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OLD AGE SECURITY? NATIONAL SECURITY IMPLICATIONS OF AN AGING CANADIAN POPULATION

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OLD AGE SECURITY?

NATIONAL SECURITY IMPLICATIONS OF AN AGING CANADIAN POPULATION

By/par

Colonel K.R. Cotten

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Abstract

This paper examines the national security implications for Canada resulting from an aging Canadian population. Based on the simple yet inevitable premise that each year we become one year older or we die, analysis of the age and the aging process of the Canadian population can reveal extremely useful information about the future. The application of demography in many areas of public policy, such as health care and education, is rather obvious, but demographics can be equally useful in assessing future national security considerations for Canada.

This paper addresses three principal areas: first, the phenomenon of an aging Canadian population in terms of the degree and rate of aging; second, the general social attributes and needs of an older population; and finally, some of the resulting implications for national security, ranging from workforce recruiting and immigration screening, to new challenges in domestic emergency response and federal budget spending priorities. The paper clearly demonstrates that the present and future age distribution of the Canadian population is the key to determining the level of demand for many government services and the resources required to satisfy those demands. It concludes that Canadian public policy makers and defence planners have the ability to exploit demographic projections today in order to foretell future population age scenarios, and mitigate the risks that these might present to national security. By considering the demographic component of age in the Canadian population today, policy makers and defence planners can be better prepared to assure all Canadians, both young and old alike, of a secure future tomorrow.

INTRODUCTION

At the very least, Rome's story reveals that civilizations, including our own, can change catastrophically. It also suggests the dark possibility that our human projects are so evanescent that they're essentially meaningless.¹

- Thomas Homer-Dixon, *The Upside of Down*

“80-year olds can't fill sandbags.”²

- Dr Adam Chapnick

Canada's population is aging. Taken at face value, this seemingly innocent statement might elicit little or no response from average Canadians and policy makers alike. Individual people are born, grow old, and die; why should a nation's population be any different? The interesting aspect of the phenomenon of population aging lies not in the process of aging itself, but rather in the *degree* and *rate* of aging in the Canadian population *as a whole*, and in the relative differences *between distinct cohorts* of that population.³

A great deal has been written about the subject of population aging. Hundreds of books, reports, and scholarly treatise populate the literature of this social phenomenon, both in Canada and internationally. The vast majority of this literature focuses on the aspects of health care and pension plans, and the impact an aging population will have on the costs of these publicly funded social programmes.

¹ Thomas Homer-Dixon. *The Upside of Down – Catastrophe, Creativity, and the Renewal of Civilization* (Toronto: Alfred A. Knopf, 2006), 5.

² Dr Adam Chapnick, in conversation with the author. Dr Chapnick is a member of the academic staff at the Canadian Forces College in Toronto, Ontario.

³ Degree is defined as the size of change, and rate is defined as the rapidity of change.

Likewise, there has been a great deal of intellectual effort dedicated to the study of the security implications of age demographics in developed and developing countries, mainly from the perspective of US national security.⁴ These writings focus on demographic shifts, settlement patterns and movement across borders as underlying causes of conflict in developing states, and the undermining of national defence capability (people and dollars) of traditional US allies due to the effects of immigration and population aging.

Very little has been written about the national security implications for Canada resulting from an aging Canadian population, hence the aim of this paper. The paucity of literature on this subject is perhaps an indication that implications are minimal; that an aging population offers neither opportunities for, nor threats to, our national security. Alternatively, it might suggest a naïve lack of attention to what is thought to be a harmless, natural and inevitable phenomenon. In either case, this paper should initiate a healthy discussion and debate on some of the impacts an aging Canadian population will have on the future of Canada's national security.

National security is commonly regarded as the maintenance of the survival of the nation-state through the use of elements of national power: economic power, military power and political power. By extension, national security implies the security of its citizenship, the aggregate of individuals who make up a nation-state's population. For the purpose of this paper, national security will be viewed principally from the perspective of *human security* in a domestic Canadian context, building on the nation's fundamental obligation to its citizens to provide for their overall security. According to

⁴ For an example, see Brian Nichiporuk, *Population Matters: The Security Dynamics of Demographic Factors* (Washington DC: Rand, 2000).

the Human Security Network, “. . . human security means freedom from pervasive threats to people's rights, their safety or even their lives.”⁵ The United Nations

Development Programme has characterized human security in this manner:

Human security represents an effort to re-conceptualize security in a fundamental manner. It is primarily an analytical tool that focuses on ensuring security for the individual, not the state. Exploring options aimed at mitigating threats to the insecurity of individuals thus becomes a central goal of [government] policy recommendations and actions. In line with the expanded definition of human security, the causes of insecurity are subsequently broadened to include threats to socio-economic and political conditions, food, health, and environmental, community and personal safety.⁶

With an increasingly vulnerable aging Canadian population, competing demands for limited resources will create pressure on several areas related to national security.

Why is the issue of an aging population important to Canadians? National security is a vital national interest, and any future threats to the security of Canada's population must be identified and addressed. This is the foundation of statehood and the principal *raison d'être* for national governments: providing for the security of the nation's people. Based on the simple yet inevitable premise that each year we become one year older or we die, analysis of the age and the aging process of the Canadian population can reveal extremely useful information about the future. According to Dr David Foot, demographer, Professor Emeritus of Economics at the University of Toronto and co-author of the best-seller *Boom Bust and Echo 2000*, demography “is the most powerful –

⁵ The Human Security Network (HSN) is a group of like-minded countries from all regions of the world that, at the level of Foreign Ministers, maintains dialogue on questions pertaining to human security.

⁶ United Nations Development Programme, *National Human development Report Series – Occasional Paper 5*, 13.

and most underutilized – tool we have to understand the past and foretell the future.”⁷ He goes on to state that “demographics explain about two thirds of everything.”⁸ Its application in many areas of public policy, such as health care and education, is rather obvious, but demography can be equally useful in assessing future national security considerations for Canada, and should not be overlooked.⁹

This paper will address three principal areas: first, the phenomenon of an aging Canadian population in terms of the degree and rate of aging; second, the general social attributes, needs and vulnerabilities of an older population; and finally, an examination of some of the resulting implications for national security, ranging from workforce recruiting and immigration screening, to new challenges in domestic emergency response and federal budget spending priorities. It will clearly demonstrate that the present and future age distribution of the Canadian population is the key to determining the level of demand for many government services and the financial resources required to satisfy those demands. The corollary is that an aging population will have some foreseeable impacts on national security and defence. By considering the demographic component of age in the Canadian population today, public policy makers and defence planners can be better prepared to assure all Canadians of a secure future tomorrow. At the very least, they should plan well for the “two thirds”.

⁷ David K. Foot and Daniel Stoffman, *Boom Bust and Echo 2000*, 2nd ed. (Toronto: Macfarlane, Walter and Ross, 1998), 8.

⁸ *Ibid.*, 8. The other “one third” is subject to unforeseen political and/or natural events.

⁹ *Ibid.*, see chapters 8 and 9.

AN AGING CANADIAN POPULATION

Canada's population is aging. As indicated earlier, the degree and rate of aging in the Canadian population as a whole and the relative differences between distinct age cohorts of the population lie at the root of the coming "age wave".¹⁰ A closer examination of the social science of demography is a useful starting point for greater understanding of these relationships.

Demography

In simple terms, "demography is the study of populations, their size, distribution, and composition, and the immediate causes of population change - births, deaths, and migration."¹¹ A simple formula illustrates the causal relationship behind the degree of population change: the number of births minus the number of deaths plus the number of immigrants minus the number of emigrants equals the net change in a population's size.¹² By introducing a specific time period to the equation, one can compare the relative size of a population at the beginning and at the end of the period, leading to the determination of the rate of change. In addition to population size and growth, there are many other characteristics that can be assessed in a similar manner (e.g. gender, age, race, religion, education, occupation, location, etc). Given the focus of this paper, age is the key demographic characteristic of population composition that bears closer examination, for

¹⁰ Ken Dychtwald and Joe Flower, *Age Wave*, (New York: Bantam Books, 1990).

¹¹ Roderic Beaujot and Don Kerr, *Population Change in Canada*, 2nd ed. (Toronto: Oxford University Press, 2004), 6.

¹² David K. Foot, *Canada's Population Outlook*, (Toronto: James Lorimer and Company, 1982), 77.

it is the variance in this characteristic which stands out. The degree and rate of aging in the Canadian population must be determined in order to properly assess the impact of this phenomenon.

In order to foster an appreciation of how “old” the Canadian population is today, and how it compares to previous times in our history, it is necessary to define the measures by which age and aging are commonly assessed. The average (or mean) age and the median age are the two most frequently used indicators of population aging.¹³ The average age is simply the sum of the total population’s ages divided by the total population. The median age is the age that divides the population into two groups of equal size, one half comprised of younger members and the other half of older members. So, how does the Canadian population present?

Table 1 portrays the average and median ages of the Canadian population for the period beginning in 1851, the first decennial population census in Canada,¹⁴ and concluding in the year 2006, based on the most recent available census data.¹⁵ During this 155 year period, the average age in Canada has nearly doubled, from 21 years to almost 40 years, while the median age has more than doubled, moving from 17 years to 39 years. Both figures represent all-time highs in Canada’s history. Clearly, Canada’s population is aging, and has been since pre-Confederation days.¹⁶

¹³ *Ibid.*, 40.

¹⁴ Statistics Canada, *1996 Census Handbook*, (Ottawa: Industry Canada, 1997), 12.

¹⁵ The most recent Canada Census was completed in 2006. The next Census will be conducted in May 2011, however the data will not be released until several months afterwards.

¹⁶ For a dynamic view of an age pyramid of the population of Canada for 1901-2006, see <http://www12.statcan.gc.ca/census-recensement/2006/as-sa/97-551/vignettes/cda06pymd.swf>; Internet; accessed 22 April 2011.

Table 1 - Average and Median Age of the Canadian Population, 1851-2006

Census Year	1851	1871	1891	1911	1931	1951	1961	1971	1981	1991	1996	2001	2006
Average Age ¹⁷	21.7	23.6	25.8	27.0	28.4	30.3	30.5	30.8	32.0	34.9*	36.9*	38.5*	--- ¹⁸
Median Age ¹⁹	17.2	18.8	21.4	23.8	24.7	27.7	26.3	26.2	29.6	33.5	35.3	37.6	39.5 ²⁰

Source: table compiled by author from Statistics Canada Census Data (1996, 2001, 2006)

Even more telling is the rate at which both indicators (average and median ages) have been changing in recent years. The average age of the Canadian population has increased more in the last twenty years than in the previous eighty years. The median age increased by 2.3 years, or 6.5%, between 1996 and 2001 alone.²¹ Since then, the median age shows little sign of slowing, growing by a further 1.9 years in the last five year period. As shown in Figure 1, this increase in the median age is the largest census-to-

¹⁷ Statistics Canada. * denotes data calculated by author based on 2001 Census data.

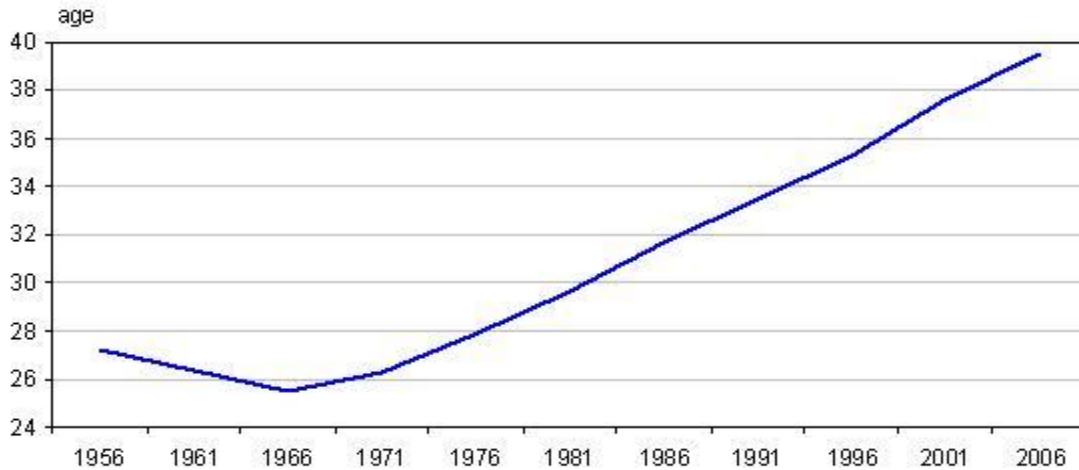
¹⁸ Average age data no longer available as a standard data product on the Statistics Canada website.

¹⁹ Statistics Canada. 2001 Population Census, Analysis Series, Age and Sex Profile.

²⁰ Statistics Canada. 2006 Census Analysis Series, available at <http://www12.statcan.gc.ca/census-recensement/2006/as-sa/97-551/p1-eng.cfm>; Internet; accessed 22 April 2011.

²¹ Statistics Canada. 2001 Population Census, Products, available at <http://www12.statcan.ca/english/census01/Products/Analytic/companion/age/canada.cfm>; Internet; accessed 22 April 2011.

census increase in a century, and prolongs a sharp aging trend that originated just after the end of the Baby Boom in the mid-1960's.



Sources: Statistics Canada, censuses of population, 1956 to 2006.

Figure 1 - Median Age, Canada, 1956-2006

Source: Statistics Canada, 2006 Census²²

Not only has the age of the population been changing, certain age cohorts have led the way. “The age group to increase at the fastest pace was that aged 80 and over. From 1991 to 2001, their numbers soared 41.2% to 932,000”²³ and reached a staggering 1,167,000 in 2006.²⁴ At the same time, the number of children aged four and under declined by 11.0%, mostly due to Canada's declining fertility rate.²⁵

²² Statistics Canada, 2006 Census Analysis Series Findings, available at <http://www12.statcan.ca/census-recensement/2006/as-sa/97-551/figures/c3-eng.cfm>; Internet; accessed 22 April 2011.

²³ *Ibid.*

²⁴ Statistics Canada. 2006 Population Census, Analysis Series Findings, available at <http://www12.statcan.ca/census-recensement/2006/as-sa/97-551/figures/c5-eng.cfm>; Internet; accessed 22 April 2011.

²⁵ Statistics Canada. 2001 Population Census, Products, available at <http://www12.statcan.ca/english/census01/Products/Analytic/companion/age/canada.cfm>; Internet; accessed 22 April 2011.

There is absolutely no doubt that Canada's population has been aging at an accelerating rate, but what about the future? How long will this trend continue and what will happen next? This is where the science of demographic forecasts comes in.

Demographic Forecasts

“Demographics explain about two thirds of everything.”²⁶ Demographers like Dr David Foot are quick to make the distinction between demographic forecasts (or projections) and predictions,²⁷ the former consisting of projections of “the consequences of informed judgments”²⁸ while the latter implies the ability to see the future with certainty. Demographic projections are derived from demographic data that, once combined with assumptions that characterize a number of alternative scenarios, are subjected to a population projection model which generates a number of corresponding future outcomes. For example, in a typical population projection, the formula described earlier would be used as a start point: births minus deaths plus immigrants minus emigrants equals net population change. In order to forecast the next year's or decade's population change, the demographer must make assumptions about the future number of births (based on the current fertility rate), the future number of deaths (based on the average life expectancy at birth), the future number of immigrants (based on a reasonable assumption derived from historic levels) and the future number of emigrants (based on a

²⁶ David K. Foote and Daniel Stoffman, *Boom Bust and Echo 2000*, 2nd ed., 8.

²⁷ *Ibid.*, for more on demographic forecasting, see 279.

²⁸ *Ibid.*, 281.

reasonable assumption derived from other countries' Canadian immigrant data, admittedly an imprecise measure.)²⁹

Given that all four future measures (births, deaths, immigrants and emigrants) are dependent upon human behaviour, demographers must account for potential variations by considering alternative scenarios for each measure e.g. low, medium and high variations for each. For example, the actual fertility rate in Canada in 2006 was 1.6; this would constitute the most likely scenario for subsequent forecasts. Demographers could also generate low and high fertility scenarios based on fertility rates of 1.3 and 1.9 respectively, thereby providing a range of possible outcomes. Likewise, various scenarios could be generated for immigration levels, with their corresponding outcomes.

A brief examination of the Canadian population age forecast over three horizons, 2011, 2021 and 2031, will provide a general idea of the aging nature of Canada's population. For the purposes of this paper, a medium growth scenario has been selected to illustrate the "most likely" outlook.³⁰ The focus is on the two extremes of the population age band, those traditionally considered to not be of "working age"; those under 15 and those 65 or over. It reveals a very significant shift from young to old as a percentage of the entire population, and certainly gives cause for closer examination.

²⁹ *Ibid.*, 283-284. Fertility rate is defined as the average number of children a woman will bear over her lifetime if she follows the current fertility behaviour of all women. Life expectancy at birth is the average length of life for an individual of any age if that individual lives out the remainder of their life under current mortality conditions. Exit from Canada does not require any official documentation; therefore no definitive Canadian data is available. According to Statistics Canada, the average annual number of estimated emigrants over the period 1991-2001 was approximately 70,000. See <http://www40.statcan.gc.ca/101/cst01/demo03-eng.htm>.

³⁰ This scenario combines assumptions of fertility and immigration similar to recent years, along with moderate growth in life expectancy. See Statistics Canada <http://www40.statcan.ca/101/cst01/demo08a.htm>.

Near-Term (2011 - Total Projected Population 34.5 million³¹)

During the period 2001-2011, the number of children aged four and under is expected to halt its 1991-2001 decline of 11%, stabilizing at 1.9 million, while the 5 to 14 year old segment will experience a decline of 7% to 3.7 million.³² In total, it is projected that there will be 5.6 million Canadians under the age of 15 by 2011, amounting to 16.2% of the total population.

In the “senior” cohort of 65 and over, the most telling shifts will be in the number of people between the ages of 65 and 69, which will increase by 31% to 1.5 million, and the number aged 80 or over, which is expected to increase by 43% to surpass an estimated 1.4 million.³³ In total, there will be 4.9 million Canadians over the age of 65 by 2011, amounting to 14% of the total population. Figure 2 provides a comparative view of growth rates by various age segments for the two decades between 1991 and 2011. Note the decline in the younger age cohorts and the comparatively high growth rate in the older age cohorts.³⁴

³¹ Statistics Canada. <http://www40.statcan.ca/l01/cst01/demo23b-eng.htm> (medium growth) ; Internet; accessed 22 April 2011.

³² *Ibid.*

³³ *Ibid.*

³⁴ Overall changes between 2001 and 2006 census projections are very slight, hence the 2001 table remains valid (not available in 2006 Census data).

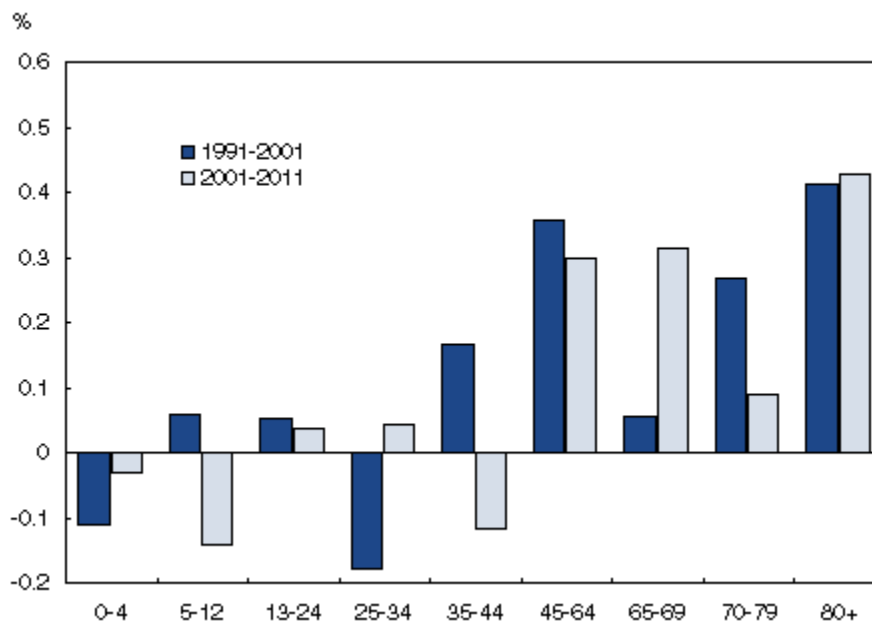


Figure 2 - Growth Rates, Selected Age Segments, Canada, 1991, 2001 and 2011

Source: Statistics Canada, 2001 Census.³⁵

Mid-Term (2021 – Total Projected Population 38.4 million³⁶)

In the decade between 2011 and 2021, the under 15 cohort will grow a very slight 3% (0 to 4 year olds growing by 6%, but 5 to 14 year olds still declining by .1%), to a total of 5.6 million, or 15% of the total population. The 65 and over cohort will grow by 1.8 million, an astounding 44%, to 6.6 million, or 18% of the total population.³⁷ It is projected that the number of people 65 and over will surpass those under 15 by the year 2017, for the first time in Canadian history.³⁸

³⁵ *Ibid.*, see <http://www12.statcan.ca/english/census01/Products/Analytic/companion/age/popgaing2.cfm>.

³⁶ Statistics Canada 2006 Census <http://www40.statcan.ca/101/cst01/demo23d-eng.htm> (medium growth); Internet; accessed 22 April 2011.

³⁷ Statistics Canada. The exact breakdown by age segments is available at <http://www40.statcan.ca/101/cst01/demo08b.htm>.

³⁸ See “Immigration Helps Canada's Population” available at http://www.rsscanadaimmigration.com/en/blog/2006_10_01_archive.html; Internet; accessed 22 April 2011.

Long-Term (2031 - Total Projected Population 42.0 million)³⁹

Over the following decade i.e. 2021-2031, the under 15 cohort will fall slightly to 16.2% of the total population, at which time they will amount to approximately 6.8 million. Meanwhile, the 65 and over cohort will continue to grow at an amazing rate. In 2031, there will be 9.6 million Canadians over the age of 65, amounting to 23% of the total population. This means almost one in four Canadians will be age 65 or over. Projections beyond 2031 foresee even more growth in this cohort, as shown in Figure 3.

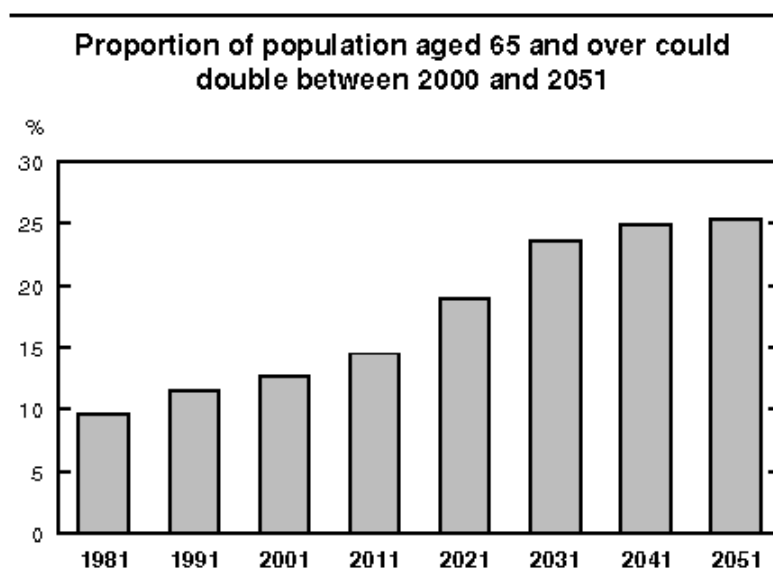


Figure 3 - Percentage of Canadian Population Comprised of Persons Aged 65 or Older, 1981 to 2001 and Projections to 2051

Source: Statistics Canada.⁴⁰

Summary

In summary, increases in the average and median ages of the Canadian population since the 1960s provide clear indications of rapid aging relative to historic Canadian

³⁹ Statistics Canada 2006 Census <http://www40.statcan.ca/101/cst01/demo23d-eng.htm> (medium growth) ; Internet; accessed 22 April 2011.

⁴⁰ Statistics Canada, The Daily, 13 March 2001 available at <http://www.statcan.ca/Daily/English/010313/d010313a.htm>; Internet; accessed 22 April 2011.

rates. Between 1961 and 2006, the average and median ages have increased from 30.5 years and 26.3 years respectively, to close to 39 years in both cases. This is reflected in significant changes in both the age cohort extremes of the population over the period 1991 to 2001, where the age group aged 80 and over increased by 41%, while the number of children aged four and under declined by 11.0%, due mostly to Canada's declining fertility rate.⁴¹

Population age forecasts for the subsequent three decades, as summarized in Table 2, foresee a continuing aging trend based on a medium growth scenario. Between 2001 and 2011, there will be no change in the under 15 cohort, but a 26% increase in the 65 and over cohort; by 2021, a slight increase of 4% in the under 15 cohort and a further increase of 38% in the 65 and over cohort; and by 2031, a marginal 2% increase in the under 15 cohort overshadowed by another 38% increase in the 65 and over cohort. At that point in time, the 65 and over cohort will constitute 23 % of the Canadian population, compared with just 13% in 2001.⁴²

⁴¹ The fertility rate is the number of children a woman would have during her reproductive years (15-49) if she had the number of children that women of that age currently have in the population as a whole. The fertility rate in Canada has decreased from an all-time high in 1959 of 3.9 to an all-time low of just under 1.5 in 2005. See http://www.statcan.ca/english/freepub/11-516-XIE/sectionb/B1_14.csv and http://globalis.gvu.unu.edu/indicator_detail.cfm?IndicatorID=138&Country=CA.

⁴² For population age pyramids of Canada 2000-2025-2050, see US Census Bureau at <http://instruct.uwo.ca/economics/317b-570/Population%20Pyramid%20Summary%20for%20Canada.htm>.

Table 2 - Canadian Population Cohorts Comprised of Persons Under 15 and 65 or Over, Year 2001 and Projections to 2031⁴³

		2001	2011	2021	2031
Population < 15 Years of Age	Absolute Number	5.4M	5.4M	5.6M	5.7M
	% of total population	18%	16%	15%	15%
Population ≥ 65 Years of Age	Absolute Number	3.8M	4.8M	6.6M	9.1M
	% of total population	13%	14%	18%	23%

A PORTRAIT OF SENIORS IN CANADA

With almost one in five Canadians projected to fall in the “seniors” category by 2021, and practically one in four by 2031, the demographic face of Canada will be substantially different that it has ever been in our nation’s short history. The ways in which this difference will manifest itself are important to this discussion, as they could have serious national security implications in the future, either as a factor in various “threat” scenarios or as an influence in public policy and spending decisions. Before these potential implications are presented, it will be useful to characterize the aging population. This will be accomplished through a general examination of societal life in Canada as experienced by today’s “senior” Canadians of 65 years of age or older,⁴⁴ establishing some general characteristics, which will subsequently be linked to their

⁴³ Table developed by author based on data from Statistic Canada.

⁴⁴ There is an ongoing debate about the definition of “senior”, in light of greater life expectancy. See Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*. (Ottawa: Minister of Industry, February 27 2007), available at <http://www.statcan.ca/english/freepub/89-519-XIE/89-519-XIE2006001.pdf>; Internet; accessed 28 March 2011, p.7.

potential impacts on public policy areas with either direct or indirect implications for national security. The social characteristics of seniors that will be considered are: health and wellness, financial security, living arrangements, and support networks.

There have been a number of studies and reports concerning the well-being of seniors in Canada.⁴⁵ In February 2007, Statistics Canada (Social and Aboriginal Statistics Division) published “A Portrait of Seniors in Canada”.⁴⁶ Authored by Martin Turcotte and Grant Schellenberg, this fourth edition provides “an up-to-date portrait of the general well-being of seniors, in absolute terms, in comparison with previous cohorts of seniors and in comparison with persons of younger ages.”⁴⁷ It uses the “three pillars of seniors wellness” laid out in the National Framework on Aging:⁴⁸

- 1) *Health, wellness and security*, which includes health and wellness, safety and security and income security;
- 2) *Continuous learning, work and participation in society*, which includes work and retirement, age discrimination and negative stereotypes, social participation and ethnocultural diversity; and
- 3) *Supporting and caring in the community*, which includes living arrangements, transportation, social isolation and loneliness, family/informal care giving and seniors in northern/remote Canada.

⁴⁵ See Monica Townson, *The Social Contract for Seniors in Canada: Preparing for the 21st Century* available at <http://dsp-psd.communication.gc.ca/Collection/H71-3-19-1994E.pdf>, and Health Canada, *Canada's Aging Population* available at http://www.phac-aspc.gc.ca/seniors-aines/alt-formats/pdf/publications/public/various-variee/papier-fed-paper/fedpaper_e.pdf.

⁴⁶ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*.

⁴⁷ *Ibid.*, 7.

⁴⁸ *Ibid.*, 9.

By drawing on findings from this and other reports which are related to the lifestyle and the vulnerability of today's seniors, a better understanding of the social demographic characteristics of the future security environment will be achieved, thereby providing the basis for assessing potential "threat" scenarios and associated national security implications.⁴⁹

Health and Wellness

Aging is generally associated with a decline in overall health and with limitations on different forms of activity. However, data show that a large proportion of seniors still fare very well when compared with younger people. While this may somewhat counter the general perception of health and aging, there remains a significant proportion of the senior population suffering from disease and illness, an absolute number which will grow quickly with the growth in the number of seniors over the coming decades.

Cancer and heart disease are the main causes of death for seniors. Arthritis and high blood pressure are the most frequently reported chronic conditions among seniors, and with an increasing rate of obesity in seniors, the incidence of these conditions will rise further.⁵⁰ The elderly are also often afflicted with eye-related problems such as cataracts and glaucoma. In 2003, 28% of seniors aged 75 and over had cataracts, which if left untreated, can result in progressive loss of vision. Furthermore, about 79% of senior men and 84% of senior women had a vision problem of some sort, ranging from difficulty reading or watching television to more serious impairments such as being

⁴⁹ See also Millar, Wayne J., "Statistics Canada Health Reports", 16, no. 1 (October 2004) and Susan E. Schultz and Kacek A. Kopec, "Statistics Canada Health Reports", 14, no. 4 (August 2003).

⁵⁰ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 45-48. In the past 25 years, the percentage of the population that can be considered obese has increased across all age groups. In 1978/79, only 11% of individuals aged 75 and over were considered obese; by 2004 that percentage had risen to 24%.

unable to see well enough to drive.⁵¹ The diseases which impact the most on the quality of life of seniors were identified as Alzheimer's disease, stroke, epilepsy, bowel disorders and urinary incontinence.⁵²

If a senior has difficulty hearing, seeing, walking, climbing stairs, bending, learning or doing similar activities, their quality of life can be compromised and they can be limited in their daily activities. Approximately 47% of persons aged 85 or over either cannot walk or require mechanical support/wheelchair or help from people to get around. Hearing and seeing correctly, resolving day to day problems and remembering most things become more difficult tasks among persons aged 85 and over. Many of these conditions limit the ability of seniors to live independently, creating reliance on support from others. Seven out of ten seniors aged 75 and over lived in a private household in 2003 and one out of seven seniors needed someone else to help with their personal care such as washing, dressing, eating or taking medication.⁵³ The other three in ten seniors aged 75 and over resided in healthcare institutions such as nursing homes and hospitals where they received some level of personal care. This dependency, or vulnerability, is a key factor when considering the possible implications of various "threat" scenarios.

The preceding information on the general health of seniors, particularly those 75 and over, paints a disquieting picture with the impending rapid growth of this cohort. If even one quarter of the nine million seniors in Canada in the year 2031 experiences a high degree of dependence on external support due to chronic health concerns, this would constitute a highly vulnerable population of two and a quarter million people should their

⁵¹ Millar, Wayne J., "Statistics Canada Health Reports", 16, no. 1 (October 2004): 45-48.

⁵² Susan E. Schultz and Kacek A. Kopec, "Statistics Canada Health Reports." 14, no. 4 August 2003): 41-50, <http://www.statcan.ca/english/studies/82-003/archive/2003/14-4-c.pdf> (accessed 3 April 2011).

⁵³ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 48-49.

support systems be compromised by either natural events (floods, earthquakes, power failures, extreme temperature conditions, disease, etc) or deliberate acts by human actors (terrorist-sponsored attacks on the power grid, water or food supplies, etc). On a broader scale, the aging of the population implies challenges to the overall health care system, which will be faced in the coming years with higher demand for services; seniors not only use health care services more frequently, they also need different types of services. Almost nine million potential “patients”, combined with the likelihood of 32% of them requiring medical consultations six or more times per year (as illustrated in Table 3), will undoubtedly place much higher demands on health spending in future federal budgets.

Table 3 - Frequency of Medical Consultations in the Past 12 Months, by Age Group

	Total aged				
	25 to 54	55 to 64	65 to 74	75 and over	65 and over
0 visit	21.2	13.8	10.5	8.7	9.7
1 to 2 times	37.2	33.2	29.4	23.7	27.0
3 to 5 times	22.5	27.9	31.4	30.8	31.1
6 to 11 times	11.5	15.6	16.8	20.4	18.3
12 and more	7.7	9.5	12.0	16.5	13.9
Total	100.0	100.0	100.0	100.0	100.0

Source: Statistics Canada, Canadian Community Health Survey, 2003.⁵⁴

Financial Security

⁵⁴ Statistics Canada, Canadian Community Health Survey, 2003. Reproduced in Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 88 (edited for content by author).

The financial situation of seniors in Canada has improved significantly over the last 25 years. Between 1980 and 2003, the average total before-tax income received by senior couples increased from \$39,800 to \$49,300, an increase of 24%.⁵⁵ Between 1980 and 2003, the share of seniors in low income declined from 34% to 15%, while their overall wealth, as defined as total assets minus total debts, increased.

Between 1980 and 2003 the proportion of men aged 65 or older receiving 'retirement income' from pensions and other private sources increased from 40% to 70%, with the average amount received by recipients increasing from \$10,700 to \$17,900. Similarly, the share of women aged 65 or older receiving retirement income more than doubled (from 19.7% to 53.0%), with the average amount received increasing from \$6,900 to \$10,200. Improvements to the financial situation of seniors have resulted from improvements to the Canadian / Quebec Pension Plans (C/QPP), as well as expanded coverage of private occupational pension plans and improvements to the features of these plans.⁵⁶

When all sources of other income are considered, however, over 95% of seniors received income from Old Age Security (OAS), the Guaranteed Income Supplement (GIS) or Spouses Allowance (SA), all federally funded sources. That said, during the period 1983 to 2003 the percentage of senior men's total income represented by OAS/GIS/SA fell slightly from 22.8% to 18.4%, and from 44.1% to 31.7% for senior women. Over the same period, however, the percentage of total income represented by C/QPP has doubled for senior men and tripled for senior women. The net result of these adjustments is that the total percentage of retirement income for both senior men and

⁵⁵ All figures in constant 1980 dollars.

⁵⁶ *Ibid.*, 64-71.

women originating from federal/provincial sources appears to have remained relatively constant, as depicted in Table 4. The percentage of both men and women receiving income from OAS/GIS/SA sources has hovered in the mid to high 90 percent range, while those receiving CPP income has increased for both men and women, to approximately 96% and 86% respectively. Note that the CPP is a contribution-based program and not funded from tax revenue, and therefore is not dependent upon federal budget spending.

Table 4 - Percentage of Total Income for Seniors from Federal Sources, by Sex, Selected Years

	1980	1984	1988	1992	1996	2000	2003
Men							
OAS/GIS/SPA							
Percentage receiving income from source	96.0	96.3	96.3	98.0	96.8	95.1	93.6
Average income received	6,300	6,900	6,700	6,700	6,400	6,100	6,100
Percentage of total aggregate income	22.8	24.7	23.9	23.7	21.0	19.4	18.4
CPP/QPP							
Percentage receiving income from source	68.6	74.4	82.3	87.2	91.8	94.1	95.8
Average income received	4,000	5,100	6,100	6,500	6,800	6,700	6,500
Percentage of total aggregate income	10.4	14.2	18.5	20.2	21.1	20.9	20.2
Women							
OAS/GIS/SPA							
Percentage receiving income from source	96.7	97.1	97.6	98.0	97.0	97.2	97.4
Average income received	6,800	7,600	7,600	7,400	7,200	6,800	6,700
Percentage of total aggregate income	44.1	45.2	44.4	39.7	37.2	33.7	31.7
CPP/QPP							
Percentage receiving income from source	34.8	41.7	54.2	64.4	74.0	80.5	85.8
Average income received	3,100	3,800	4,100	4,500	4,700	4,900	4,900
Percentage of total aggregate income	7.3	9.7	13.3	15.8	18.5	20.1	20.5

Source: Statistics Canada, Canada Survey of Consumer Finances; Survey of Labour and Income Dynamics.⁵⁷

⁵⁷ *Ibid.*, 94, extract from Chart 2.2.3.

The take away is that over 90% of senior men and women rely to some degree on publicly funded retirement income derived from federal sources. As the total number of seniors entering retirement increases dramatically between 2011 and 2031, so too will the costs of funding these programmes. It is no surprise that public pension plans and retirement income programs have been at the heart of considerable discussion for much of the last decade. Fueled by the coming “aging crisis”, the debate over the social burden of aging has centred on what effectively constitutes 25% of all government spending in industrialized countries, the single largest component of public funds that is directly attributable to older people.⁵⁸ In Canada, CPP payments amounted to 32 billion dollars in FY 2010/11,⁵⁹ while approximately 37 billion dollars in federal spending was committed to retirement income programs alone (OAS, GIS, SA),⁶⁰ and this amount has been rising at a rate of about one billion dollars a year due primarily to an increasing number of beneficiaries.⁶¹

At the same time, both public companies and privately-traded companies have continued a general move away from defined benefit (DB) pension plans, where employees have an assured and predictable level of pension income under an employer-funded model, towards defined contribution (DC) pension plans, where contributions are shared and pension income levels are dependent upon the performance of the investment

⁵⁸ Phil Mullan, *The Imaginary Time Bomb: Why an Aging Population is Not a Social Problem*. (London: I.B. Taurus, 2002), 148.

⁵⁹ Human Resources and Social Development Canada, “2010-11 Report on Plans and Priorities,” available at <http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/csd/csd01-eng.asp#1.7> ; Internet; accessed 3 April 2011.

⁶⁰ *Ibid.*

⁶¹ Human Resources and Social Development Canada, “2006-07 Report on Plans and Priorities Part 3,” available at http://www.tbs-sct.gc.ca/est-pre/20052006/SDC-DSC/SDC-DSCr5602_e.asp; Internet; accessed 3 April 2011.

vehicles in which the plan has invested.⁶² This move results partly from US government pressure to force companies to fully fund their future pension liabilities, which many avoided doing in order to maintain profit margins, invariably leading to government pension “bail outs” at public expense. In essence, this transfers the investment risk to the employees, thereby threatening the level of guaranteed retirement income they might receive under their plan. Most disadvantaged are those who enter a DC pension plan later in life, as they do not have the luxury of time to enhance the value of their plan; this is often the case for employees of companies who switched over from a DB plan to a DC plan, where a lump sum payment is made in conjunction with the commencement of contributions.

Canada maintains a very respectful social contract with the nation’s seniors, acknowledging the contributions they made in their earlier lives and seeking to protect them and maintain their quality of life in their later years. Unless there is a fundamental shift in this commitment, a highly unlikely and undesirable change, any substantial increase in the number of seniors will require a significant increase in the federal funding dedicated to retirement income programs. This will be further compounded by DC pension plan incomes, which will be subject to either the uncertainty of investment manager speculation, or the lower returns associated with more conservative investment decisions.

Another measure of the impact of an aging population on the work force is the old-age dependency ratio, that is the number of people between the ages of 15 and 64 (“the workers”) in relation to the number of people aged 65 and over (“the old-age

⁶² IBM, Verizon, Lockheed Martin and Motorola are a few examples. See <http://www.investopedia.com/articles/retirement/06/DemiseofDBPlan.asp>. For more, see Toronto Star, 10 May 2007 available at <http://www.thestar.com/columnists/article/212352>.

dependents”).⁶³ The national old-age dependency ratio, currently at 20% (based on 20 old-age dependents for each 100 workers), has been rising steadily since 1971, will rise more sharply between 2012 and 2031 to or 40%, and will reach an all-time high of 50% by 2050.⁶⁴

Specific regions of Canada, namely the Atlantic Provinces, will experience much higher old-age dependency ratios than they do today, where they hover very close to the national average of 20%. This will be due to the faster rate of aging arising from a higher concentration of seniors. See Figure 4.

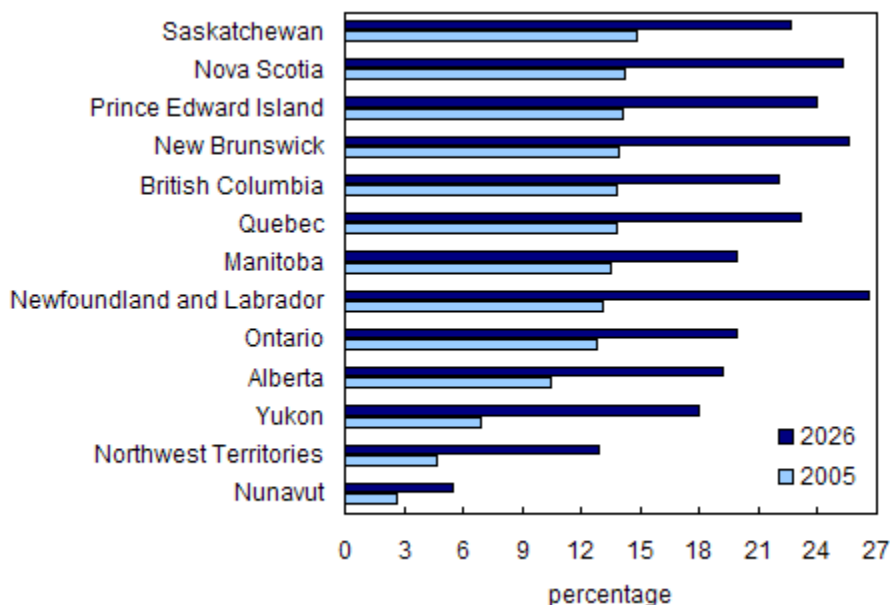


Figure 4 - Percentage of Population Aged 65 or Older Comprised of Seniors, by Province, 2005 and Projection for 2026

Source: Statistics Canada, Censuses of Canada.⁶⁵

⁶³ The Atlas of Canada, “Old Age Dependency Ratios,” <http://atlas.nrcan.gc.ca/site/english/maps/health/ruralhealth/agingpop/dependencyratios2000>; Internet; accessed 3 April 2011.

⁶⁴ Statistics Canada, Population Projections for Canada, Provinces and Territories, 2000-2026, March 2001, Table 21, 77.

⁶⁵ Statistics Canada. Censuses of Canada, Population Estimates, Population Projections for Canada, Provinces and Territories 2005; http://www.statcan.ca/english/freepub/89-519-XIE/2006001/charts/chart1_4.htm; Internet; accessed 3 April 2011.

This will translate into vastly higher than average old-age dependency ratios for the Atlantic Provinces. By the year 2040, Newfoundland will have the dubious honour of leading the way with an old-age dependency ratio of 56%, followed closely by New-Brunswick and Nova Scotia at 50%, and PEI at 47%, all well above the forecast national ratio of 39%.⁶⁶ This regional disparity will cause greater economic impact in the East in the form of higher fiscal pressures (health care, wage tax rates and income inequality).⁶⁷

Various options for countering this ever-decreasing old-age dependency ratio at the national level have been proposed, including increasing immigration targets, either with or without an alteration to the age composition of immigrants i.e. by only accepting “younger” immigrants, the average age of the population should naturally fall. A study sponsored by the C.D. Howe Institute⁶⁸ indicated that for such an approach to have a meaningful effect, the “age filter” would have to be so extreme and the number of immigrants so high that it would prove not only impractical, but questionable from a moral perspective.⁶⁹ Rather, the authors proposed gradually raising normal retirement age in light of increased longevity, a trend towards later entry into the workforce and a reduction on the number of physically demanding occupations.⁷⁰

⁶⁶ Human Resources and Social Development Canada, “Table 1, Old-Age Dependency Ratio in Canada: 1996, 2040,” <http://www.hrsdc.gc.ca/en/cs/sp/sdc/pkrf/publications/research/2002-000174/page04.shtml>; Internet; accessed 3 April 2011.

⁶⁷ See the highly technical economic simulation model at <http://www.hrsdc.gc.ca/eng/cs/sp/sdc/pkrf/publications/research/2002-000174/page05.shtml>.

⁶⁸ Yvan Guillemette and William B.P. Robson, *No Elixir of Youth: Immigration Cannot Keep Canada Young*, Toronto: C.D. Howe Institute, 2006, available at http://www.cdhowe.org/pdf/backgrounder_96.pdf; Internet; accessed 28 March 2011, 6-7.

⁶⁹ Even if sufficient numbers of young immigrants (300,000 to 400,000 annually) could be attracted to Canada versus other competing nations with similar requirements, an immigration policy of this type would all but eliminate family reunification as it is practiced currently, and severely challenge Canada’s absorption capacity by flooding the labour market and lowering wages.

⁷⁰ Guillemette and Robson, *No Elixir of Youth*, 8.

Living Arrangements

Canada is becoming an increasingly urban nation. Between 1981 and 2001, the share of all Canadians residing in large urban centres, or Census metropolitan areas, increased from 58% to 65%. Approximately 80% of seniors live in urban communities.⁷¹ In Canada's three largest urban areas - Toronto, Vancouver and Montréal - seniors account for 11.1%, 12.1% and 13.0% of the population respectively, totaling almost one-third of all seniors in Canada.

One of the consequences of urbanization is the concentration of “demand” e.g. for social, health and emergency services, and an increased reliance on infrastructure that, in many cases, is already under some stress, if not already overburdened. According to Thomas Homer-Dixon, former Director of the Trudeau Centre for Peace and Conflict Studies and author of *The Upside of Down*:

A society is more likely to experience breakdown when it's hit by many severe stresses simultaneously, when these stresses combine in ways that magnify their synergistic impact, and when this impact propagates rapidly through a large number of links among people, groups, organizations and technologies. When a society has to confront a bunch of critical problems at the same time, it can't easily focus its resources on one and then move on to the others. A society overloaded with stresses breaks down.⁷²

In an increasingly urbanized society, demands for energy, health care, food, water, sewage treatment, etc become progressively more focused on limited sources; the effects of a catastrophic failure in any one source are likely to be magnified, particularly in locations that are home to a growing senior cohort with a higher level of dependence on external support, and hence, greater vulnerability in the face of catastrophes. One might

⁷¹ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 27.

⁷² Thomas Homer-Dixon. *The Upside of Down*, 110.

look to the tragic effects of the earthquake and tsunami that devastated northern Japan on 11 March 2011, and the multitude of consequences that have ensued.

At a certain point in their lives, seniors decide to abandon their traditional family dwelling, either to avoid the physical work associated with home / yard maintenance or due to challenges with health or physical mobility. They often choose to adopt apartment or condominium style living, which in urban areas, usually equates to high-rise buildings, or retirement residences. In either case, the high dependency on modern conveniences such as elevators, or in-house services (feeding, medical, etc) places seniors at higher risk in the event of any catastrophe that affects power and communication grids, or that causes employee absenteeism.

According to the 2001 Census, just over two thirds of seniors aged 75 and over lived in private households, while the remaining third resided in healthcare institutions. Institutional residency appears age-related, ranging from 2% among seniors aged 65 to 74 to 32% among those aged 85 and over. Since the early 1980s, there has been a steady decline in the rate of institutionalization of seniors, particularly among seniors aged 85 and over.⁷³

The general decline in institutional living may be indicative of a higher level of independence and quality of life enjoyed by seniors, an increased propensity for seniors to reside with one of their children, or it might possibly reflect the aversion some seniors have to such living arrangements based on witnessing the unpleasant experiences of their parents and grandparents. In any event, the result is a greatly dispersed client urban footprint for care givers and emergency responders. On one hand, this places less strain

⁷³ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 138.

on the overall health care system as home care is less costly than institutional care with its associated overhead costs (infrastructure, utilities, management). On the other hand, it creates greater challenges for emergency responders in scenarios like massive power outages, floods, or epidemics.

Support Networks

As people grow older, they rely increasingly on others for various forms of assistance and support, mainly due to the effects of aging and long-term health problems. Requirements for support can range from yard work, house cleaning, transportation, and banking to personal grooming, bathing and medication. About 29% of seniors aged 75 and over receive transportation help from outside their household. More than one third of seniors aged 85 and over require assistance with personal hygiene care.⁷⁴ The likelihood of a senior requiring assistance is higher when living alone, as evidenced in Figure 5.

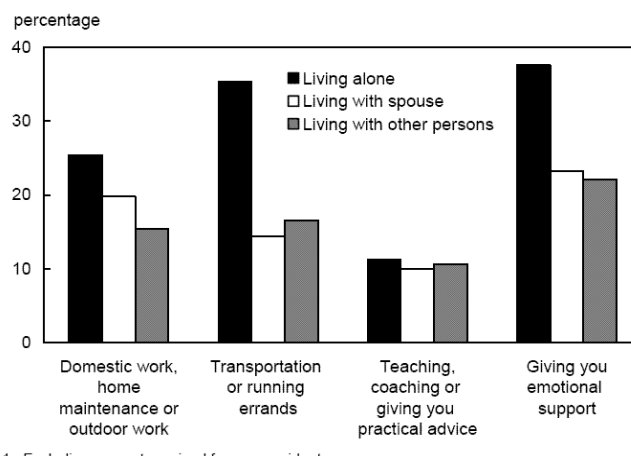


Figure 5 - Percentage of Seniors Who Were Helped in the Previous Month, by Living Arrangement, 2003

Source: Turcotte and Schellenberg, *A Portrait of Seniors*.⁷⁵

⁷⁴ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 153.

⁷⁵ *Ibid.*, 154.

In 2002, close to one million seniors living in private dwellings indicated they received help because of a long-term health problem or physical condition. This amounted to 26% of all Canadians aged 65 or over. Seniors over the age of 85 were almost four times more likely to have received assistance than the 65 to 74 year cohort. Approximately 34% of seniors between the ages of 75 and 84 received help. In every age group, women were more likely to receive care than men.⁷⁶ Sources of support vary widely, but Figure 6 shows that this support consists primarily of government and non-governmental organizations, followed closely by one's family (spouse, children, or other relatives) and then paid employees.

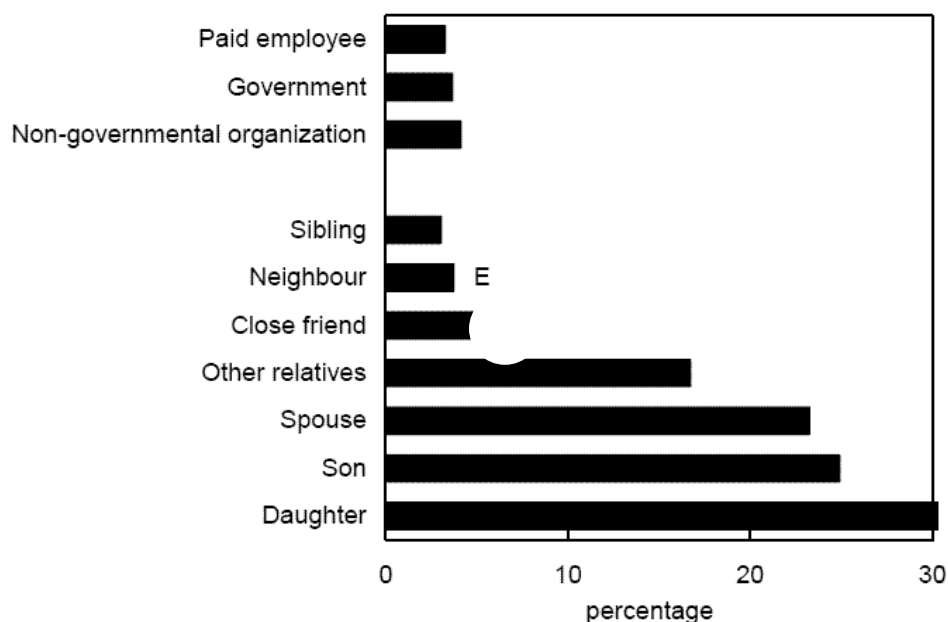


Figure 6 - Seniors Who Received Help With Shopping, Transportation or Bill Paying Due to a Long-term Health Condition: Sources of Help, 2002.

Source: Turcotte and Schellenberg, *A Portrait of Seniors*.⁷⁷

⁷⁶ Martin Turcotte and Grant Schellenberg. *A Portrait of Seniors in Canada*, 164.

⁷⁷ *Ibid.*, 169.

The main demographic factor that will influence the provision of assistance to future seniors is of their own “making”, or rather, the lack thereof. As a result of lower fertility rates, the baby boomers had a significantly smaller number of children than preceding generations, thereby reducing the capacity for drawing on care and support from their offspring. This trend is depicted in Figure 7. Presumably this will place greater demand on other sources of care and support, which will result in an increasing reliance on public funding.

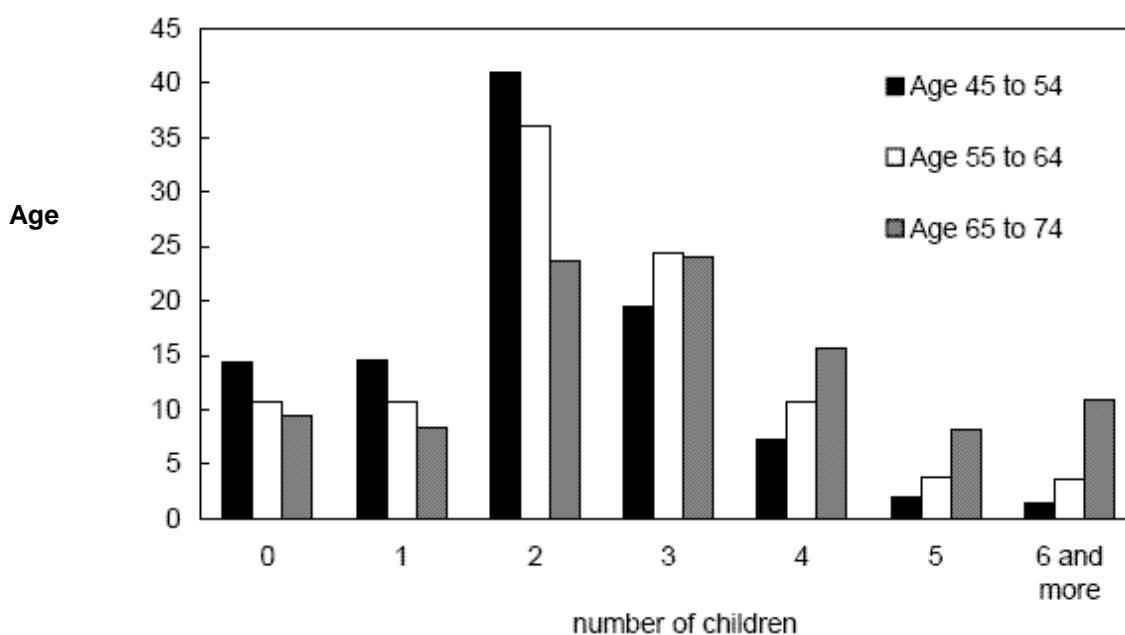


Figure 7 - Number of Children Ever Raised and Still Living, by Age Group, 2002

Source: Turcotte and Schellenberg, *A Portrait of Seniors*.⁷⁸

⁷⁸ *Ibid.*, 169.

Summary

The foregoing review of certain social aspects of the current generation of Canadian seniors, namely health and wellness, financial security, living arrangements, and support networks, reveals some general characteristics which will have either direct or indirect implications for national security. These characteristics include a greater demand for and reliance on the health care system, a greater reliance on external support for day to day living, and a resultant vulnerability in the face of threats to their support system. From a financial perspective, there is a tremendous reliance on some degree of publicly funded retirement income derived from federal sources, and a burgeoning and persistent increase in the old-age dependency ratio, with potential negative economic consequences. Seniors are increasingly taking up residence in urban centres, either living independently or in health care institutions, where they place heavier demands on limited community services and resources of varying types, including government and non-government organizations. Whereas traditionally seniors could rely to a large extent on their children for personal care and support, the lower fertility rate of the Baby Boomers has eroded this capacity, which will only magnify the impact on other sources of support.

In short, the capacity of the supporting networks upon which future seniors must rely could easily become stressed and highly susceptible to disruptions, either natural or man-made. The future fragility of our social and, indeed, security framework is blatantly obvious. As Homer-Dixon writes:

. . . and almost all the systems we rely on – from electrical grids to banks to governments – are intricate combinations of machines, people, and organizations. In a world of ever-increasing connectivity and speed, unanticipated interactions among previously separate systems happen more often, as do unanticipated

combinations of failures within systems. And the likelihood rises that some of these combinations will cause catastrophe.”⁷⁹

What implications might the coming “Grey Wave” have on national security?

Will our social and security frameworks be resilient enough to withstand major stresses and prevent potentially catastrophic consequences for our society’s most respected and vulnerable citizens, the aged?

IMPLICATIONS FOR NATIONAL SECURITY

In order to properly assess the implications of an aging population for Canada’s national security, it is first necessary to define national security in order to frame the discussion. Given the scope of this paper, national security will be considered from a (mainly) domestic perspective. This section will then examine several potential impacts, direct and indirect, of population aging on national security, focusing on the areas of workforce recruiting, immigration, domestic emergencies, and finally, security and defence spending.

Workforce Recruiting

To the casual observer, an obvious effect of an aging population might be felt in the labour market, more specifically in the form of a shrinking recruiting pool. If there are more old people and fewer young people, then one might surmise there should be a shortage of human capital entering the workforce as older workers retire. In the case of

⁷⁹ Thomas Homer-Dixon, *The Upside of Down*, 116.

national security, municipal and provincial emergency responders (police, fire, medical), as well as national institutions such as the Canadian Forces (CF), the Royal Canadian Mounted Police (RCMP), and the Canada Border Services Agency (CBSA) tend to target a more youthful segment of the population. In total, these and other security organizations recruit thousands of people on an annual basis.⁸⁰

Faced with the impending retirement of the Baby Boomers at the same time as many security organizations are attempting to grow in response to the domestic threat of terrorism, their annual intake requirements are increasing. Fortunately, even though the average and median ages of the Canadian population are rising, so too is the absolute number of people entering the labour force as Canada's population continues to grow through a combination of natural fertility and immigration. And since the labour market functions on a supply and demand basis, any critical employment positions that must be filled will be filled through normal market adjustments to salaries and benefits. The overall aging of the population will not have insurmountable effects on the recruiting requirements of Canada's security and defence institutions, provided there are sufficient financial resources to provide suitably competitive salaries and benefits, and there exists the political will to commit these funds to defence and security.

Immigration

Increasing the level of immigration has been proposed as a measure for countering Canada's aging population trend, and to reduce the old-age dependency ratio.

⁸⁰ Approximate annual recruiting target from various sources: Canadian Forces – 2011/12: 9414 (source - Commander CF Recruiting Group); RCMP –1792 <http://www.rcmpwatch.com/rcmp-start-aggressive-recruitment-campaign/>; and CBSA –1300 (CBSA web site <http://www.tbs-sct.gc.ca/rpp/2008-2009/inst/bsf/bsf04-eng.asp>).

As discussed earlier, a policy of increased immigration can at best slow the overall rate of population aging; it cannot reverse it without drastic and unacceptable measures.

However, a properly formulated immigration policy with increased targets would serve to increase the overall population and labour force growth rates, and to address specific labour-market shortages; this has convinced recent governments to pursue this tact.

In the 2004 Annual Report to Parliament on Immigration, the Government of the day committed to admitting between 220,000 and 245,000 permanent residents in 2005. In the end, 262,236 were admitted, of which 156,310 admissions (60% of the total) were in the Economic Class and the remaining 105,926 admissions in the non-economic class. “These larger-than projected admission numbers were the result of higher admissions of skilled worker applicants and their dependents – in part because some applicants arrived in Canada more quickly than is usually the case – and an increase to the Parents and Grandparents immigration category admissions [emphasis added] because of increased processing efforts.”⁸¹

In 2005, the Minister of Citizenship and Immigration proposed an increase to the annual immigration level from 262,000 (or 0.81% of the population) to 320,000 (1% of the population). This would have equated to a 45% increase over the average annual rate of the previous 10 years, which was approximately 220,000. For 2007, the level was increased to between 240,000 and 260,000, with yet another increase to the Parent and Grandparent category (total between 18,000 and 19,900).⁸² Subsequent annual national Immigration Plans up to and including 2011 have maintained immigration levels at

⁸¹ Citizenship and Immigration Canada, *Annual Report to Parliament on Immigration 2006*, available at <http://www.cic.gc.ca/english/resources/publications/annual-report2006/section1.asp> ; Internet; accessed 28 March 2011.

⁸² *Ibid.*, 9.

between 240,000 and 265,000.⁸³ According to Guillemette and Robson, in order for immigration to be effective at ensuring population growth while maintaining the current 20% old-age independency ratio, the annual immigration level would have to be targeted at people between the ages of 22 and 24, and the level increased to 1.2 million per year, or 2.5% of the population.⁸⁴

As will be demonstrated in the following discussion of immigration screening, this approach would present considerable risk from a national security perspective. Even at a target equivalent to just 1% of the population, increased levels of immigration could present a higher risk of infiltration by criminal and terrorist elements. How effectively are current and future immigration applicants being screened from a security perspective, and what is the capacity of security institutions to deal with an increased volume?

According to CSIS, terrorist groups are widely known to be operating in Canada. “Our country’s openness and respect for human rights also make it attractive to members of terrorist organizations bent on using Canada as a base to support their activities.”⁸⁵ Public Safety Canada lists a total of 42 “entities” associated with terrorism, including Al Qaeda, Hamas, Hezbollah, Kurdistan Workers Party, and Liberation Tigers of Tamil Eelam.⁸⁶ A report by the US Library of Congress cites that there were about 50 terrorist groups using Canada as a base for activities in 2000, and also highlights the widespread presence of several notorious Asian crime gangs such as the “Big Circle Boys” and the

⁸³ Citizen and Immigration Canada, “Annual Reports to Parliament on Immigration”, available at <http://www.cic.gc.ca/english/resources/publications/index.asp#immigration>; Internet; accessed 3 April 2011.

⁸⁴ Guillemette and Robson, *No Elixir of Youth*, 9.

⁸⁵ Canadian Security Intelligence Service, “Backgrounder #8 Counter Terrorism”, Revised June 2007; available at <http://www.csis-scrs.gc.ca/nwsrm/bckgrndrs/bckgrndr08-eng.asp>; Internet; accessed 28 March 2011.

⁸⁶ Public Safety Canada, “Currently Listed Entities,” available at <http://www.publicsafety.gc.ca/prg/ns/le/cle-eng.aspx> ; Internet; accessed 28 March 2011.

“14k Triad”, the fastest growing such group in Canada. Groups such as these are reportedly heavily involved in the trafficking of heroin and women, as well as credit card counterfeiting and identity theft. The Library of Congress report goes on to recommend that “Canadian authorities should therefore emphasize port security and immigration policy as a means of ensuring that Asian organized crime and terrorist groups cannot enter Canada in the first place.”⁸⁷

In response to the attacks of September 11, 2001, the government gave greater powers and resources to the CSIS Security Screening process. Bill C-11, the *Immigration and Refugee Protection Act*, provides for front-end screening intended for those Citizenship and Immigration applicants in the refugee stream who may be security risks and allow for their early removal from Canada. “The goals of the Security Screening program are to prevent non-Canadians who pose security concerns or risks from entering or receiving permanent residence in Canada and to prevent anyone of security concern from gaining access to sensitive government assets, locations or information.” This “first line of defence” against terrorism is effected through liaison offices in Canadian missions abroad, where CSIS performs “in-depth examinations of applicants and prospective immigrants whose backgrounds present security concerns.”⁸⁸

The volume of screening cases is astounding, and growing; during 2001, CSIS reviewed a total of 233,206 immigration and citizenship applications, over three times as many as 1996.⁸⁹ In 2005/06 this number grew to 400,000, peaked at 434,100 in 2006/07

⁸⁷ Neil S. Helfand, *Asian Organized Crime and Terrorist Activity in Canada, 1999-2002*, Washington: Library of Congress - Federal Research Division, 2003, http://www.loc.gov/rr/frd/pdf-files/AsianOrgCrime_Canada.pdf; Internet; accessed 28 March 2011.

⁸⁸ Canadian Security Intelligence Service, “Security Screening”, available at <http://www.csis-scrs.gc.ca/prrts/scrtscrmng-eng.asp>; Internet; accessed 28 March 2011.

⁸⁹ Canadian Security Intelligence Service, “Backgrounder #8 Counter Terrorism” June 2007.

and has since fallen to 329,000 in 2008/09.⁹⁰ While the number of screening investigations that result in “adverse information” and require the generation of a “brief” are quite small, they do number in the hundreds. The figures presented thus far do not include other screening efforts conducted by CSIS, such as the 36,000 visa applications of foreign nationals or the 3,000 Free and Secure Trade Programme security assessments of cross border truck drivers.⁹¹ The thoroughness of CSIS’ efforts in this regard require considerable resources, and are no doubt prone to the same pressures experienced in many other agencies – to do more with less.

In addition, Bill C-11 strengthened Canada's ability to detect and refuse entry to suspected terrorists by streamlining the process for deporting anyone who gains admittance and is later found to be a security threat, sharply limiting the right of refugee claimants to appeal if their claims are rejected on grounds of national security, and authorizing immigration officials to deny access to the refugee system to any suspected terrorists. The degree to which this enabling legislation is actually enacted is debatable.

CSIS also plays a significant supporting role within our borders, where the national counter-terrorism mandate rests with the RCMP. Within its national counter-terrorism strategy, the RCMP focuses on reducing the threat of criminal terrorist activity in Canada, with the assistance of CSIS and other international security partners. One measure is to ensure “border integrity and working with partners to create ‘smart borders’

⁹⁰ Canadian Security Intelligence Service, “CSIS Annual Public Report”, available at <http://www.csis-scs.gc.ca/pblctns/nmlrprt/index-eng.asp>; Internet; accessed 3 April 2011.

⁹¹ Canadian Security Intelligence Service, “Public Report 2005–2006,” Table 3, available at <http://www.scs.gc.ca/pblctns/nmlrprt/2005/rprt2005-eng.pdf>; Internet; accessed 28 March 2011.

that will prevent the entry of those who create a terrorist threat.”⁹² The RCMP’s National Security Criminal Investigations Program, formerly known as the Criminal Intelligence Directorate, “aims to reduce the threat of terrorist criminal activity in Canada and abroad by preventing, detecting, investigating, and gathering evidence to support the prosecution of those involved in national security-related criminal acts”.⁹³

One of the challenges of dealing with “imported” organized crime and terrorist groups in an effective manner lies in their ability to infiltrate and integrate themselves amongst honest and legitimate ethnic communities and organizations, where they exist either in quiet anonymity (potential terrorists may not have yet engaged in criminal activity and are therefore difficult to recognize), or openly (organized crime) by fostering a climate of fear through intimidation and violence. National Security measures such as the creation of the Integrated Threat Assessment Centre (ITAC) and the Cross-Cultural Roundtable on Security are designed to assist in countering this challenge.

Within its National Security Program, the RCMP has implemented a broad community outreach program in “a comprehensive effort to engage all of Canada’s ethnic, cultural and religious communities in the protection of Canada’s national security.”⁹⁴ A National Security Information Line 1-800 number has also been established to encourage citizens to report information regarding terrorism, criminal extremism or suspicious activities that could pose a threat to national safety and

⁹² Royal Canadian Mounted Police, “Year in Review 2009-2010”, available at <http://www.rcmp-grc.gc.ca/nb/publications/annualreport-rapportannuel/2010/prior-eng.htm>; Internet; accessed 28 March 2011.

⁹³ Royal Canadian Mounted Police, “National Security Criminal Investigations Program”, available at <http://www.rcmp-grc.gc.ca/nsci-ecsn/index-eng.htm>; Internet; accessed 28 March 2011.

⁹⁴ *Ibid.*

security.⁹⁵

The effectiveness of these and other measures is difficult to gauge; the arrest in 2006 of the Toronto 17(+1) is a positive indication of counter-terrorism efforts, however the suspected terrorists in that case were “homegrown”. What is apparent is that any increase to Canada’s already elevated levels of immigration will result in greater opportunity for Canadian-based crime and terrorist elements to bolster their presence and operations in Canada, and for new organizations to secure a foothold within Canada’s borders. This clear and present danger must be addressed, not only for purely Canadian security reasons, but also to allay U.S. security concerns. The Canada / US trade relationship is very vulnerable to any border-related issues involving security, and Canada can ill-afford a repeat of the 12 September 2001 border closure.⁹⁶

Domestic Emergencies

The Canadian Forces has a long, proud tradition of responding to natural disasters that overwhelm civilian authorities and threaten the well-being of Canadians. In recent decades, calamitous natural events such as the Manitoba and Saguenay floods (1997), the Ice Storm in central Canada (1998), hurricanes in Atlantic Canada (2003 and 2010) and raging forest fires in British Columbia (2003 and 2006) have threatened the physical and economic well-being of Canadians. With global warming, the frequency of such events is expected to increase due to significant shifts in weather patterns, which will also bring more frequent periods of temperature extremes that result in tremendous demand for

⁹⁵ *Ibid.*, the number is 1-800-420-5805.

⁹⁶ More than \$1B in trade crosses the Canada/US border each day, much of it in support of industries that rely on just-in-time delivery of resources or components e.g. auto industry in Ontario/Michigan. Any closure of the border has an immediate and significant financial impact on such industries.

energy (for heating during cold weather and air conditioning during heat waves). Other serious incidents have plagued central Canada, threatening the well-being and livelihood of Ontario citizens: water supply contamination in Walkerton (2000) and Kashechewan (2005), the SARS outbreak in Toronto (2003), and the province-wide power blackout of August 2003 that also affected eight US states. If a province as technologically and economically advanced as Ontario is prone to such events, imagine the overall threat to the remainder of Canada. Add to this the threat of terrorist activity, including chemical, biological, radiological or nuclear attack, cyber attacks on information systems, or physical attacks on critical infrastructure, and the risk to the highly vulnerable, aging population that was described earlier becomes almost unfathomable.

But fathom this risk we must. Such events are no longer rare in Canada, or in the US (Hurricane Katrina as an example), and all levels of government must be prepared to deal with them before they occur. While assessing Canada's emergency preparedness and the role of the federal government in addressing the issue, the Standing Senate Committee on Security and National Defence expressed the opinion that "[w]hen it comes to man-made or natural crises, Canada has a history of muddling through. In a world that has become much more unpredictable, in which nature has become more capricious and man-made threats more ambient, muddling is not enough."⁹⁷ The 2004 Senate report went on to state: "Preventative measures are a tenet of good government and an indicator of an enlightened society."⁹⁸ The report concluded that Canada is an "unready nation" that requires major reforms to the national emergency preparedness

⁹⁷ Standing Senate Committee on National Security and Defence, *National Emergencies: Canada's Fragile Front Lines - An Upgrade Strategy*. Ottawa: Government of Canada, March 2004, available at <http://www.parl.gc.ca/37/3/parlbus/commbus/senate/com-e/defe-e/rep-e/rep03mar04vol1-e.pdf>; Internet; accessed 28 March 2011, 1.

⁹⁸ *Ibid.*, 2.

system and a significant injection of resources in order to achieve the level of preparedness its government owes to its citizens.

In 2004, the federal government released *Securing an Open Society: Canada's National Security Policy* (NSP), listing numerous threats facing Canada, all of which encompass a domestic implication: terrorism, weapons of mass destruction, failed and failing states, foreign espionage, natural disasters, critical infrastructure vulnerability, organized crime and pandemics. The NSP also outlines six key strategic areas requiring attention: intelligence, emergency planning and management, public health, transportation security, border security, and international security. Finally, the NSP highlights the importance of “an integrated national security framework” in order to successfully address the threats.

As a part of the national security framework responsible for the security of Canadian citizens at home, and most importantly as the force of last resort with a “no fail” mission, the Canadian Forces must be prepared to fulfill its critical role in responding to domestic emergencies. As the “cornerstone of CF Transformation”,⁹⁹ the stand up of Canada Command was meant to provide:

. . . an integrated national operational command headquarters [that] will allow the Canadian Forces to bring the best available military resources from across Canada to bear on a crisis or threat, wherever it occurs, nation-wide. The creation of CANADA COMMAND [sic] means that for the first time, a unified and integrated chain of command at the national and regional levels will have the immediate authority to deploy maritime, land and air assets in their regional areas of responsibility in support of domestic operations.¹⁰⁰

⁹⁹ Department of National Defence, *Backgrounder – Canada Command*, available at http://www.dnd.ca/site/newsroom/view_news_e.asp?id=1692; Internet; accessed 28 March 2011.

¹⁰⁰ *Ibid.*

Canada Command and the remainder of the Canadian Forces (CF), in concert with other security partners, have proven they are prepared to deal with major domestic emergencies when called upon to do so. By drawing on the lessons learned from previous aid of the civil power operations e.g. the Oka crisis, as well as from assistance to the civil authority operations e.g. the Manitoba Flood, the Ice Storm, Hurricanes Juan and Igor and forest fires in British Columbia, those responsible for national security and defence planning must now factor in the strategic impact of the age component of demographics. The development of scenarios for future operational and tactical level domestic exercises and plans should include an aging population facet to encourage planners at all levels to identify any CF force structure, employment and equipment issues that require closer attention. This will better situate force development work for potential scenarios in the 2020 horizon and beyond. It is only by identifying such issues in advance of the actual requirement that any necessary organizational, operational and capability changes can be developed and more importantly, funded. As demonstrated earlier, there will be significant competing demands for federal and provincial funding to relieve equally important pressures stemming from the health care and retirement income needs of the aging population.

Federal Budget

The potential effects of an aging population from a health perspective have been shown to be quite dramatic. The higher demand for health services, both in variety and frequency, will place an ever increasing strain on an already over-stretched health care system. If wait times are of concern today, imagine the situation in 2031 when the

number of seniors will be more than double that of today, representing 23% of the overall population. Almost nine million potential “patients”, combined with the likelihood of 32% of them requiring medical consultations six or more times per year, will require an enormous investment of federal dollars in the health care system, or its wholesale redesign.

The current government continues to honour the September 2004 federal-provincial-territorial 10-Year Plan to Strengthen Health Care¹⁰¹, which includes a Patient Wait Times Guarantee “to ensure that all Canadians receive necessary medical treatment within medically acceptable waiting times states” and “that all Canadians have access to the health care services they need, when they need them”. To provide predictable and sustained funding in support of provincial-territorial health systems, Canada Health Transfer (CHT) payments were legislated to increase by 6 per cent annually out to 2013/14¹⁰². This amounted to an additional \$1.5 billion in Fiscal Year (FY) 2010/11, for a total Transfer of \$25.4 billion; this will grow to \$27 billion in 2011-12 and over \$30 billion in 2013-14.¹⁰³ In addition to the CHT, \$5.5 billion in Wait Times Reduction funding was to be provided to provinces and territories between FY 2004/05 and FY 2013/14 as part of the 10-Year Plan.¹⁰⁴ In the Budgetary Estimates for 2011, the Canada Health Transfer payments amount to \$27 billion for FY 2011–12, equal to about 10.8%

¹⁰¹ Health Canada, “First Ministers’ Meeting on the Future of Health Care 2004,” <http://www.hc-sc.gc.ca/hcs-sss/delivery-prestation/fptcollab/2004-fmm-rpm/index-eng.php>; Internet; accessed 3 April 2011.

¹⁰² Department of Finance, <Http://www.fin.gc.ca/fedprov/cht-eng.asp> : Internet; accessed 3 April 2011.

¹⁰³ Department of Finance, “Federal Support to Provinces and Territories”, <http://www.fin.gc.ca/fedprov/mtp-eng.asp> ; Internet; accessed 3 April 2011.

¹⁰⁴ Department of Finance, “Budget 2006 Chapter 3”, <http://www.fin.gc.ca/budget06/bp/bpc3ee.htm#health>; Internet; accessed 3 April 2011.

of the \$251 billion in overall federal spending.¹⁰⁵ Were future governments to continue this level of investment growth in health care, the CHT would reach \$48 billion by 2021.

In 2012, the leading edge of the Baby Boomers will begin to retire in large numbers, putting pressure on publicly funded retirement income programmes. Any increase in the number of seniors will require an increase in federal financial resources dedicated to OAS, GIS and SA. As discussed earlier, approximately 32 billion dollars in federal spending is committed to these retirement income programs for FY 2007/08¹⁰⁶ (equal to 15% of the \$212 billion federal budget), and this amount has been rising at a rate of about one billion dollars a year, due primarily to the increasing number of beneficiaries.¹⁰⁷ Assuming a conservative inflation rate of 2% and only a slight 2% annual increase to the number of beneficiaries between 2006 and 2012, retirement income programs will amount to approximately 44 billion dollars by 2012.

CPP payments will amount to 32 billion dollars in FY 2010/11.¹⁰⁸ The fact that the CPP is a contributions-based program and not fully funded (sometimes referred to as a “pay-as-you-go” plan) means that assets held in the CPP fund are intentionally insufficient to pay for all future benefits that have accrued to date. Future sustainability of the CPP relies on future CPP contributions, plus the assets built up to date, being equal to or greater than CPP benefit payments expected to be paid out. The federal government is

¹⁰⁵ Treasury Board of Canada Secretariat. “20011—2012 Estimates”; <http://www.tbs-sct.gc.ca/est-pre/20112012/me-bpd/docs/me-bpd-eng.pdf>; Internet; accessed 3 April 2011.

¹⁰⁶ Human Resources and Social Development Canada, “2007/08 Report on Plans and Priorities”, available at http://www.tbs-sct.gc.ca/rpp/0708/hrsdc-rhdsc/hrsdc-rhdsc02_e.asp#expenditure_profile; Internet; accessed 22 April 2007.

¹⁰⁷ Human Resources and Social Development Canada, “2005-06 Report on Plans and Priorities Part 3,” available at http://www.tbs-sct.gc.ca/est-pre/20052006/SDC-DSC/SDC-DSCr5602_e.asp; Internet; accessed 22 April 2007.

¹⁰⁸ Human Resources and Social development Canada, “2010-11 Report on Plans and Priorities Section 1,” available at <http://www.tbs-sct.gc.ca/rpp/2010-2011/inst/csd/csd01-eng.asp#1.7> ; Internet; accessed 3 April 2011.

confident that the CPP is on “a sustainable footing for at least the next 75 years”,¹⁰⁹ but recognizes that there is still an underlying intergenerational inequity whereby younger workers are paying a much higher contribution rate than past generations for the same benefits. The government is considering allocating a portion of any unplanned federal budget surpluses to the CPP, which it believes would also lessen the burden on future generations of contributors while encouraging workforce participation. In light of an increasing old-age dependency ratio, signifying that there will be fewer contributors for an increasing number of beneficiaries, this appears to be a wise approach.

The bottom line for security and defence spending is grim. Historically, security and defence spending has been treated as discretionary in Canada. Rather than asking the question “How much [for defence] is enough?”, Dr Joel Sokolsky points out that the Canadian tradition is to ask “How much is just enough?”¹¹⁰ Whether this will in fact constitute an accurate representation of Canadian attitudes towards security and defence in the future remains to be seen. Recent successive federal governments, both Liberal and Conservative, have committed to substantial increases in both areas. The litmus test will come when mounting demands for increased spending on health care and retirement income programs butt up against rising requirements for security and defence spending brought about by plans for recapitalization and personnel growth.

Summary

National security is about protecting the survival of the nation-state, and in a human security context, this equates to freedom from threats to people's rights, their

¹⁰⁹ Department of Finance, *The Budget Plan 2006, Chap 3*.

¹¹⁰ Dr Joel Sokolsky. Over There With Uncle Sam, *The Martello Papers - What NATO For Canada?*, ed. David G. Haglund (Kingston: Centre for International Relations, Queen University, 2000), 32.

safety or even their lives. An increasingly vulnerable aging population will bring about competing demands for limited resources, and this will have significant implications for national security.

In terms of recruiting the work force necessary for security and defence institutions, absolute growth in the number of people entering the labour force (through a combination of births and immigration) will continue to provide a sufficient recruiting pool as long as such employment positions are deemed important enough to justify competitive salaries and benefits in line with labour force expectations, and there exists the political will to commit sufficient funds to defence and security institutions.

Planned increases in immigration levels designed to increase the overall population and labour force growth rates, address specific labour-market shortages, and reduce the old-age dependency ratio will present increased risk of infiltration by criminal and terrorist elements set on gaining a secure foothold or bolstering their present operations within Canada's borders. Continued, and indeed more frequent, demands placed on the national emergency preparedness system in times of domestic emergencies caused by natural or man-made events will require increased resources. An "unready nation", if Canada is indeed such a nation, cannot guarantee the security of its citizens, therefore the CF must, as the force of last resort, plan to fulfill its critical role in responding to domestic emergencies, diligently factoring in the challenges associated with an aging population.

Finally, mounting demands for increased spending to satisfy health care and retirement income needs of senior Canadians will present powerful competition for security and defence spending in times of recapitalization and personnel growth; historic

treatment of such spending as discretionary does not bode well for security and defence institutions.

RECOMMENDATIONS

The nature and extent of several threats and consequences that an aging population could present to national security have been identified; what can be done about them?

Recruiting

The simple fact that the Canadian population is aging does not in itself constitute a challenge for recruiting for the Canadian Forces or emergency services. However, there may be indirect consequences, such as reluctance on the part of potential recruits (particularly specialists/professionals who tend to be older) to sign up for a career which will entail frequent geographic relocations that will remove them from proximity to their aging parents – cases of the so-called “sandwich generation”.¹¹¹ Moreover, retention of long serving members may become dependent upon more flexible HR policies that recognize the responsibility a member may feel for the care of their aging parents. A more flexible CF career model should be examined to cater to the need for geographic stability. Also, consideration should be given to offering flexible work arrangements where possible to satisfy the members’ need to deal with the demands of caring for a family which includes an aging parent or parents.

¹¹¹ The Sandwich Generation is a generation of people who care for their aging parents while supporting their own children.

Immigration

Historically, immigration has been the life blood of our nation and, arguably, has made Canada the envy of many other states that recognize the strength we have achieved through diversity. That said, the practice of increasing immigration levels is not recognized as an effective counter to an aging population, especially when the policy is so generous in terms of family reunification, which results in older family relatives accompanying the working-age immigrants. It also feeds an increasingly widespread view that immigration and multiculturalism have become negative influences. This view has been popularized by a recent book authored by Ottawa radio-host Lowell Green, in which he proposes that “mass immigration has become a form of colonization in major Canadian cities, severely straining social services and infrastructure while posing an increasingly dangerous security risk to us all.”¹¹²

In November 2010, the Government of Canada proposed an amendment to the immigration point system which would favour younger applicants.¹¹³ Immigration Minister Jason Kenney indicated applicants over the age of 49 would receive no points for their age, but that people under the age of 35 would receive 12 points, in the belief that younger immigrants fare better at integrating themselves in an economically productive manner in life in Canada. This age favouritism could have a marginal effect on reducing the age of immigrants, but would have to be accompanied by a revision to

¹¹² <http://www.lowellgreen.com/>; Internet; accessed 9 April 2011. The title of the book is “Mayday! Mayday! Curb Immigration. Stop Multiculturalism Or It’s The End Of The Canada We Know.” Spruce Ridge Publishing, Inc, October 14, 2010.

¹¹³ The current Immigration Point System offers a maximum of 10 points (out of a possible overall score of 100 points) to applicants in the 21-49 age bracket, with the number of points gradually decreasing for lower or higher ages. See <http://www.cic.gc.ca/english/immigrate/skilled/assess/index.asp>.

the family reunification policy i.e. eliminating/reducing the number of older family members allowed to immigrate as dependants of the worker.

Minister Kenney also reported earlier this year that in 2010, Canada admitted 280,636 new permanent residents, the highest number reported in more than 50 years and six per cent more than the government had planned to admit.¹¹⁴ The planned level for 2011 remains between 240,000 and 265,000.¹¹⁵ Given the continued high demand for security screening services, both within Federal and Provincial governments (reliability screening and site access) and for immigration purposes (permanent residents, refugee claimants, and citizenship applicants), resource levels for CSIS should be continuously re-assessed in order to ensure due diligence of this vital aspect of national security. In light of increasing operational activity by CSIS outside Canada's borders, consideration should also be given to the creation of a separate foreign Canadian intelligence service. Such an agency would relieve CSIS of the burden of foreign intelligence operations and allow it to focus its limited resources on the provision of its national security mandate, in the form of diligent security screening of prospective immigrants and asylum seekers.

Domestic Emergencies

Recognizing the vulnerability of an aging Canadian population, particularly in the face of sudden, catastrophic events which will undermine and paralyze existing support networks, contingency planning is the watchword for effective preparedness. The effectiveness of Canada Command and its other safety, security and defence partners

¹¹⁴ Citizenship and Immigration Canada, News Release, 13 February 2011, found at <http://www.cic.gc.ca/english//department/media/releases/2011/2011-02-13.asp> : Internet; accessed 10 April 2011.

¹¹⁵ Citizenship and Immigration Canada, "Annual Report to Parliament on Immigration – 2010"; available at http://www.cic.gc.ca/english/pdf/pub/immigration2010_e.pdf ; Internet; accessed 10 April 2011, p.3.

must be assessed on a continuous basis and exercised frequently. By anticipating and planning for potential threats to Canada and Canadians, including the second and third order effects that such threats pose to older Canadians, Canada Command and Public Safety Canada can draw up appropriate contingency plans for a range of scenarios – from a potential influenza pandemic to a major earthquake – and to make sure these contingency plans cater to the reality of an aging Canadian population. The Canadian Forces, as a recognized “first amongst equals” in terms of planning and consequence management, must proactively engage all levels of government to foster a culture of readiness, for without effective first responders within the civilian sector, the Canadian Forces could easily be drawn into an unenviable situation where it might fail as the force of last resort.

For its own part ship, the Canadian Forces should reassess its own readiness, particularly in terms of its emergency response footprint and contingency plans in light of the regional demographics of aging. The fact that the population of the Atlantic provinces is aging at a faster rate and will therefore become home to a large number of vulnerable Canadians, is a factor which could influence the positioning of Canadian Forces assets, or at the very least, influence the priority for contingency planning. The development of Domestic Response Companies (DRCs) in certain Primary Reserve units capitalizes on the vast urban footprint that allows Reserve units to be first on the scene should a CF response be required. This proved quite effective during the CF’s response to Hurricane Igor, known as Operation LAMA, wherein Reserve elements contributed to a variety of tasks, “including delivering critical supplies such as food, water, medical supplies and fuel; providing medical evacuation; assisting in moving power crews and

materials to repair power grids; delivering generators and re-supplying fuel to main communications nodes; assisting with bridging and road repair and transporting engineering analysis teams.”¹¹⁶ A similar response could be generated in other parts of Canada with proper resourcing and training of Reserve units. Likewise, the increasing urbanization of the population in general, including seniors, must be factored into emergency preparedness planning. Only through such measures can we ensure that Canada sheds the moniker of an “unready nation”, by instituting a robust, integrated, flexible and tested national emergency preparedness system.

Federal Spending

Of all the challenges associated with an aging Canadian population, the most difficult to overcome from a national security perspective will be the inevitable reprioritization of government spending in favour of older Canadians, at the expense of areas like defence, traditionally treated by Canadian governments as discretionary. The rising demand for health spending and increasing costs of retirement programmes will, by their nature, become immutable electoral issues which governments, regardless of their party colours, will have to incorporate into their election platforms. In order to maintain responsible fiduciary stewardship, the money will have to come from somewhere. The traditional tact of raising taxes will not sit well with the electorate, especially with a higher old age dependency ratio which will see far fewer workers supporting older dependants. Other solutions will have to be found by public policy makers with appropriate input and consultation from the defence sector

¹¹⁶ Department of National Defence. Operation LAMA, available at <http://www.canadacom.forces.gc.ca/spec/lama-eng.asp>; Internet; accessed 10 April 2011.

Increased health care costs arising from an aging population presuppose adhering to the existing health care system. The magnitude of the shift in the population's age may call for an equally significant change in the delivery of health care. For instance, proponents of family-managed healthcare¹¹⁷ offer an innovative home care model based on a MEDCottage™, or "Granny Pod". "The MEDCottage™ is a mobile, modular medical home designed to be temporarily placed on a caregiver's property for rehabilitation and extended care. It is a state-of-the-art hospital room with remote monitoring available so caregivers and family members have peace of mind knowing they are providing the best possible care."¹¹⁷ This home-based approach to healthcare would give families the ability to directly participate in their loved ones' recovery, rehabilitation or extended care, and all at one third to one half the average national cost of a nursing home¹¹⁸. It would also relieve the public sector of funding responsibility. Other emerging mobile health care technology also offers an opportunity to shift from an institutionally-based health care system to a mobile, home care nursing system. MedShare's BlackBerry solution allows home care workers to access their client list, client health information and schedule on their BlackBerry device.¹¹⁹

If the government wishes to offload the costs of long term health care, the insurance industry is ready to assist with long term care annuities. These instruments are becoming more commonly available, having been introduced in the United States in 2007 and subsequently granted tax-free status in January 2010. The UK is contemplating their

¹¹⁷ MEDCottage™: available at <http://www.medcottage.com/about/about>; Internet; accessed 10 April 2011.

¹¹⁸ Home Care Magazine: available at <http://homecaremag.com/mag/mobile-home-care-unit-vs-nursing-home-200909/>; Internet; accessed 10 April 2011.

¹¹⁹ Med Share. Available at http://www.medshare.com/PressReleases/MedShareQualicodePR_2010Nov3_Eng.pdf; Internet; accessed 10 April 2011.

introduction in the near future.¹²⁰ By providing incentives for Canadians to assume at least partial responsibility for their own health care needs later in life, the government could create some fiscal flexibility to deal with other pressing requirements like national security.

Finally, and likely the most controversial of any corrective measures in the eyes of the work force, would be the possibility of increasing the normal retirement age. A gradual increase to the normal retirement age seems justifiable based on increased longevity, a trend towards later entry into the workforce resulting from the pursuit of higher education, and a reduction of the number of physically demanding occupations due to advances in technology and growth in the professional services industry. The US and several European countries (France, Germany, United Kingdom) have recently tackled this controversial subject. Developing proper messaging for such a change would be critical. According to researchers at the Toronto-based Mowatt Institute, “increasing the retirement age will be more acceptable to workers if they understand the trade-offs: maintaining current retirement age leads to less secure pensions, higher contributions, and lower benefits; raising retirement age leads to more secure pensions, stable contributions, and higher benefits.”¹²¹ The importance of early notification and socialization of an increase in the retirement age is crucial; the sooner that Canadians and their elected leaders begin a serious dialogue, perhaps prompted and facilitated by an independent commission on pension reform, the sooner effective results can be achieved.

¹²⁰ The Guardian; available at <http://www.guardian.co.uk/money/2010/jul/11/long-term-care-retirement-planning>; Internet; accessed 10 April 2011.

¹²¹ Mowatt Centre; “Why We Need To Raise The Retirement Age; Martin Hering and Thomas Klassen; available at <http://www.mowatcentre.ca/opinions.php?opinionID=33>; Internet; accessed 22 April 2011.

CONCLUSION

Canada's population is aging at a degree and a rate never before experienced in the nation's brief history. Between 1961 and 2006, the average and median ages have increased from about 30 years and 26 years respectively, to close to 39 years in both cases. Today, one in eight Canadians is 65 years of age or older. By the year 2021, almost one in five will be aged 65 or over; by 2031, practically one in four. This will equate to 9.1 million seniors who, as a function of aging, will be highly vulnerable to any one of several natural and man-made threats.

A review of certain social aspects of the current generation of Canadian seniors, namely health and wellness, financial security, living arrangements, and support networks, revealed general characteristics that can lead to implications for national security. These characteristics include greater demands on the health care system and external support for day to day living, as well as reliance on some degree of publicly funded retirement income derived from federal sources and a negative influence on the old-age dependency ratio. Through their accommodation choices, seniors are placing heavier demands on limited community services and resources of varying types, including government and non-government social assistance organizations; this is compounded by the impact of their cohort's lower fertility rate which has eroded the capacity of their children to provide personal living support. In short, the capacity of the supporting networks upon which future seniors must rely could easily become stressed and highly susceptible to disruptions, either natural or man-made.

Finally, an examination of several potential impacts, direct and indirect, of population aging on national security focused on the areas of workforce recruiting,

immigration, domestic emergencies, and finally, security and defence spending. In each area, the potential impact is very real, deriving most notably from increased levels of immigration and competing health and pension demands for federal funding at the expense of security and defence-related programmes.

There is a clear need for public dialogue on the impact an aging Canadian population will have on our nation. Whether national social and security frameworks will prove resilient enough to withstand any major stresses and prevent potentially catastrophic consequences for Canada's future senior citizens remains to be seen. Might what befell the once great Roman Empire have been averted had planners and policy makers fully considered demographic characteristics of their population? Despite Homer-Dixon's hypothesis, the true answer to this question lies buried in the sands of time. What is clear is that Canadian public policy makers and defence planners have the ability to exploit demographic projections today in order to foretell future population age scenarios, and mitigate the risks that these might present to national security through thoughtful policy choices. Anything less would be an abrogation of the responsibility of statehood: providing for the security of the nation's people, both young and old alike.

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