

# 5

# POPULATION GEOGRAPHY

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## CHAPTER SUMMARY

- The two main factors that affect population growth are fertility and mortality.
- Fertility varies spatially across the globe because fertility is affected by biological factors, economic factors, and cultural factors.
- Mortality varies spatially and is a general indicator of socio-economic status.
- The rate of natural increase (RNI) is the difference between CBR and CDR.
- Population projections are not always accurate.
- Migration is the movement of people from one location to another and has occurred for as long as there have been humans.
- Movements of refugees and internally displaced persons (IDPs) are explained by forced and mass migration associated with war, political instability, and other push factors.

## LEARNING OBJECTIVES

After reading this chapter, you should be able to

- identify measures and concepts that explain demographics and population growth or decline;
- identify the factors that affect rates of fertility and mortality;
- understand how population, fertility, and death rates vary spatially;
- understand how the composition of a population changes over time;
- identify the various explanations and models for population growth or decline; and
- identify the various explanations for the relationship between population and resources.

## KEY TERMS

**Carrying capacity** The maximum population that can be supported by a given set of resources and a given level of technology. (p. 145)

**Census** The periodic collection and compilation of demographic and other data relating to all individuals in a given country at a particular time. (p. 159)

**Demographic transition** The historical shift of birth and death rates from high to low levels in a population. Mortality declines before fertility resulting in substantial population increase during the transition phase. (p. 157)

**Demography** The study of human populations. (p. 134)

**Density** A measure of the number of geographic facts (for example, people) per unit area. (p. 159)

**Developmentalism** Analysis of cultural and economic change that treats each country or region of the world separately in an evolutionary manner; assumes that all areas are autonomous and proceed through the same series of stages. (p. 164)

**Doubling time** The number of years required for the population of an area to double its present size, given the current rate of population growth. (p. 143)

**Fecundity** A biological term; the ability of a woman or man to produce a live child; refers to potential rather than actual number of live births. (p. 134)

**Fertility** Generally, all aspects of human reproduction that lead to live births; also used specifically to refer to the actual number of live births produced by a woman. (p. 134)

**Life cycle** The process of change experienced by individuals over their lifespans; often divided into stages (such as childhood, adolescence, adulthood, old age), each of which is associated with particular forms of behaviour. (p. 166)

**Limits to growth** The argument that both world population and world economy may collapse because available world resources are inadequate. (p. 153)

**Mortality** Deaths as a component of population change. (p. 139)

**Nuptiality** The extent to which a population marries. (p. 136)

**Pandemic** A term used to designate diseases with very wide distribution (a whole country, or even the world); “epidemic” diseases have more limited distribution. (p. 199)

**Physiological density** Population per unit of cultivable land. (p. 159)

**Place utility** A measure of the satisfaction an individual derives from a location relative to his or her goals. (p. 165)

**Population aging** A process in which the proportion of elderly people in a population increases and the proportion of younger people decreases, resulting in increased median age of the population. (p. 148)

**Population momentum** The tendency for population growth to continue beyond the time that replacement-level fertility has been reached because of the relatively high number of people in the child-bearing years. (p. 142)

**Population pyramid** A diagrammatic representation of the age and sex composition of a population. By convention, the younger ages are at the bottom, males are on the left, and females on the right. (p. 146)

**Replacement-level fertility** The level of fertility at which a couple has only enough children to replace themselves. (p. 135)

**Sex ratio** The number of males per 100 females in a population. (p. 148)

**Spatial preferences** Individual (sometimes group) evaluation of the relative attractiveness of different locations. (p. 165)

## RESEARCH QUESTIONS

1. Whether or not population will encounter limits to resources has been debated since Malthus perceived this issue. Is there merit to this argument today? Give some examples of resource problems that enhance or dispel Malthus' argument, making use of current facts and the arguments of other thinkers who contributed to this debate.
2. What is the current thinking on fertility policies? Does government intervention work as expected? Support your discussion with empirical examples.
3. What are some of the issues that arise when a population is aging? What measures are governments taking when they encounter this issue and are they successful?
4. What have been some of the responses from governments and other political or religious bodies in addressing the AIDS pandemic? Where have there been successes, and where could there be improvements in responses and why?
5. Describe what is learned about women and gender issues from regions and states which are experiencing declining fertility rates. How has this affected academic study and thinking on government policy?

## LINKS OF INTEREST

- Global Affairs Canada  
<http://www.international.gc.ca/development-developpement/index.aspx?lang=eng>
- Bill and Melinda Gates Foundation  
<http://www.gatesfoundation.org/>

- United Nations Development Programme  
<http://www.undp.org/>
- The World Bank  
<http://web.worldbank.org>
- The CIA World Factbook  
<https://www.cia.gov/library/publications/the-world-factbook/rankorder/2127rank.html>
- The Stephen Lewis Foundation  
<http://www.stephenlewisfoundation.org/>
- United Nations Programme on Ageing  
<http://www.un.org/esa/socdev/ageing/index.html>

## SUGGESTED READINGS

Connelly, M. 2008. *Fatal Misconception: The Struggle to Control World Population*. Cambridge, Mass.: Harvard University Press.

A challenging, insightful book that critiques recent population policies in many countries, painting an unflattering portrait of population planners who think they know how many children people ought to have. The book argues that population policies are not needed.

Magnus, G. 2008. *The Age of Aging: How Demographics Are Changing the Global Economy and Our World*. New York: Wiley.

A good, easy-to-read account of the greying of the world population.

Newbold, K. N. 2010. *Population Geography: Tools and Issues*. Lanham, Md: Rowman & Littlefield.

Clearly written and well-illustrated text that explains the techniques used by population geographers and evaluates current population problems.

## YOUTUBE VIDEOS

- TED. 2010. “Hans Rosling: Global Population Growth, box by box.” YouTube video, 10:15. Posted July 2010 <https://www.youtube.com/watch?v=fTznEIZRkLg>
1. The video discussing the gap between “The West and the Rest”. Explain.
    - The video begins by discussing the historical differences in “wants” between the west and the developing world. The speaker presents that families in the west strive for material things (e.g. Volvo) while those in the developing world hope for food and basic clothing (e.g. Shoes). The video spends considerable time discussing the differences between wants and needs and how this has become more obvious through time.

2. How has child survival and children per woman changed over time?
  - In the video, there is an image that shows the child survival and children per woman in 1960 correlated to countries in the world by colour. The largest populations in 1960 (China and India) have relatively low survival rates (70 to 80 per cent) and a high number of children per woman (between 5 and 7). By 2008, India, China, Bangladesh and many other countries have “caught” up to the west (i.e., higher child survival rates and lower children per woman). However there is still the poorest billion who continue to have high rates of children per woman yet the child survival rate has improved.
- The Agenda with Steve Paikin. 2015. “Canada’s Changing Demographics.” YouTube video, 13:46. Posted June 2015 <https://www.youtube.com/watch?v=CK3VTI-xhgI>
  1. What is the significance of the StatsCan age pyramid that is shown in the video?
    - The significance is that it illustrates the levels of mortality and fertility. It shows that the baby boom has aged (50–70) and that accounts for the large group. The top part becomes larger relative to the bottom part. This indicates that we (Canada) have a larger population of older persons than younger. This will influence our health care costs, jobs, and several other aspects of Canadian culture.
  2. What are the consequences of a lower fertility rate in the future for Canada?
    - Fertility rate has been fairly constant in Canada for the last three decades. The projection is that this will remain the same. However, depending on the number of women, there are a different number of births. So with an older population, you’ll have fewer births.