

# Canadian pyramid essay

[Science](#), [Epidemiology](#)



As shown on Attachment 1, the age-sex composition of Canada's population based on Year 2001 census tabulated data is depicted in Year 2001 Census Canada Pyramid. Though constructed differently from the conventional male-on-the-left female-on-the-right orientation, this pyramid illustrates the following: the number of male and female in Canada for the Year 2001 is nearly equal with female at 50.98% and male at 49.01%, or in more detailed manner, female outnumbering male by merely 0.19% of total population of 30,007,109. Males outnumber females up through the 20-24 age groups, after which females outnumber males.

Except for age group 0-4 which is narrower, all younger age groups up to ages 30-34 group exhibits almost uniform cohorts' width. The largest age group or cohort for both male and female is ages 40-44, followed closely by ages 35-39, and then ages 45-49. Each successively older age group beginning with ages 55-59 is progressively smaller. The 2001 Canada Pyramid is not that common compared to the traditional population pyramids of Canada in the 1800s. As shown on Attachment #2, the 1881 and 1891 pyramids commonly exhibit broad bases and slowly narrowing, whereas the population pyramid of 2001 is comparatively bulging until the 1960s, or 40-44 age groups, and has steadily slimmed since. On the other hand, totally different from the other two previously mentioned 1800s pyramids, the 1871 population pyramid in which the upper age grouping, starting from 20-29 age groups has a wider range of 10 years instead of the standard 5 years bracketing, is somewhat similar in configuration to the 2001 pyramid: bulging until the 1840s or 20-29 age group, then also steadily slimmed since.

Comparing 2001 pyramid of Canada with that of 1961 and projected 2021 as shown in Attachment#3, 2001 configuration is almost similar to projected 2021 but different from the 1961 census especially for younger age in which the 1961 pyramid exhibits broader base at age groups 0-4 than gradually narrowing until age groups 15-19. Whereas both 2002 and projected 2021 pyramids have narrower base at younger age groupings then abruptly widened at middle age groups until steadily narrowing towards the old age groupings. On age distribution, year 1961 has greater percentage of younger generations up to 15 years, as depicted by wider cohort, than other age groups or cohorts of the same year. This broad base of 1961 pyramid is the bulge that later formed in the 2001 pyramid age groups 35-46 and remains a bulge in the projected 2021 which will then belong to age groups 60-69. This bulge is the effect of baby booms in the 1960's, or a phenomenon of “ uncharacteristically large age cohorts within a population created when large proportions of the women in a population have children in the same year, typically due some critical event, like the end of the war.

” (“ GLOBAL POPULATION COMPOSITION”, 2002, p. 36) Granting today's trend will continue constantly and barring major catastrophe or any extraordinary happenings, younger age groups 0-20 will continue to decline gradually as shown in 2021 projected pyramid. This projection is further substantiated by US Census Bureau's projected midyear population of Canada, by age and sex, with its corresponding population pyramid as shown in Attachment #4.

When two generated pyramids projections are compared side by side, both yield similar configurations and shape; likewise nearly equal 37 million total population by year 2021. As generating a cohort-component population projection is a multi-step process whose complexity lies not in the calculations but on carefully determining assumptions about the future such as levels of mortality, fertility and migration according to Canada's particular circumstances, projections are further evaluated for any differences within region to make sure that differences exist for valid reasons and that it could be explained by known peculiarities of Canada. Thus accuracy of projections is beyond doubt. There are social and economic implications brought about by the changing population demographics. In the case of Canada, where the 2001 pyramid displays a 19.

08% and 5. 82% population percentage for ages 1-15 and ages 75 above respectively, is considered an aging population – a common occurrence in developed countries with adequate health services. The economic implication of these demographics is how the government must plan the economy in order that its working population can support the dependents or those over 65.

Informed decisions made out of it by any stakeholders will affect Canadian lives today and in the future. With regards to the number of females and males: year 1961 has 50. 55% males and 49. 45% females; inversely, year 2001 has 49. 01% males and 50. 98% females; and similarly by the year 2021, there will be 49. 34% males and 50. 76% females based on projections made by US Census Bureau on table#2 of Attachment#4.

There are significant implications of these men to women ratios. As defined, sex ratio is the ratio of males to females in a population at time of birth. In humans, it is commonly assumed to be 105 boys to 100 girls which by convention is referred to as a ratio of 105. However due to the generally higher life expectancy of females, sex ratio tends to even out in adult population and result in an excess of females among the elderly. (Coney, 1998) Canada has the following sex ratio: 1.05 at birth, 1.05 for age under 15; 1.01 for ages 15-65, 0.

75 for ages over 65 or a total 0.98. (Davis, 1998) There are 4 factors identified affecting sex ratio in humans: first is genetic; second is environmental such as social status of mother status (Garenne, 2002), whether the mother smokes (Geodakyan, 1985), maternal malnutrition (Geodakian, 1998), Hepatitis B virus believed to increase sex ratio while health hazards have negative effects (Smith, 2005); third is social factor such as data sources and data quality issues, sex selective abortion and infanticide (Smith, 2005); and fourth is gender imbalance or a demographic effect that may arise either as a result of warfare, for instance excess of females after WWI in Europe, and sex selective abortion and infanticide, for example excess of male after China's one-child policy. Extreme gender imbalance is a serious treat as it may cause social unrest, for instance when there is an excess of young male unable to find a spouse. By year 2021, the projected sex ratio of Canada is 97. References: Coney, N.

M. W. (1998). The woman as final arbiter: a case for the Facultative Character of the Human Sex Ratio. *Journal of Sex Research*, 35(May), 169-175. Davis, D. G., M & Stampnitzky, J.

. (1998). Reduced Ratio of Male to Female Births in Several Industrial Countries: A Sentinel Health Indicator? *Journal of the American Medical Association*,, 279, 1018-1023. Garenne, M. (2002).

Sex ratios at birth in African populations: A review of survey data. *Human Biology* 74, 889-900. Geodakian, K. a. G., V. .

(1998, July 26-Aug 1). Sex Ratio (M/F) Adjusts Genotypical Evolutionary Plasticity (EP) Of a Population, Sinistrality/Dextrality (S/D)—Its Behavioral EP. Paper presented at the The 14th International Congress of Anthropological and Ethnological Sciences. Geodakyan, V. G.

v., S. . (1985). Is there a negative feedback in sex determination? *Zurnal obschej biol.*, 46(2), 201-206. GLOBAL POPULATION COMPOSITION. (2002, p. 36). Retrieved March 19, 2007, 2007, from <http://www.census.gov/ipc/www/idbpyr.html>Smith, D. a. V. B.

, J. . (2005). Trends in the sex ratio of California births, 1960–1996. *Journal of Epidemiology and Community Health*, 59, 1047-1053.