completed by Miramar Mining, the property's former owner. That licence is for two years only. It is unclear whether Newmont would be able to extend the life of that licence in order to avoid suspending operations while it seeks regulatory approval for the full life of the mine. Should such an extension be granted, Newmont would be able to continue its Doris North operations while exploring additional sites. The potential exists for mine production to exceed nine million ounces over a mine life that could approach 20 years and employ, at times, as many as 800 people.

It was reported that as many as 80 Nunavummiut were working on the mine's development during 2010. Newmont Mining has assisted in the development of training programs including the creation of some apprenticeship positions.

6.4.2.2 Kiggavik

The uranium project owned by AREVA Resources and located 80 km west of Baker Lake has moved closer to development over the past two years. The company is now working on the project's feasibility study and the baseline socio-economic assessment in addition to its exploration activities. AREVA expects it will receive its final instructions from the Nunavut Impact Review Board by the first quarter of 2011. That will be followed by an environmental assessment process that will require a minimum of three years. A realistic schedule would see construction begin by 2015 or 2016 and operations starting three years later.

Table 6-3

Nunavummiut Workforce	
	# of Employees
Unskilled	80
Semi-skilled	124
Skilled	8
Management	29

Source: Agnico-Eagle Mines, Meadowbank Division



The Kiggavik Project is estimated to contain geological resources representing approximately 52,000 tonnes of uranium with a grade of approximately 0.23%.⁷² Based on a reserve of 44,000 tonnes, the property has the potential to remain in production for up to 17 years, producing between 2,000 and 4,000 tonnes of uranium annually, employing a staff of 400 to 600 people.⁷³

One thing to watch for in the next few years is the price of uranium. It peaked in June of 2007 at US\$136 per pound and had begun its slide well before other mineral prices.⁷⁴ And unlike other minerals, its value has not made any real gains since (see Figure 6-17). As of August, the spot price for uranium (U308 restricted price) was still below US\$50 per pound.

Figure 6-17

World Price of Uranium, 2004 to 2010



Source: International Monetary Fund.

There remains some public concern over the possibility of uranium production in Nunavut. This could slow the regulatory process down. AREVA Resources has been involved in extensive community consultations, which should help in educating the local population about a uranium mine and addressing safety concerns. The schedule proposed by the company suggests that it expects a rigorous regulatory process.

6.4.2.3 Meliadine

Agnico-Eagle Mining purchased the Meliadine property from Comaplex earlier in 2010 and has quickly increased the drill program that will see six rigs operating in 2011. In addition, Agnico-Eagle will spend up to \$40 million to extract a bulk sample from the Tiriganiaq deposit and complete the necessary metallurgical testing. A complete feasibility study of the property will also be conducted in the near future. Should

the schedule go as planned, the mine will receive its permits by 2013 and be producing gold by 2015 after a two year construction period.⁷⁵ Of course, any delay along the way would push this schedule back a year or two.

Unlike the company’s Meadowbank Gold Mine, Meliadine will be an underground operation after an initial year of open pit production. The mine would be small, likely operating for eight years, requiring a staff of 350. Once fully underground, production could reach 300,000 ounces a year.

What will be unique about this mine is its proximity to the community of Rankin Inlet, which is only 25 kilometres away. The closeness will facilitate the possibility of some employees working a daily shift rather than a rotation. However, because of the challenging weather conditions in that area, there would be times when the daily commute would not be possible. The camp will be built big enough to accommodate the entire work crew when the commute is not possible.

The proximity to Rankin Inlet has other benefits. The construction of a road to the property will give the community improved infrastructure such as a bridge across the Meliadine River. There is also a need for improved port facilities. The mine is not large enough to finance a project of that size on its own, but through local partnerships and government support, that infrastructure could be developed.

6.4.3 Long-term Prospects

There are several prospective mining projects that could have a sizeable impact on the Nunavut economy should they be developed. The deposits at Hackett River, Izok Lake and Mary River are all world class. The value of silver, copper, lead, zinc and iron has been rising steadily since early 2009 and it is not inconceivable that one, two or all three projects be developed before 2025. But all three have the same problem—they are all stranded by a lack of infrastructure; namely roads to the coast.

Hackett River is a silver, copper, lead, zinc deposit owned by Sabina Gold and Silver Corporation. It is located south of Bathurst Inlet. A 96 km road to the Arctic coastline and a port facility would be required to develop this site.⁷⁶ If developed, this project would likely require a \$500 million initial capital investment and would operate for approximately 16 years with open pit and underground operations.

The Mary River iron deposit is currently owned by Baffinland Iron Mining Ltd. This is a rich iron deposit situated 160 km south of Pond Inlet. In the days leading up to this reports completion, the company became subject to a hostile takeover bid by a foreign interest. Should Baffinland accept the



offer, the Mary River site will likely see a new round of exploration and sampling and new ideas on how that deposit could be developed.

The plan put forward by Baffinland had a price tag of \$4.1 billion based on pre-recession prices with operations spanning a minimum of 25 years. These cost estimates were determined at a time when input costs were at record levels and included a rail line and full port facility at Steensby Inlet. Over the past year, other options have been considered such as using the existing service road that runs north to Milne Inlet. As reported in the 2008 Outlook, this project would be massive, requiring a construction crew of 2,680 at its peak and 450 during operations.⁷⁷

Izok Lake is a rich zinc deposit now owned by China Minmetals Corporation, a state-owned Chinese mining company. That company also acquired the High Lake property which is closer to the Arctic Coast and has a confirmed resource that was established in 2008 by Zinifex Canada Inc., a previous owner of the deposit. With the new ownership, it is unclear whether there is any interest in developing the resource in the near future. There was no investment in the Izok Lake property in 2009, while a limited drill program was executed on High Lake.

6.5 CONSTRUCTION OUTLOOK

The construction industry continues to benefit from mining sector activities and public infrastructure funding. According to Statistics Canada's latest report on *Private and Public Investments in Canada*, there will be an overall increase in construction of 24 per cent in 2010. This increase can be largely attributable to several large projects, including

- the continuation of construction activities at the Meadowbank Gold Project,
- the increased activity at Hope Bay,
- public housing construction,
- the completion of several large government buildings
 - the Trades Training facility
 - the new Corrections facility in Rankin Inlet and
 - the final work on the Piquqsilirivvik Inuit Cultural Learning Centre in Clyde River,
- the private sector has also invested in new housing and commercial buildings such as the new building which houses the First Nations Bank of Canada in Iqaluit.

Looking toward 2011 and beyond, we should expect the overall expenditures in construction to fall back somewhat.

Most of the major projects currently underway will be completed in 2010 or within the first half of 2011 and there are not nearly as many projects waiting to replace them. This is true of both the public and private sector.

On the public-sector side of things, capital spending will decrease. The Government of Nunavut will scale its capital expenditures by approximately 50 per cent and as mentioned there could be longer-term implications stemming from the Nunavut Housing Trust overspending debacle.

In the private sector, the biggest change will come from the mining industry with the construction of Meadowbank largely completed. Newmont's investment strategy at Hope Bay will partially offset the losses and ultimately provide a rebound once the full construction crew moves in later in 2011.

Over the medium to long term, the two additional mining projects in the Kivalliq will return the overall construction industry to its current level of activities.

The timing of these mining projects is advantageous for Nunavut's construction outlook. Construction began at Hope Bay this year just as activities at Meadowbank were slowing down. This project will see construction span several years as new resources are opened for development. Around 2013, Agnico-Eagle Mines would like to begin construction at Meliadine assuming a positive feasibility study and a successful Environmental Assessment. That project will be at least two years in duration. And by 2015 or 2016, it is possibly that AREVA Resources will be in a position to start construction of its Kiggavik Project, which would span four years. Should any of the longer-term prospects become a reality within the next decade, they would provide an additional boost to this year's Outlook.

6.5.1 Nunavummiut Participation in Mine Construction

Exhibit 6-4 on the following page provides an overview of the construction phase of the Meadowbank Gold Mine and the participation of Nunavummiut in that work. By September of last year, 258 Nunavummiut were working directly on the project. This represents 21.7 per cent of the total workforce at that time. In two or three year's time, another mine development is planned for the Kivalliq region; and another two years after that. Increasing local participation with each project should be a goal for the region.



Exhibit 6-4

Construction of the Meadowbank Gold Mine

The Meadowbank Gold Mine, owned and operated by Agnico-Eagle Mines Ltd. (AEM), was developed over a three-year time period beginning in 2007 at a cost of US\$600 million. By September 2009, there were close to 1,200 employees working on the project. Of that total, Nunavummiut filled 258 positions of which 189 were employed by AEM and 69 by contractors.

AEM draws its Nunavut-based labour from within the Kivalliq region, and targets the community of Baker Lake specifically. As a result, 141 of its employees (as of Sept. 2009) were residents of Baker Lake. Another 24 came from Rankin Inlet and 18 from Arviat.

Nunavut-based employees received 4,554 hours of training in 2009. This included but was not limited to 36 staff members who completed Haul Truck upgrade training and another 9 who received Mill Operator training. Other programs offered were security, mine rescue, first aid, air traffic control, driving, confined space entry, WHIMIS, Cat D9 Dozer, fall protection, water truck, skid steer loader, kitchen, school bus and others.

Some of the construction activities have continued throughout 2010 alongside production. This has elevated the overall number of people working on the Project to more than 1,400 over the summer months and will extend the impact this project has had on Nunavut's GDP. The jobs will disappear over the next 12 months as the work is completed.

Meadowbank Construction Workforce, 2008 to 2009

	Oct. '08	Feb. '09	Sept. '09
Nunavut-based Employees	121	132	258
(percent of total)	(20.5)	(21.5)	(21.7)
Non Nunavut-based Employees	470	480	931
(percent of total)	(79.5)	(78.5)	(78.3)

Agnico-Eagle Mines' Kivalliq Workforce	Number of Employees
Arviat	18
Baker Lake	141
Chesterfield Inlet	4
Coral Harbour	1
Rankin Inlet	24
Whale Cove	1

Source: Agnico-Eagle Mining, Kivalliq Socio-economic Monitoring Committee 2009 Annual Report

This goal stands a good chance to be reached because of earlier investments such as the creation of the Trades Training Facility in Rankin Inlet and more recently, the establishment of the Kivalliq Mine Training Society (see *Exhibit 6-5*).

But another issue to look at in more detail is that of labour mobility. This has already been mentioned in this report, but bears repeating here. The mining sector is finding a home in the Kivalliq and Kitikmeot regions of the Territory. There are some longer-term prospects on Baffin Island, but nothing over the next five years. One way to improve local participation is to tap into the labour resources beyond regional boundaries. For example, there are many trained and experienced Nunavummiut who worked on the Mary River Iron Project who are out of work now or would be interested in mining and mine construction jobs.

[Are there mechanisms to bring workers from Baffin Island onto the construction sites in western and central Nunavut?](#)

There are obvious logistical and cost issues, but these costs should be studied and weighed against the benefits.

There are countless other examples that one could consider. For instance, there might be families in the Kivalliq or Kitikmeot regions considering a move to Iqaluit to access Government of Nunavut jobs. At the same time, skilled labourers in Iqaluit might want to move to the Kivalliq or Kitikmeot region to access jobs available at the Meadowbank or Hope Bay Gold Mines. The family moving to Iqaluit should be able to sell or trade their home to the family moving west and vice versa. The absence of an efficient housing market and the government system of public housing could be preventing such moves.

As in previous discussions, the point here is to show a need for research and development of new ideas for the efficient allocation of resources, which includes labour resources. Nunavut has many barriers that are preventing increased



participation and greater distribution of wealth. Each should be investigated to determine how and where improvements are possible.

Exhibit 6-5

Kivalliq Mine Training Society

The Kivalliq Mine Training Society has been established to coordinate the training needs of the labour force to meet the demand for skilled labour in the region's resource sector.

Its goal is to deliver a comprehensive Training-to-Employment Plan to prepare Land Claim Beneficiaries who are residents of Nunavut's Kivalliq region for guaranteed employment opportunities in the mining sector and spin-off economic activity.

The organisation has several partners, including.

- Aboriginal Skills and Employment Program (Government of Canada)
- Agnico-Eagle Mines
- Kivalliq Inuit Association
- GN Economic Development and Transportation
- Kivalliq Partners in Development
- Nunavut Arctic College

The program requires that its funding be backed by an industry sponsor (in this case AEM) that guarantees employment for participants who successfully complete their training.

The current funding is in place until March, 2012. In that time, the Society has targets that must be met. The most important of those is that at least 150 people from the Kivalliq region successfully complete their training courses and are offered employment as a result.

It is hoped that this new Society can make a difference in the overall skill set of Kivalliq labour and ultimately improve the level of participation in the region's growing wage economy.

- expanded its physical capital through the acquisition of vessels and gear,
- invested in its human capital through the Nunavut Fisheries Training Consortium,
- invested in its organisational capital
 - growing to four independent, active, fishing entities, and
 - successfully lobbying the federal government for a greater allocation of the existing fishing stock, and
- invested in exploration, which has resulted in an expansion of quotas.

There are now four active fishing entities holding 100 per cent of Nunavut's fish quota.

Arctic Fishery Alliance: This is a 100 per cent Inuit-owned partnership between the Hunters and Trappers Associations in Arctic Bay, Grise Fiord, Resolute Bay, and Qikiqtarjuaq. The company owns and operates the *Genny and Doug*—a 100 foot fixed-gear factory freezer, and has a partnership with Ueushuk Fisheries Limited which is a Labrador Innu company. Profits from the company are deposited into community trust funds.

Baffin Fisheries Coalition: This coalition was formed in 2000 and now has 9 participating members, including five Hunters and Trappers Associations and four private businesses. The coalition holds majority ownership on two vessels, mobile gear *Inuksuk I* and the fixed gear *Oujukoaq*. It owns outright the fixed gear vessel, *Vinlander*.

Cumberland Sound Fisheries and Pangnirtung Fisheries: These two companies have formed a partnership to manage new quotas for the Cumberland Sound area that are allocated under the new process administered by the Nunavut Wildlife Management Board. It does not have an interest in any vessels but is investigating possible acquisitions. The partnership was involved in the Cumberland Sound summer inshore test fishery project underway this year.

Qikiqtaaluk Corporation: This is the Inuit Birthright Development Corporation owned by the Qikiqtani Inuit Association. The corporation owns a majority share in the *Saputi*; an offshore factory freezer trawler that fishes for turbot and shrimp. The Qikiqtaaluk Corporation owns a northern shrimp licence and shares a second with Makivik Corporation.

These four organisations have been allocated 9,350 metric tonnes of turbot and 10,681 tonnes of northern shrimp for the 2010 offshore fishing season. Combined, this represents 45.5 per cent of the total allocation for the two species—70

6.6 FISHING OUTLOOK

Nunavut's fishery has undergone a number of changes over the past five years. In 2005, the Nunavut Fisheries Strategy was created, since then the industry has:



per cent of all turbot allocations and 34 per cent of all northern shrimp allocations. Nunavut also has 500 tonnes of turbot quota for the Cumberland Sound inshore fishery.

Nunavut officials and lobbyists note that this is still short of the 80 per cent to 90 per cent allocation that other provincial jurisdictions own in their adjacent waters. However, it is a significant increase from ten years ago when Nunavut's allocation represented less than 20 per cent of the overall quota. Also, with the most recent expansion in quota for turbot in Division OB, Nunavut was allocated 90 per cent of the total increase.

For the 2009 turbot fishery, the total catch was valued at \$41 million. This is slightly below the value of \$42 million recorded in the previous two years. A far greater drop in valuation has come in shrimp fishing. There, the total catch for 2009 was valued at \$6 million, down sharply from the \$15 million recorded in 2008 and \$22 million in 2007. The declining value of northern cold-water shrimp is the result of several factors. The single largest market for this product is the United Kingdom and its recession may be partially to blame. It is also the case that quotas have been dropping in some areas. And finally, and perhaps the greatest factor, warm-water farmed shrimp from Asian countries have become much cheaper in the past few years with the growth in that industry. While it could be argued that it is an inferior product, the warm-water shrimp it is starting to dominate the overall shrimp market. The declining value may result in a suspension of some shrimp operations.

Education and training for future fishers is provided by the Nunavut Fisheries Training Consortium (NFTC). It is made up of several partners, including the Baffin Fisheries Coalition, Qikiqtaaluk Corporation, Cumberland Sound Fisheries, Nattivak Hunter and Trapper Organization, Arctic Fishery Alliance, Kakivak Association, Kivalliq Partners in Development, Arctic College, Department of Environment, Department of Economic Development & Transportation, Nunavut Development Corporation, Human Resources and Skills Development Canada and Indian and Northern Affairs Canada. Since its inception, the Consortium has provided training to 345 people. The organization was recently awarded \$6 million in funding to continue its activities through 2012.

It is reported that many of the graduates from the NFTC programs have used their newly-acquired skills to access employment elsewhere, and in particular, in the mining and exploration industries. From a broad perspective on education and training, turning any training into employment is a positive result. However, it doesn't help the fishing industry increase its direct contribution to the Nunavut economy.

Working onboard an offshore fishing trawler is certainly not easy work. A typical schedule will see workers onboard for two months followed by one month at home which might explain some of the reluctance on the part of Nunavummiut to participate. But it is not realistic to think this schedule can be changed. For those who pursue commercial offshore fishing as a career can be rewarded with a wage of \$50,000 or more for six or seven months of work.

Over the next several years, any expansion in the fishery will likely come from inshore opportunities. This should help increase local participation and will help diversify the industry in general. The exploratory inshore fishing in Cumberland Sound is the start of this expansion. Pangnirtung Fisheries will also benefit by increasing the volume of fish it can access. There may also be an opportunity to increase participation in the winter fishery, which is more affordable and potentially profitable for small groups of two or three individuals wanting to work for themselves.

Over the longer term, the increased investments in fisheries science could result in greater turbot quotas and commercial fisheries of new species like clams and scallops.

From the perspective of GDP, we shouldn't expect any changes over the medium term. The greatest downside risk is the deteriorating market conditions for shrimp, while the greatest upside risk is in the improved inshore fishery. It should also be noted that the high cost of some operations makes profitability almost impossible, and we cannot envision a future where this challenge will be resolved.

6.7 TOURISM OUTLOOK

Nunavut's tourism sector has long been looked at as an area for the Territory to expand and diversify its economy. There are many potential attractions for visitors. Arctic landscapes and wildlife, unique culture, history and arts, and real adventure are some of the things that a tourist might get from a visit. But by all accounts, this sector has yet to flourish.

In the first few years following Nunavut's official creation in 1999, the sector suffered from a lack of investments in all four forms of capital. It lacked tourism products, community infrastructure was poor, there weren't enough trained tourist operators, and its organisational capital was in its infancy.

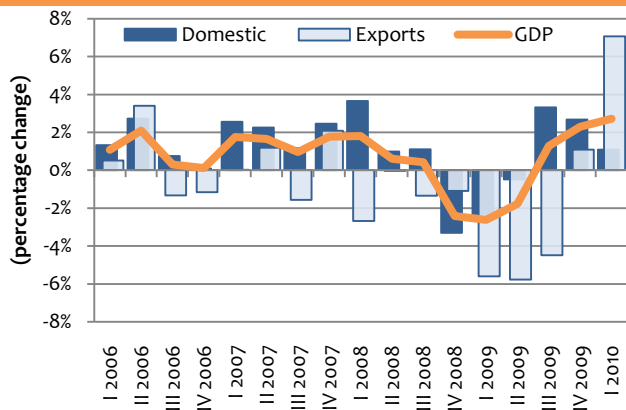
In the years that followed, small improvements were made but in general, the investments were modest and the sector remained small. The 2008 Nunavut Economic Outlook reported the sector remained largely undeveloped. It contin-



ued to lack important tourism products and infrastructure, and suffered from an inadequate yearly budget at \$4 million. 2008 was also highlighted by the United States' ban on the importation of polar bear hides. Cruise ships were being investigated on concerns operators were dumping contaminants into the Ocean. And then, the recession hit hurting the tourism industry everywhere (see Figure 6-18).

Figure 6-18

Change in Quarterly Expenditures by Domestic and Foreign Travellers to Canada and GDP in Canadian Tourism Sector, 2006 to 2010



Source: Statistics Canada, CANSIM Table 387-0010 & 387-0001

Given all that, it might seem the only direction for the sector is up. And to that end, there are a number of new developments that would suggest this will be the case.

The principal change is new investments in the sector's organisational capital. A well-run tourism industry requires an enormous effort of coordination and cooperation between active participants, community and regional officials, and non-government organisations. For the first time in almost a decade, Nunavut's tourism sector will have a new strategy. Nunavut Tourism is now developing the strategy and it should be completed by the fall of 2011. The Government of Nunavut has also completed Phase I of its *Tourism Sector Development Strategy*.⁷⁸

Nunavut Tourism has also developed a comprehensive benefits package that is attracting new members. Among other things, the benefits include easier access to insurance

for licensed operators and discount air fares that members can access for their clients.

Nunavut Tourism is promoting its products as an *Authentic Experience* and is focussing its promotion on niche markets such as those tourists who can afford the time and money needed when travelling to the North. Other markets being targeted include the conferences market which had been a strength in Nunavut's tourism industry but has fallen off as of late. In the next 18 months, Iqaluit will host several large conferences including that for the Ontario Landscape Architect Association in 2011 and the Economic Developers' Association of Canada in 2012. This comes on the heels of a meeting of G7 finance ministers that was held in Iqaluit in 2010 in conjunction with the G8 and G20 summit held later in Toronto. There is also potential in the incentives market, where companies (typically overseas) purchase tourism packages in lots of 20 or more to reward its employees. And of course, there is great potential for an increase in cruise ship traffic, though this particular niche has some challenges. From the perspective of Nunavut tourist operators and others that might benefit, the challenge is to get these tourists off their boats and into the communities and spending money.

There are also new investments in products and infrastructure funded by Nunavut Tunngavik Inc. Three communities have received special funding to develop specific tourism products:

- Arviat will develop an eco-tourism centre.
- Gjoa Haven will develop a tourist centre for cruise ship tourists.
- Cape Dorset will develop an arts centre.

There remains some optimism that Iqaluit will soon have a performing arts centre. This project remains in the planning stages, but some time and effort has been put toward initial research into location and design. The Government of Nunavut set aside \$7 million as a part of its capital planning for 2010-11 for future use in building a Nunavut Heritage Centre. This building is also mentioned in the government's action plan, *Tamapta*, as a project that will be completed within the four-year mandate of the current government.⁷⁹

The attention Nunavut has received from the Prime Minister, the publicity surrounding Arctic sovereignty and the issue of climate change all work to raise awareness of the Territory



in southern Canada and around the world. This attention should translate into increased tourism. Nunavut also invested heavily in the Olympic Games in Vancouver. It is hoped that this will result in increased visitors in the near future.

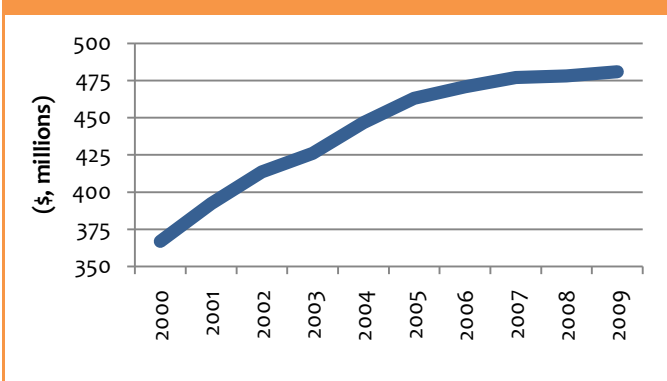
Looking at Nunavut’s tourism sector over the medium term, advances will most likely be modest, but much stronger than in the past few years. As already noted, growth will come in cruise ships, conferences, and other niche markets. Perhaps most importantly, this should bring increased opportunities for seasonal work and give a small but growing number of Nunavummiut some much needed supplementary income.

6.8 GOVERNMENT OUTLOOK

It was noted earlier that government’s overall contribution to Nunavut’s real GDP has not grown substantively in several years. This trend will not change over the medium term unless the federal government expands its Northern Strategy investments by a considerable amount with a greater emphasis on investments that have more immediate benefits for Nunavummiut.

Figure 6-19

Government’s contribution to real GDP, 2000 to 2009

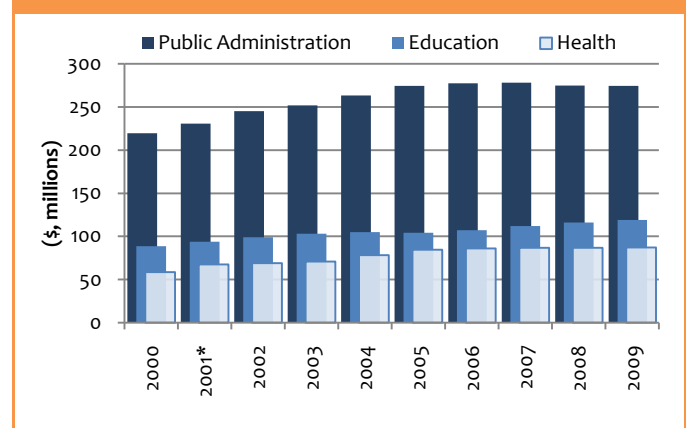


Source: Statistics Canada, CANSIM Table 370-0025

Combining public administration, education and health, government’s real contribution to the economy has grown by less than 1 per cent annually over the past five years, growing from \$463 million to \$481 million in that time (see Figure 6-19). In this five-year timeframe, the only real growth has come in education and health. Growth in public administration has actually fallen (see Figure 6-20).

Figure 6-20

Government’s contribution to GDP, 2000 to 2009



Source: Statistics Canada, CANSIM Table 370-0025

Both of these trends will continue well into the future. Growth will come from greater demand for education and health services (as discussed earlier), and not from public administration. And while the Government of Nunavut had 868 vacant positions as of March 2010 representing 22 per cent of the total positions available, there is little chance they will be filled. For one, the labour is not available. And two, there is no budget for this additional staff which would cost the government close to \$100 million annually. Thus, we shouldn’t expect any growth apart from what is generated from increased federal transfers.

In the more immediate future, the Government of Nunavut must manage \$60 million of cost overruns in the \$200 million Nunavut Housing Trust program. The government had stated it could cover \$40 million of these added costs, meaning planned spending by government departments would be trimmed back by that amount this year.

As the Nunavut Economic Outlook was being finalised, it was discovered that the Nunavut Housing Trust overspent on its second funding allocation. This time the cost overrun amounted to \$50 million on a budget of \$100 million. One must assume that unless it is bailed out, the GN will have no choice but to finance this through deficit spending, meaning Nunavummiut will be paying for this error well into the future.



6.9 ARTS SECTOR OUTLOOK

Nunavut's arts sector and cultural industries cannot be overlooked when assessing the economic outlook for the Territory. Its contribution to the measured production of Nunavut is barely noticeable beside the billions of dollars spent in mining, construction and government operations. However, its real contribution is very important from the standpoint of culture and economic diversification. As a cottage industry, the arts sector and cultural industries offer productive outlets for people uninterested in jobs with the public service, construction work, mining or other camp work. As a source of income, it can provide a much needed supplement to the income received from other work or from social assistance.

It remains a challenging sector to study from the perspective of economic forecasting though. Much of the activities go unrecorded by Statistics Canada so information on employment, revenue and costs are not known with any real certainty. In a recent study conducted for the Department of Economic Development and Transportation, it was estimated that artists contribute the equivalent of \$22.9 million to Nunavut's GDP, though most of it would not be recorded as such.⁸⁰ This figure is the sum of earnings made from the sale of art directly to consumers, wholesalers, or retailers minus the cost of materials and equipment. This figure was then used to develop an estimate of the indirect and induced effects on GDP, which was shown to be \$10.2 million.⁸¹ These calculations are useful in giving analysts and policymakers some information to go by. It will increase its usefulness if a mechanism could be developed to collect better data and to monitor changes in the sector over time.

The study also includes estimates of labour activity in the arts sector, which ranges between 2,500 and 3,500 people.⁸² The Nunavut Arts and Crafts Association estimates that approximately 20 per cent of Nunavut's labour force participates in the arts sector and cultural industries.⁸³ In Cape Dorset, a community well-known for its soap stone carvings, it has been suggested that one in four residents are involved in the industry. These are large numbers given Nunavut's population was estimated to equal 32,675 in 2010.

The world market for Nunavut's art is large and could be expanded upon. Already, approximately 10 per cent of Canada's art exports are made up of Inuit art. The Nunavut arts community has grown to understand better marketing and quality control. It is increasingly focused on ensuring artists

are the primary benefactor from the sale of their work and that the art produced is properly valued.

The possibility of a stronger tourism industry in Nunavut represents an opportunity for the arts community to increase its sales. As mentioned earlier, the projected increase in cruise ship business has the potential to become a real boon, but requires an enormous effort in coordination and communications. The arts community requires substantial lead time to prepare for the arrival of tourists, who may only have a few hours to walk through a community. With help from Nunavut Tourism, the arts community is encouraging cruise lines to provide itineraries well in advance. This would provide tourists with a better experience and allow the community to prepare.

The focus from the tourism sector on conferencing is also a potentially strong market for artists. In most cases, the majority of conference delegates are first-time visitors to Nunavut and are very likely to want something to take home. Again, preparations for large sales events require several weeks and strong organisational skills are imperative.

One should also remember that Nunavut's arts sector is more than soap stone carvings and Inuit crafts. Print making, storytelling, music and other performance arts, new media art, and more all make up Nunavut's arts sector. For instance, Nunavut's film and television industry is a small but vibrant component of the overall arts sector. "On a per capita basis, Nunavut has approximately 10 times the domestic production spending of any other Canadian or international circumpolar jurisdiction."⁸⁴ It is supported by the Nunavut Film Development Corporation (see Exhibit 6-6) and a new Film Policy initiated by the Government of Nunavut in April 2010.⁸⁵

It is estimated that Nunavut producers spent \$6.7 million in the Territory on film and television production during the 2008-09 fiscal year.⁸⁶ Guest producers who are production companies from other parts of Canada and other countries spent an additional \$6 million in Nunavut. This study points out that the industry could be larger through the proper mix of investments in the infrastructure, human capital and institutions necessary to create a vibrant film and television industry. These investments would enhance the local content and attract more guest production.

To describe the arts sector purely in the context of an economic outlook based on GDP projections leaves little opportunity to understand the contribution it makes to a high and



Exhibit 6-6

Nunavut Film Development Corporation Mandate

- Grow and sustain the indigenous film, television and digital media industry by facilitating training opportunities through professional development, mentorship, co-productions and special projects.
- Establish and maintain a funding program, including a Labour Rebate Program, that assists the industry in expanding its capacity to produce projects in Nunavut.
- Foster the development of business partnerships between companies and individuals in key areas of the industry.
- Provide production and location services, including information and support.

Source: Nunavut Film Development Corporation (www.nunavutfilm.ca)

sustainable quality of life. There are numerous questions related to the Arts Sector's contribution toward growth in human capital and social inclusion that can help us determine whether the sector is growing or not.

- What role does this sector have in improving an individual's physical or mental health? Is the role changing?
- How does it impact the overall health or spirit of a community? Are communities that are more engaged in the arts sector healthier?
- How are artists treated within a community? Are artists considered leaders? Are they a part of the decision making process?

Of course, there are many other questions. The point is to understand that the contribution this sector makes to the economy can be described and measured in part through data on social objectives and community health.

6.10 GROWTH OUTLOOK

The forecast in this year's Outlook is more cautious than that from 2008 and yet it is not all that different. Mineral development remains the one element within Nunavut's economy that can attract new private-sector investment, create employment, and alter the economic and social landscape of the region. This fact won't change in the next ten to fifteen years. There has been a shift in development timelines from the 2008 report however; some projects have been added, while others have been dropped.

The next five to eight years will see a tremendous rise in GDP from the back-to-back development of four mining projects; Meadowbank, Hope Bay, Meliadine, and Kiggavik. Once into production, these mines will bring the value of Nunavut's real output close to \$1.8 billion, approximately 65 per cent higher than its 2009 level and more than twice its size from 1999 (see Figure 6-21). GDP can be even higher than predicted, but will be dependent on the Territory's ability to capture a greater share of the downstream opportunities from the mining industry; the so-called indirect effects.

In the latter years of the forecast period, there remains the possibility of additional mining projects such as Izok Lake, High Lake, Hackett River and Mary River.

There are other important activities influencing the economic landscape but are difficult to see through the impacts from mining. Government's contribution to the future growth is important. Government is still the largest employer in Nunavut. The Government of Nunavut announced a major downsizing of its capital budget this year and the financial troubles within the Nunavut Housing Trust will prevent a rebound in 2011. Over the longer term, the GN will see rising demand for education and health care services. We can expect any increase in federal transfers will be channelled into these two areas.

The Government of Canada is moving forward with its Northern Strategy. This will mean spending on the military and on Arctic research in the near term. It remains to be seen how much this program can be influenced by Nunavummiut and the direct and indirect effects of any spending that targets socio-economic development.

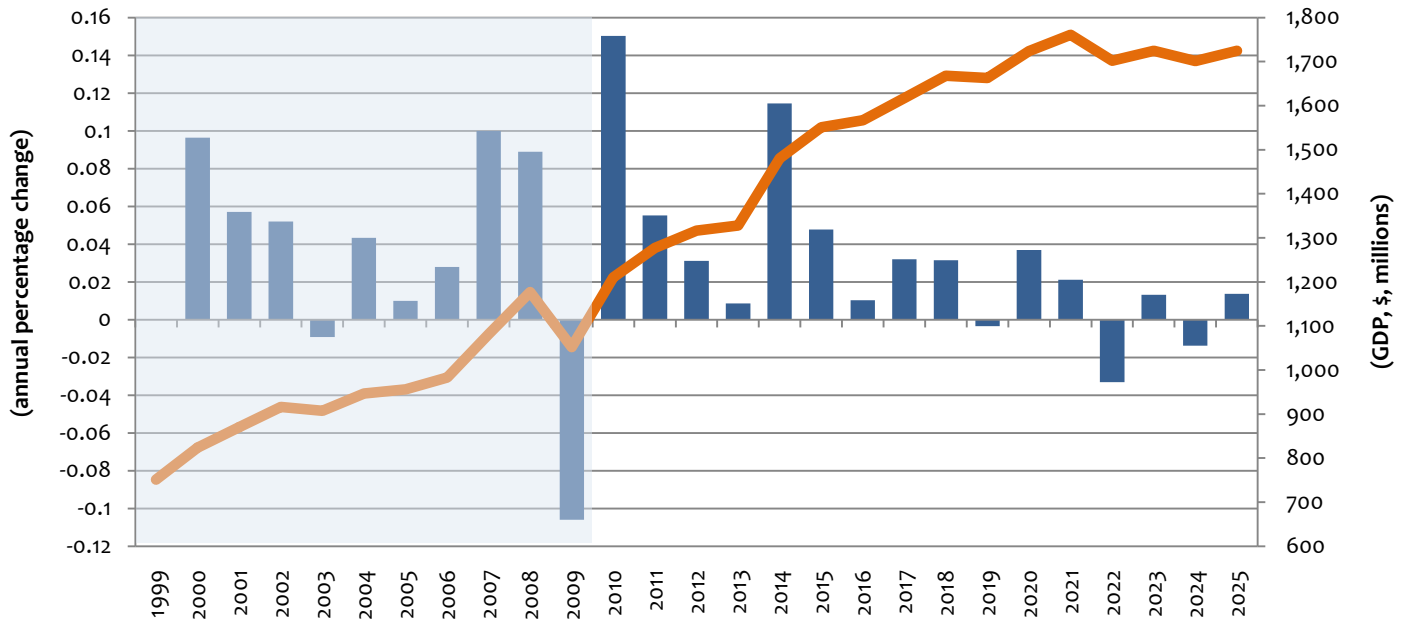
Other resource sectors like fishing will also continue to improve. The industry has implemented its comprehensive investment strategy over the past five years which is paying dividends in terms of greater infrastructure, improved knowledge, trained labour, and stronger organisations. The challenge now is to find new and inventive ways to get more Nunavummiut involved in the actual fishing.

The tourism sector along with the arts sector is showing far more promise than it has for the last decade. A combination of better management, the end of the recession, and a growing world interest in the Arctic could combine to turn Nunavut into a more popular destination. It still has its challenges, of course, not least of which are the cost of tourism in Nunavut and the need for improved community and tourism-related infrastructure.



Figure 6-21

GDP Forecast, 1999 to 2025, (\$, millions, chained (2002) prices)



Source: Statistics Canada, Impact Economics.



7 CONCLUDING REMARKS

Key Highlights

- Nunavut has a second chance for economic prosperity. Something that has come much sooner than would have been predicted in the fall of 2008.
- The new Outlook shows growth will be concentrated in the Kivalliq and Kitikmeot regions over the short- to medium term. For this reason, we cannot say that all economic objectives will be met, unless Nunavut can find a way to distribute some of the benefits to communities outside these regions.
- The Outlook shows how and where the economy will grow, but it also shows where it will fall short. This year's research looked at how Nunavut used the 18 to 24 months of economic downtime to review the gaps in its wealth-generating capital and develop an investment strategy to address them.
- In some areas, the Territory has responded constructively such as developing new health prevention and early childhood health strategies, establishing the Kivalliq Mine Training Society, and taking seriously the results from the GN Report Card.
- But most if not all of Nunavut's more fundamental challenges remain. For example, Nunavut still does have a good plan for how to deal with the generation of Inuit who have lost their way in the transition from a traditional Inuit way of life to one based on the culture of the wage-based economy.
- Nunavut must deal with these challenges if it is to capture the full benefits from the next wave of economic growth and reach its goal of a high and sustainable quality of life.

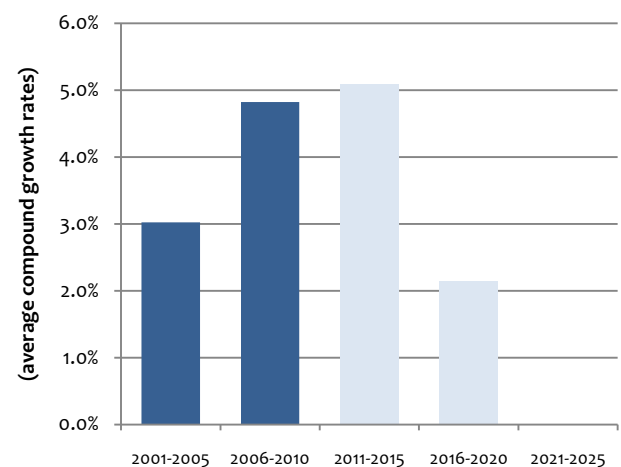
The subtitle of this year's Nunavut Economic Outlook is **Nunavut's Second Chance**. A reader will likely understand this is to mean Nunavut's economy has a second chance for prosperity. And by all accounts, this interpretation is correct (see *Figure 7-1*). The economy shrank by 10 per cent in 2009, but is now set to grow by 15 per cent in 2010 and by an average of 5 per cent over the next five years.

This is quite a revelation given the dour predictions made about the world's economy only 18 to 24 months ago. Remarkably, Nunavut's current economic position is not so different than what existed in 2008. As long as your near-term economic future was not tied to the Mary River Iron Project, this second chance has arrived. And what's more, there seems to be a far greater sense of economic stability in this year's outlook.

The 2008 Outlook talked about every economic objective of Nunavummiut being reached by the end of the decade under a scenario where the major resource projects all moved ahead. This is not quite the case in this year's forecast, primarily because of the concentration of major projects in the

Figure 7-1

Growth in Real GDP, 2000 to 2025 (5-year averages)



Source: Statistics Canada, Impact Economics



Kivalliq and Kitikmeot regions. For communities in the Baffin region outside Iqaluit the loss of the Mary River project at least for the time being means they must rely on smaller economic opportunities available in the fishery, tourism, and cultural industries and otherwise depend on government-led projects to generate some form of economic vitality. This is a possibility for the Baffin communities, but will happen as a result of many small steps and not the giant leaps that major resource development projects offer.

But in studying this second chance, we were also looking for a response from Nunavummiut to the events that unfolded in the years leading up to the recession. Recall that the 2008 Outlook concluded that by all accounts, Nunavut's economy was growing too fast for Nunavummiut to keep pace. Gaps in wealth-generating capital were exposed that would become liabilities for the Territory's goal of achieving a high and sustainable quality of life. When the economic growth stopped in late 2008, there was an opportunity for Nunavummiut to reflect on the past two years of economic build up and to consider how the Territory and its residents were coping with and adapting to the changes. One can imagine that had this Outlook been written in 2009, the term *second chance* would have been interpreted as a second chance to make some necessary changes before the economy returned to a period of rapid growth.

Looking through this year's Outlook, one can find some instances of a response by Nunavummiut to the past events. The Kivalliq Mine Training Society is an excellent example. It is modelled after the very effective NWT Mine Training Society, and should help improve the participation rate of Nunavummiut in the growing Kivalliq wage economy.

The Department of Health has developed new health strategies that are exactly in line with what the Territory needs. It must now receive the financial support necessary for the implementation of these strategies.

A much grander response was the Government of Nunavut's action plan, *Tamapta*. It was developed in 2009 and yet had little to say about the economy despite the 10 per cent decline in GDP that year. A more typical government response to the economic situation would have been to make the economy the sole focus of the action plan. Instead, the Government introduced a plan that included such things as a Quality of Life Committee and an Anti-Poverty Secretariat.

But in other areas, the response has been too slow, less apparent or non-existent. As discussed earlier, the economic growth in the Kivalliq region has exposed a shortage in labour. A single construction project at Meadowbank that

made a point to hire Nunavummiut managed to employ no more than 250 local people, approximately 20 per cent of the required workforce. The newly-formed Mine Training Society will help in the future, but with two additional mine developments coming to the region in the next five years, more actions are needed. Nunavut must look at other barriers to employment such as labour mobility and high-school dropout rates.

Anecdotal evidence is showing the communities in the north Baffin where the economy was growing alongside the Mary River Iron Project are now suffering as a result of the slowdown there. This needs to be watched carefully because it could happen elsewhere. The one certainty in mining is that a mine's life is finite.

Survey work is needed in Baker Lake to contrast the findings in Pond Inlet, Clyde River and Arctic Bay. There should be a more concerted effort to collect economic and social data from these communities so that we can learn from the experiences. What we learn there might help in the future development of Kugluktuk, Cambridge Bay, and Rankin Inlet where major resource development is or will soon take place.

Perhaps most intriguing is the growing divide between Nunavummiut fully engaged in the wage economy and those that are not. For those that are engaged, their participation is creating a new middle class which is the first step in creating substantive changes in a society. A new and larger middle class of Nunavummiut will force changes to the housing market, place greater demands on the education system, require a different relationship with its representative Inuit organisations, and expect more from its public government. This must be followed closely and governments and other institutions must develop responsive and flexible approaches to managing their programs and services.

But there is also a large number of Nunavummiut who are not yet ready, are unable, or are unwilling to participate in the wage economy. Not enough is known about the motivations of this group. For example, the drop-out rate of high school students in some Kivalliq communities has worsened over the last few years, despite the growth in the region's economy. This runs counter to the belief that students drop out because there are no real job prospects in their community.

We accept that there are some Nunavummiut who prefer a more traditional Inuit life. But others have seemingly lost their way in the transition from a traditional Inuit way of life to a wage-based culture and lifestyle. We can't give up on



this group and must learn how they can be supported in a fair and equitable manner.

This divide between rich and poor that is emerging across Nunavut stands as one of the greatest challenges Nunavut faces in reaching its goal of a high and sustainable quality of life.

This year's Nunavut Economic Outlook has looked into the state of Nunavut's wealth-generating capital, the recent performance of its economy and the potential for growth across several sectors. It has found some changes were made over the past two years that puts the Territory in a better position to cope with, adapt to and ultimately benefit from the future economic expansion.

But it has also found that the fundamental gaps in Nunavut's wealth-generating capital remain which will hinder the Territory's progress toward a high and sustainable quality of life. We therefore maintain our concern for those that are being left behind and the effect this is having on the well-being of Nunavut communities and social cohesion at the local and family level. We are also concerned for those communities that have few if any economic prospects given the absence of any real plan to share the benefits of the Territory's economic growth.

Through our research, we have also found that the economy that has emerged from last year's recession is smaller than some of the economic growth scenarios being considered in 2008 and yet in many ways it is stronger and more stable. These are important qualities for an economy in Nunavut that give us some hope for the future. A more resilient and stable economy will provide Nunavummiut a steadier platform in which to grow. Bringing new and sometimes reluctant entrants into the labour market requires an economy that has productive roles for these people and can offer a degree of support not always present in an economy. The mix of large resource-based developments, smaller more community oriented business and government can serve Nunavummiut well if managed properly.

This economy gives Nunavut a second chance for prosperity. Nunavummiut must shape it such that economic objectives can be achieved without overwhelming communities; that the growing middle class can become the catalyst for greater social inclusion; and that the rising financial wealth can be used to lower poverty. In doing these things, the Territory will reach its ultimate goal of a high and sustainable quality of life for all Nunavummiut.



¹ Graeme Clinton and Stephen Vail, The Conference Board of Canada, *The Nunavut Economic Outlook* (Ottawa, 2001).

² Government of Nunavut. *Tamapta: Building our future together, 2009-2013 Government of Nunavut's Action Plan*. ISBN: 978-1-55325-192-7, available at <http://www.gov.nu.ca/english/tamapta/>.

³ These generalisations make up the principal components of several important documents for Nunavut such as the Nunavut Land Claims Agreement, Naujaat Challenge, Pinisuarquvat, Tamapta, and the Nunavut Economic Development Strategy.

⁴ United Nations, United Nations' Development Report, *World Development Report, 1996*.

⁵ Assets is a term used by the Sustainable Livelihood Strategy, see Department of ... for an explanation of the SLS, which is very similar to the framework incorporated in the NEO series.

⁶ Definitions provided by the 2002 Nunavut Economic Outlook.

⁷ Impact Economics with Stephen Vail, *Community Economic Development Revisited: A Discussion Paper Investigating the Misunderstandings and Misdirected Implementation of CED Principles*, (Yellowknife, June, 2005) prepared for Aboriginal Economic Development Division, Indian and Northern Affairs Canada (NWT Office).

⁸ M. Sharon Jeannotte et al., *Buying in or Dropping Out: The Public Policy Implications of Social Cohesion Research* (Department of Canadian Heritage: 2002).

⁹ Nunavut Economic Development Strategy: Building a Foundation for the Future, Sivummut Economic Development Strategy Group, June 2003, page 29.

¹⁰ Clinton, G. and Vail, S, *Community Economic Development Revisited: A Discussion Paper Investigating the Misunderstandings and Misdirected Implementation of CED Principles*. Impact Economics. Developed in cooperation with Indian and Northern Affairs Canada, Aboriginal Economic Development Division (NWT), (Yellowknife, 2005).

¹¹ Serge Coulombe et al., *International Adult Literacy Survey: Literacy scores, human capital and growth across fourteen OECD countries*. Statistics Canada. Ottawa. 2004.

¹² Statistics Canada, Demography Division, CANSIM Tables #051-0001 and #051-0052, and Special tabulations, as presented by Nunavut Bureau of Statistics available at <http://www.gov.nu.ca/eia/stats/population> accessed April 29, 2009.

¹³ Compounded annually.

¹⁴ NWT Bureau of Statistics, *2009 NWT Survey of Mining Employees*, on behalf of the Government of the Northwest Territories, BHP Billiton Inc., Rio Tinto Inc., and De Beers Canada Inc., August 2009.

¹⁵ Last year's figure is subject to change because the population figure might change with future revisions.

¹⁶ A portion of the education budget is spent on adult education, which this calculation ignores. The bias introduced, however, is small.

¹⁷ We note that there have been few updates on health indicator data for Nunavut over the past few years. However, we do not believe much has changed to discredit any older data included in this year's report.



¹⁸ Nunavut Tunngavik Incorporated. *Recruitment and Retention of Inuit Nurses in Nunavut*, 2010.

¹⁹ Food and Agriculture Organization of the United Nations. *Rome Declaration on World Food Security and World Food Summit Plan of Action*. Rome, Italy: FAO, 1996.

²⁰ Tarasuk V. Health Implications of food insecurity. In *Social Determinants of Health: Canadian Perspectives*, 2nd ed. Raphael, D. , Ed.; Canadian Scholars' Press Inc.: Toronto, 2009; Chapter 14.

²¹ Statistics Canada. Household food insecurity, 2007-2008. <http://www.statcan.gc.ca/pub/82-625-x/2010001/article/11162-eng.htm>.

²² Egeland G., Pacey A., Cao Z. and Sobol I. Food insecurity among Inuit preschoolers: Nunavut Inuit Child Health Survey, 2007-2008. *CMAJ*. February 23, 2010, 182(3).

²³ "TB cases hit record high in Nunavut" CBC News, August 17, 2010. CBC.ca (Accessed 8/31/2010).

²⁴ There are nations that have taken the approach depicted by Scenario B and have performed well such as the Scandinavian countries of Norway, Sweden, Finland and Denmark. These countries are characterised by very high levels of taxation, a large government presence in people's lives, and very low levels of income disparity.

²⁵ Benjamin Friedman, *Moral Consequences of Economic Growth*, (Knopf, 2005).

²⁶ Impact Economics, *2008 Nunavut Economic Outlook*, Nunavut Economic Forum, September 2008.

²⁷ Moloughney, Brent, *Housing and Population Health: The State of Current Research Knowledge*, Canadian Institute for Health Information, June 2004.

²⁸ Nunavut Housing Corporation, *2009-2010 Business Plan*, available at www.nunavuthousing.ca.

²⁹ Clinton, G. and Stephen Vail, *2005 Nunavut Economic Outlook*, Impact Economics (July 2005) for the Nunavut Economic Forum.

³⁰ Netkaster, Product Description, www.netkaster.ca/productdescription.html

³¹ Nunavut Broadband Development Corporation, *Update December 2009: Infrastructure Phase II*. Available at www.nunavut-broadband.ca.

³² Nunavut Broadband Development Corporation, *Update July 2010: Infrastructure Phase II*. Available at www.nunavut-broadband.ca.

³³ DFO-Nunavut Harbours Working Committee, *Nunavut's Small Craft Harbour Report, 2005*. Intergovernmental Committee between Fisheries and Oceans Canada and the Department of Community Development and Transportation.

³⁴ Department of Economic Development and Transportation, Government of Nunavut.

³⁵ Kivalliq Socio-Economic Monitoring Committee, *Kivalliq SEMC Annual Report, 2009*. Impact Economics, November 23, 2009.

³⁶ Niall Ferguson, *The Ascent of Money*, Penguin Press, November 2008.

³⁷ Atuqtuarvik Corporation, www.atuqtuarvik.com.

³⁸ Nunavummi Nangminiaqqtuniklkajuuti (NNI) Policy.

³⁹ This section draws heavily on the results presented by North Sky Consulting who produced the GN Report Card. While it is the goal of the Nunavut Economic Outlook to develop an understanding of the progress in Nunavut's



organisational capital, readers are encouraged to look at the Report Card for a more thorough description of the results and recommendations.

⁴⁰ North Sky Consulting, *Qanukkanni? The GN Report Card*, developed for the Government of Nunavut, October, 2009. (available at <http://www.gov.nu.ca/reportcard/>)

⁴¹ Ibid.

⁴² Ibid.

⁴³ Government of Nunavut, Department of Human Resources, Inuit Employment Planning Division, *Towards a Representative Public Government*, March, 2010. (available at <http://www.gov.nu.ca/hr/site/towardrepps>)

⁴⁴ For a complete description of the contributing factors, see the Auditor General of Canada, *Nunavut Housing Trust*, May 2008 available at (http://www.oag-bvg.gc.ca/internet/English/aud_nun_200805_e_30754.html).

⁴⁵ Commissioner of Nunavut, The Honourable Ann Meekitjuk Hanson, *Commissioner's Address*, 2nd Session of the Third Legislative Assembly of Nunavut. April 1, 2009, page 2, as cited in North Sky Consulting, *Qanukkanni? The GN Report Card*.

⁴⁶ National Snow and Ice Data Center, Arctic Sea Ice News and Analysis, September 2010, "End of Summer Approaches for Arctic sea ice," available at <http://nsidc.org>.

⁴⁷ Ibid.

⁴⁸ Arctic Council, *Arctic Marine Shipping Assessment 2009 Report*, April 2009, second printing.

⁴⁹ Ibid.

⁵⁰ Government of Nunavut, Department of the Environment, *Draft Caribou Management Strategy*, March 2010. (available at <http://env.gov.nu.ca/wildlife/resources/speciesmanagement/barrengroundcaribou>)

⁵¹ Ibid.

⁵² Government of Nunavut, Department of the Environment, (available at <http://env.gov.nu.ca/wildlife/resources/speciesmanagement/barrengroundcaribou>)

⁵³ Government of Nunavut, *Draft Caribou Management Strategy*.

⁵⁴ Government of Canada, Indian and Northern Affairs Canada, *Backgrounder – Nunavut Fishing Research Vessel*, May 20, 2010. (available at <http://www.ainc-inac.gc.ca/ai/mr/nr/m-a2010/23357bg-eng.asp>)

⁵⁵ Government of Nunavut, Department of the Environment, News Release, *Nunavut Summer Turbot Fishery Creates a Splash!*, August 20, 2010. (available at <http://env.gov.nu.ca/node/85>)

⁵⁶ Ibid.

⁵⁷ Government of Nunavut, Department of the Environment, *Nunavut Coastal Resource Inventory: Iglulik Pilot Project*. May 2008. (www. <http://env.gov.nu.ca/node/68>)

⁵⁸ Ibid.

⁵⁹ Inuit Tapiriit Kanatami, *Media Release*, "Inuit Sue European Union (EU) to Overturn Seal Product Import Ban, Defending Inuit Rights and Upholding the Rule of Law", available at <http://www.itk.ca/media-centre/media-releases/inuit-sue-european-union-eu-overturn-seal-product-import-ban-defending-i>



⁶⁰ Department of Fisheries and Oceans, *Facts About Sealing*, available at <http://www.dfo-mpo.gc.ca/fm-gp/seal-phoque/facts-faits-eng.htm>. These prices are for that of the harp seal which is the primary seal export.

⁶¹ Hatch, available at http://www.hatch.ca/mining_metals/non_ferrous/projects/meadowbank_gold.htm.

⁶² Typically, Statistics Canada would have released preliminary data for 2009 in May of 2010. Its new schedule will see this data published in November.

⁶³ The implicit price index for consumer goods and services and the consumer price index for Iqaluit was used to approximate inflation in retail sales.

⁶⁴ Organisation for Economic Co-operation and Development, *Economic Outlook*, No. 87 Annexes and Tables. The World Bank Outlook, *The Global Outlook*, Summer 2010, International Monetary Fund, *World Outlook*, revised estimates July 2010.

⁶⁵ Government of Canada, Department of Finance Canada, *Budget 2010*, March 4, 2010.

⁶⁶ Government of Canada, Northern Strategy, (available at <http://www.northernstrategy.ca>)

⁶⁷ The demographic forecast included in this Outlook is based on the *Nunavut Demographic Model* created and maintained by Impact Economics.

⁶⁸ There are a few peculiar data points in history. There was an abnormal decline in the number of women who in 2000 were aged 25 and 26 from 2007 to 2009. This could be the result of out-migration. Otherwise it cannot be explained.

⁶⁹ Benjamin Friedman, *Moral Consequences of Economic Growth*, (Knopf, 2005) Part IV, Chapter 12, Page 298.

⁷⁰ Agnico-Eagle Mining, *Meadowbank Division*, presentation to the Kivalliq Socio-economic Monitoring Committee, September 1, 2010.

⁷¹ Newmont Mining Corporation, *Hope Bay Project Factsheet*. (available at <http://www.newmont.com>)

⁷² AREVA Resources Canada Inc., *The Kiggavik Project: Project Proposal*, November, 2008.

⁷³ Ibid.

⁷⁴ International Monetary Fund, *World Commodity Prices*.

⁷⁵ Agnico-Eagle Mines, *Meliadine Project Update*, August 31, 2010.

⁷⁶ Sabina Gold and Silver Corp., *Preliminary Economic Assessment (Update): NI 43-101 Technical Report, Hackett River Project*. December 23, 2009. Prepared by PEG Mining Consultants, Inc.

⁷⁷ Impact Economics, *2008 Nunavut Economic Outlook*, prepared for the Nunavut Economic Forum, Sept 2008.

⁷⁸ Government of Nunavut, Department of Economic Development and Transportation, *Tourism Sector Development Strategy*, May 27, 2010.

⁷⁹ Government of Nunavut, *Tamapta*.

⁸⁰ Nordicity, *Nunavut Arts and Crafts Sector Economic Impact Study*, June 2010. Produced for the Government of Nunavut, Department of Economic Development and Transportation.

⁸¹ Indirect effects are the economic impacts generated as a result of the artists' purchase of materials and equipment. Induced effects are economic impacts generated from the consumer spending of all income earned by the artist, the sellers of equipment and materials, and any resuppliers.



⁸² Ibid.

⁸³ Nunavut Arts and Culture Association, *Sanaugait: A strategy for growth in Nunavut's arts and crafts sector*, 2008. (available at http://www.edt.gov.nu.ca/docs/Sanaugait_eng.pdf)

⁸⁴ Nordicity, *Economic Impact Study*, September 2009. Produced for the Nunavut Film Development Corporation.

⁸⁵ Government of Nunavut, Department of Economic Development and Transportation, *Film, Television & Digital Media Development Contribution Policy*, February 4, 2010.

⁸⁶ Nordicity, *Economic Impact Study*.