

Security Implications of Demographic Change: A Canadian Perspective

Christian Leuprecht

The world is at a demographic crossroads. Hitherto, high birth rates had ensured predominantly young populations with few older people. War and epidemics, such as the plague, would intervene to depress population growth. By contrast, depressed population growth today is a function of an historically unprecedented decline in birth rates: women are consistently having fewer (or no) children than at any previous time in history (for reasons that are beyond the scope of this research note). Demographically, the world is entering unknown territory owing to historically unprecedented changes in the three variables that make up demography: fertility, mortality, and migration. Differentials in fertility and mortality are not just affecting population structure. Population structure affects political stability, and political instability tends to be a catalyst for migration. By gaining a better grasp of the demographic drivers of political and economic in/stability, Canada can take strategic action to mitigate push factors of migration. Canada's capacity to act in concert with allies, however, is constrained by the costs and stagnant tax base associated with population aging which, in an age of fiscal austerity, is bound to increase competition over scarce resources among different policy priorities and strategic objectives.

Current State of Knowledge

Rarely can analysts claim to be documenting new phenomena. Population aging, however, is one of these revolutionary developments. Never before has humanity witnessed such dramatic, widespread aging among the world's most industrialized and powerful democracies. Two long-term demographic trends coincided to produce population aging: decreasing fertility rates and increasing life expectancy. Fertility rates refer to the average number of children born per woman in a given country. For a state to sustain its population (assuming zero net immigration), fertility levels must exceed about 2.1 children per woman. Today the United States is the only liberal democracy that comes close to meeting this requirement. Most other liberal democracies fell below this threshold some time ago.

While population stagnation and decline mark the global north, population growth will be concentrated in developing countries throughout the global south that are projected to add around 2.3 billion people by 2050. Demographic trends are not only largely irreversible; but demographic projections are more accurate than for just about any other measure in the social sciences. The reason for this certainty is simple: the elderly of the future are already born. Except for some global natural disaster, disease pandemic, or other worldwide calamity, the number of people in the world who are over 65 will grow exponentially over the coming decades. Even in democracies with comparatively good demographic prospects, the proportion of that cohort is projected to double by 2040.

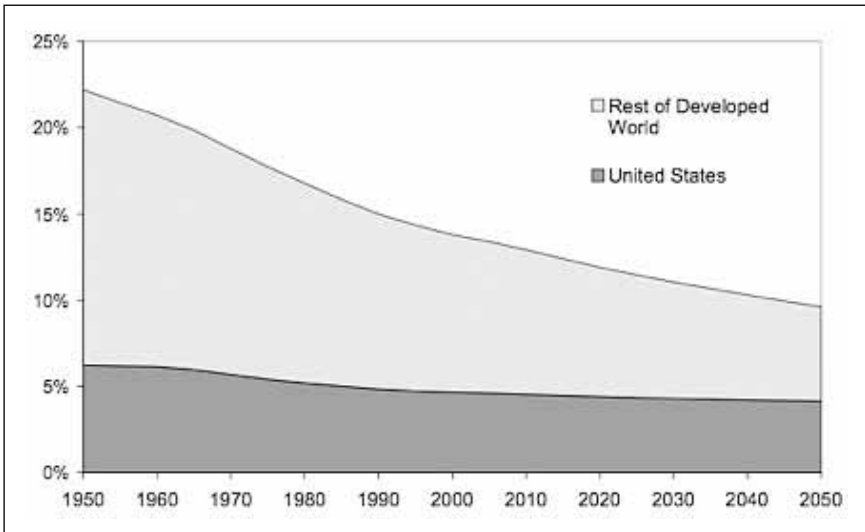
The strain on governments' resources from national debt and the cost of aging populations have the potential to exacerbate systematically both the number of fragile states and the extent and depth of that fragility. Fragile states are not only a catalyst for migration but tend to harbour organized crime and terrorism. The prospect of having to contend with a proliferation of fragile states with fewer resources at the allies' disposal could prove the single greatest security challenge of this century (Jackson and Howe, 2008: chaps. 4–5). This will likely be complemented by an already reduced capacity to realize other key international objectives, including preventing the proliferation of weapons of mass destruction (WMD), funding nation-building, engaging in military humanitarian interventions, and various other costly strategies of international conflict resolution and prevention.

Broad Trends

Population aging will beset much of the world at some point this century. In fact, the aging problem in many developing states is likely to be as acute as for industrialized countries, but the former have the added disadvantage of growing old before growing rich, thus greatly handicapping their ability to pay for elder-care costs. For example, in China the comparative advantage associated with a large working-age population relative to a small proportion of children and elderly will begin to wane around 2015, a problem that will be further exacerbated by a growing excess of men over women. The ratio of working-age adults to elderly is projected to shrink from just under 10 in 2000 to 2.6 by 2050 when China's median age is projected to be just over 45 years of age. That median age will make China one of oldest populations in the world – older than Japan, the country with the oldest population today – and is projected to have a median age of 43 by then.¹

As Figure 1 shows, the proportion of the world's population that resides in advanced industrialized democracies will continue to decline: from 24 percent in 1980, to 18 percent today, and 16 percent by 2025. This is a remarkable reversal: Between 1700 and 1900, Europe's population and its overseas offshoots had doubled its proportion of the world's total population from 20 percent to 40 percent. As late as 1950, Europe, Japan, and North America together comprised roughly one-third of the world's population, compared to one-fifth today and under one-seventh by 2050. That will translate into an expected total increase of less than 40 million people by 2030 (primarily concentrated in North America as Europe's overall population starts to shrink) as opposed to 1.5 billion people in the rest of the world.

In absolute terms, India's population will grow the most (by 240 million to 1.45 billion people followed by an increase of 100 million in China for a total population of 1.3 billion). Growth will also be robust throughout Africa, Latin America, and the Caribbean. By contrast, in Russia, Italy, Japan, and much of Eastern and Central Europe, the population will decline by as much as 10 percent. Bucking the trend are the traditional Anglo-Saxon settler countries – the United States, Canada, Australia, and New Zealand – where population growth between 2010 and 2025 is projected to exceed 10 percent. Its current growth rate of 1.4 percent notwithstanding, China's population, by contrast, is projected to start declining by 2025 (when it will officially be overtaken by India as the world's most populous country although many demographers already believe India to be more populous

FIGURE 1**Developed World Population as a Percentage of World Total**

Source: UN World Population Prospects, 2008; for demographic scenarios see Jackson and Howe, 2008: Appendix 1, Section 3.

than China). Russia's population, by contrast, is projected to fall from 141 to 130 million by 2025 as its population ages rapidly. While these developments have but a moderate effect on the pecking order among the world's three most populous countries, Table 1 shows that the impact on "the rise and fall" of other "great powers" (measured by population size) is marked.

The scope of the aging process is remarkable. By 2050, at least 20 percent of the population in allied countries, but also in China and Russia will be over 65. In Japan it will be as high as one-third of the population. By 2050 China alone will have more than 330 million people over 65. Population aging, as Table 2 shows, is accompanied by a diffusion of absolute population decline. Russia's population is already decreasing by 500,000–700,000 people per year.

Global population is expected to grow by 1.2 billion by 2025, an increase of not quite 20 percent from the current 6.8 billion, and 2.3 billion by 2050. However, that is well below the rate of increase between 1980 and 2009 when the globe's population grew by 2.4 billion. While the rate of growth

TABLE 1
Largest Countries Ranked by Population Size, 1950, 2005, and 2050

<i>Ranking</i>	<i>1950</i>	<i>2005</i>	<i>2050</i>
1	China	China	India
2	India	India	China
3	United States	United States	United States
4	Russian Federation	Indonesia	Indonesia
5	Japan	Brazil	Pakistan
6	Indonesia	Pakistan	Nigeria
7	Germany	Bangladesh	Bangladesh
8	Brazil	Russian Federation	Brazil
9	UK	Nigeria	Ethiopia
10	Italy	Japan	DR Congo
11	Bangladesh	Mexico	Philippines
12	France	Vietnam	Mexico
		(14) Germany	(18) Japan
		(20) France	(26) Germany
		(21) UK	(27) France
		(23) Italy	(32) UK
			(39) Italy

Source: Adapted from Jackson and Howe (2008); future rankings for select developed countries which are projected to fall below 12th place are indicated in parentheses.

is decelerating, the impact of natural increase is still staggering. The populations of 50 countries are projected to grow by a third, in some cases by two thirds, by 2025 (which, of course, places additional stress on natural resources, services, and infrastructure). These are predominantly large, Islamic countries of 60 million people or more that are located primarily in sub-Saharan Africa as well as the Middle East and South Asia. With the demographic transition progressing more rapidly in the Middle East and South Asia (Figure 2), the challenges associated with population growth, such as youth bulges, will be greatest in sub-Saharan Africa.

The youth bulge² (the proportion of the adult population aged 15–29) will be greatest in Afghanistan, Pakistan, the Democratic Republic of Congo, Ethiopia, Nigeria, Guatemala, Iraq, Ethiopia, Angola, Chad and Yemen,

TABLE 2
Countries Projected to Have Declining Populations, by Period of the Onset of Decline, 1981–2045

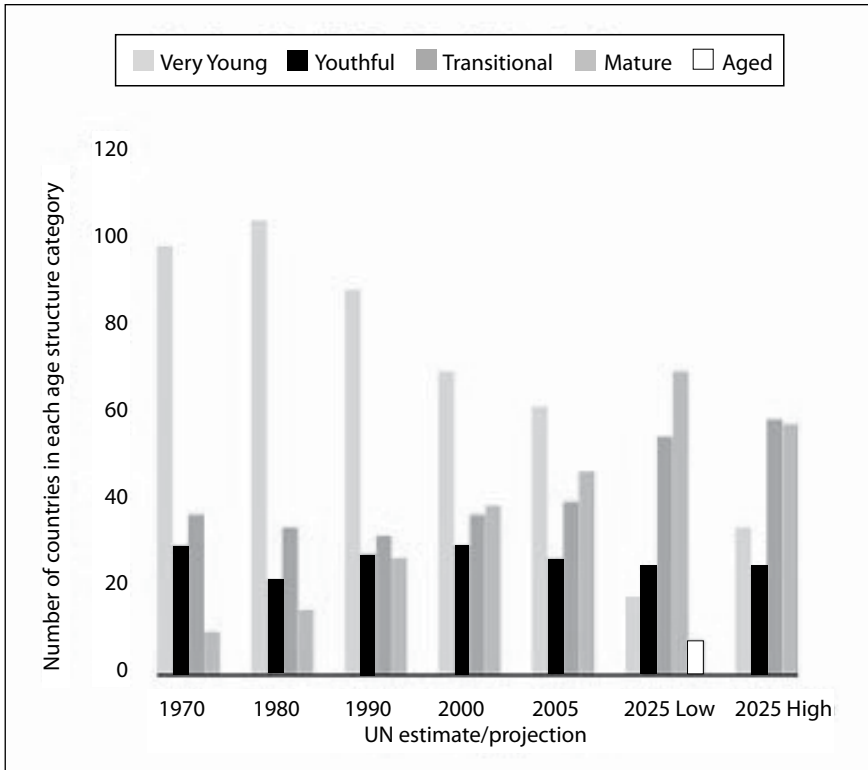
<i>Already declining</i>	<i>Onset of decline: 2009–2029</i>	<i>Onset of decline: 2030–2050</i>
Hungary (1981)	Italy (2010)	Azerbaijan (2030)
Bulgaria (1986)	Slovakia (2011)	Denmark (2031)
Estonia (1990)	Bosnia and Herzegovina (2011)	Belgium (2031)
Georgia (1990)	Greece (2014)	Thailand (2033)
Latvia (1990)	Serbia (2014)	North Korea (2035)
Armenia (1991)	Serbia (2014)	Singapore (2035)
Romania (1991)	Portugal (2016)	Netherlands (2037)
Lithuania (1992)	Cuba (2018)	Switzerland (2040)
Ukraine (1992)	Macedonia (2018)	UK (2044)
Moldova (1993)	Spain (2019)	Puerto Rico (2044)
Belarus (1994)	Taiwan (2019)	Kazakhstan (2045)
Russian Federation (1994)	South Korea (2020)	
Czech Republic (1995)	Austria (2024)	
Poland (1997)	Finland (2027)	
Germany (2006)	China (2029)	
Japan (2008)		
Croatia (2008)		
Slovenia (2008)		

Source: Adapted from Jackson and Howe (2008); excludes countries with populations less than 1 million.

producing population growth rates of over 2 percent annually (see Table 3) with populations in those countries doubling every 30-35 years. Even if fertility rates in Nigeria or Afghanistan were to decline, they are currently so high that, at best, each country might barely transition from a young to a youthful age structure by 2025.

Although youth bulges are on the wane in the Middle East and Southeast Asia, by 2025 three-quarters of the countries with persistent youth bulges will be in sub-Saharan Africa. A key driver of this development is HIV/AIDS which delays the entry of populations with high incidence rates of infection through the demographic transition by compromising the elderly proportion of the population.

FIGURE 2
The Global Population Structure, 1970–2025



Source: Leahy et al., 2007: 19.

Relevant Findings

Countries with youth bulges are depicted in Figure 3. Such countries have been shown to be at greater risk for civil conflict due to strains on systems of schooling and socialization as well as un- or under-employment, concomitant propensity for deviance; countries where more than 60 percent of the population is under 30 have been shown to be four times as prone to civil war than countries with mature populations (Leahy et al, 2007).

Another way to make the case for the correlation between fecundity, youth bulges, and the propensity for conflict is to examine the association

TABLE 3
Fastest Growing Countries 2005–2010 (at least 1 million people)

<i>Country*</i>	<i>Annual Growth Rate, %</i>
Liberia	4.1
Niger	3.9
Afghanistan, Burkino Faso	3.4
Syria, Timor L'este, Uganda	3.3
Benin, Palestine (occupied)	3.2
Eritrea	3.1
Jordan	3.0
Burundi, Tanzania, Yemen	2.9
Chad, Congo (DR), Gambia, Malawi, UAE	2.8
Angola, Rwanda, Madagascar, Sierra Leone	2.7
Ethiopia, Kenya, Senegal	2.6
Guatemala, Togo	2.5
Kuwait, Mali, Mauritania, PNG, Zambia	2.4
Cameroon, Côte d'Ivoire, Guinea, Mozambique, Nigeria, Somalia	2.3
Guinea-Bissau, Iraq, Pakistan, Sudan	2.2
Ghana, Oman, Saudi Arabia	2.1
Honduras, Libya	2.0
Cen.Afr.Rep., Congo, Namibia, Nepal	1.9
Bolivia, Egypt, Gabon, Ireland, Laos, Paraguay, Philippines	1.8
Israel, Malaysia, Venezuela	1.7
Cambodia, Haiti, Panama, Tajikistan	1.6
Algeria, Colombia	1.5

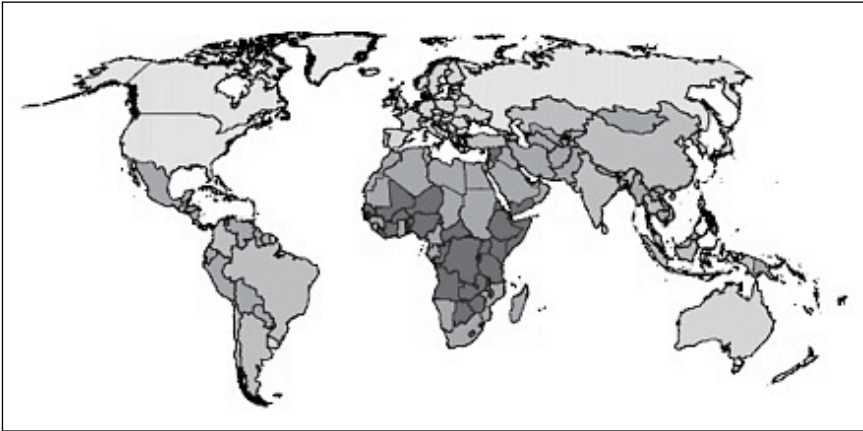
*Countries with 50 percent or more Muslim population in **Bold**.

Source: United Nations, 2008.

between a country's position along the demographic transition and the outbreak of civil war (as shown in Figure 4): The further along a country's population is in the demographic transition, the lower the probability of civil war.

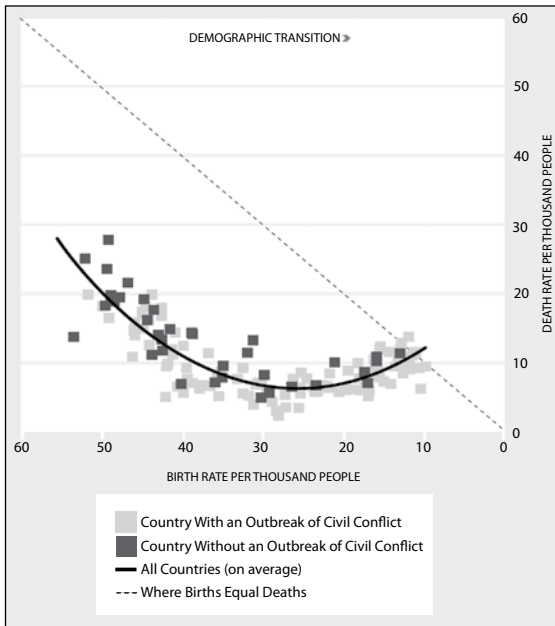
Populations in the West Bank/Gaza, Iraq, and Saudi Arabia will continue to grow and remain comparatively youthful; therefore, we can expect continued political instability and outmigration among those countries.

FIGURE 3
Geographic Distribution of the Youth Bulge, 2005



Source: Cincotta et al, 2003: 42.

FIGURE 4
Demographic Transition and Outbreak of Civil War



Source: Cincotta et al., 2003: 28.

Implications for Canadian Security

Global population aging is likely to make the twenty-first century particularly precarious for Canada's international interests. Although demographic determinants of domestic instability are on the rise, the demographic determinants of international war are on the wane and demographic projection make it possible to pinpoint likely hotspots. The bulk of conflict and political instability will be scattered across the Middle East, Asia, and some Pacific islands, but is likely to be concentrated in sub-Saharan Africa. Since conflict is the single greatest "push factor" of migration, immigration pressures from sub-Saharan Africa to Europe (but also to places such as South Africa) are expected to continue unabated and may accelerate as climate change makes life even less viable in that part of the world.

Migration and age structure have several connections, one of which is that the most mobile populations also tend to be youthful. That is, migrants are overwhelmingly between 15 and 35 years old. There are a number of reasons for this, but perhaps most importantly, these age groups stand to reap the greatest long-term payoff from migrating and they have the least to lose from being uprooted.

One way to account for migration is thus as a function of push-pull factors. Between 2008 and 2010, Gallup conducted a rolling survey of 401,490 people across 146 countries (Esipova and Ray, 2011). It found that 14 percent of the world's population – some 630 million people – would like to migrate to another country if they could. People across sub-Saharan Africa (33 percent), North Africa (23 percent) and the Middle East, and Latin America (23 percent), had the greatest urge to move permanently. The United States as the destination of choice (23 percent) is followed by Canada and the United Kingdom (7 percent each). In Canada's case, that would amount to some 145 million migrants – in a "super-diverse" (Vertovec, 2007) country that already has one of the highest per capita migration rates in the world with about 20 percent of its population having been born abroad (a proportion comparable only to Australia and Switzerland). In practice, only 3 percent of the world's population lives outside its country of birth; most of those migrants reside in countries bordering or in immediate proximity to their country of birth. This sizeable discrepancy between desire to migrate and actual residence is indicative of a large pool of potential unauthorized migrants making for stiff competition among migrants, a pool that is unlikely to shallow anytime soon. First, some of greatest population growth is taking place in precisely those countries with the least capacity to cope. Second, the stresses of climate change and political instability are likely to prove

unrelenting push factors. Third, the demand for foreign labour contrasts with an absence of means to facilitate legal migration.

The supply side of the migration equation contrasts starkly with the demand side. Borders are not open, public opinion in most countries seems disinclined towards migration, and the UN projects only about 1.1 million immigrants annually over the coming decades (compared with population growth in the order of 60 million annually). Demographic change is thus bound to exacerbate the divide between north and south over the coming decades. There is plenty of discussion on a more effective migratory regime in institutions such as the Global Commission on International Migration, Global Forum on Migration and Development, and the Global Migration Group. Yet, outside of the World Trade Organization's (WTO) weak rules on labour mobility remain, and highly specific and fairly weak UN Convention and Protocols regarding the Status of Refugees, there is little international agreement or law. With no one in charge and no one stepping up to take charge, migration will pose a major challenge to Canada over the coming decades. So will the second-order effects of migration. More than half of Canada's immigrants originate in countries whose norms are not democratic and where violence is engrained in the local political culture. Not only does this antecedent pose a mounting challenge for Canada's ability to socialize immigrants and thus the resilience of Canada's social fabric; but it also exposes Canada to transnationalist (Vertovec, 2009) exploitation by nefarious elements within diasporic communities looking to fuel domestic conflict abroad.

Notes

1. The effects of China's one-child policy on median age notwithstanding, in 2008 the Chinese government significantly increased the fines for wealthy couples who violate the law and have more than one child.
2. Technically most are not bulges; only a large proportion of the population happens to be youthful.

References and Further Reading

Cincotta, Richard, Robert Engleman and Daniele Anastasion. 2003. *The Security Demographic – Population and Civil Conflict After the Cold War*. Washington, DC: Population Action International. Available at: http://www.populationaction.org/Publications/Report/The_Security_Demographic/The_Security_Demographic_Population_and_Civil_Conflict_After_the_Cold_War.pdf

- Esipova, Neli and Julie Ray. 2011. "International Migration Desires Show Signs of Cooling." 11 June. Available at: <http://www.gallup.com/poll/148142/International-Migration-Desires-Show-Signs-Cooling.aspx>
- Goldstone, Jack A. 2010. "The New Population Bomb: The Four Population Trends that Will Change the World," *Foreign Affairs* January/February 2010 89(1): 31-43.
- Goldstone, Jack A., Monica Duffy Toft and Eric Kaufmann. 2011. *Political Demography: How Population Changes are Reshaping International Security and National Politics*. Boulder, CO: Paradigm Press.
- Jackson, Richard, and Neil Howe. 2008. *The Graying of the Great Powers: Demography and Geopolitics in the 21st Century*. Washington, DC: Centre for Strategic and International Studies. Available at: <http://csis.org/publication/graying-great-powers-0>
- Leahy, Elizabeth et al. 2007. *The Shape of Things to Come – Why Age Structure Matters To A Safer, More Equitable World*. Washington, DC: Population Action International. Available at: http://www.populationaction.org/Publications/Report/The_Shape_of_Things_to_Come/SOTC.pdf
- Leuprecht, Christian. 2010. "International Security Strategy and Global Population Aging," *Journal of Strategic Security* 3(4): 27-48. Available at: <http://scholarcommons.usf.edu/jss/vol3/iss4/7/>
- Leuprecht, Christian. 2011. "At the Demographic Crossroads: International Security Strategy for the 21st Century," in Christian Leuprecht, Jodok Troy and David Last, eds., *Mission Critical: Smaller Democracies' Role in Global Stability Operations*. Kingston and Montreal: McGill-Queen's University Press, pp. 13–48.
- Massey, Douglas and J. Edward Taylor. 2004. *International Migration: Prospects and Policies in a Global Market*. Oxford: Oxford University Press.
- National Intelligence Council, 2008. *Global Trend 2025: A Transformed World*. Washington, DC. Available at: http://www.dni.gov/nic/PDF_2025/2025_Global_Trends_Final_Report.pdf
- Vertovec, Steven. 2007. "Super-diversity and Its Implications," *Ethnic and Racial Studies* 29(6): 1024-54.
- Vertovec, Steven. 2009. *Transnationalism*. London and New York: Routledge.