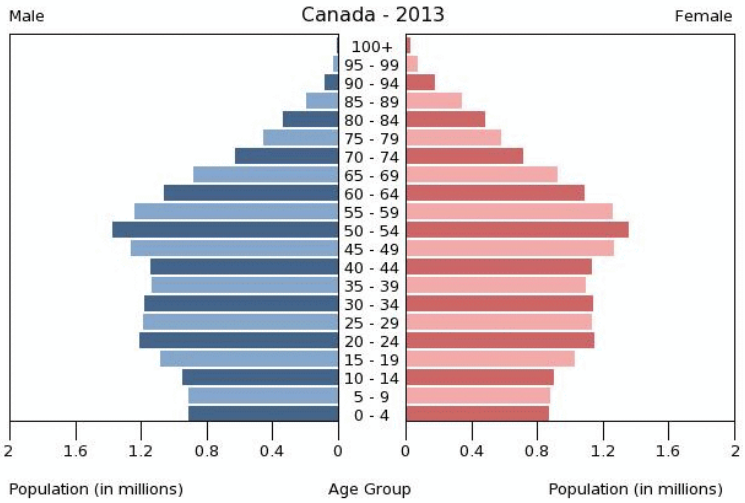
Forecasting Population Size

- Age structure
- Distribution of various age groups
- Population pyramids can be made to show trends
- High growth rates have young populations
- Survivorship
- Determine how much of a population survives to a given age
- Fertility Rates
- Number of babies born each year per 1000 women
- Migration
- Movement of individuals in and out of a population
- Immigration (into a country)
- Emigration (out of a country)

Population Pyramid

A population pyramid illustrates the age and sex structure of a country's population and may provide insights about political and social stability, as well as economic development. The population is distributed along the horizontal axis, with males shown on the left and females on the right. The male and female populations are broken down into 5-year age groups represented as horizontal bars along the vertical axis, with the youngest age groups at the bottom and the oldest at the top. The shape of the population pyramid gradually evolves over time based on fertility, mortality, and international migration trends.



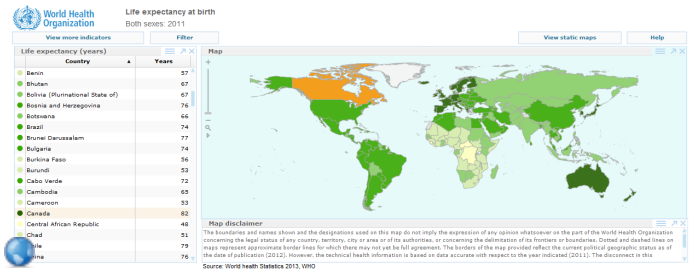
Age structure: 0-14 years: 15.5% (male 2,753,263/female 2,617,600)
15-24 years: 12.9% (male 2,285,268/female 2,160,005)
25-54 years: 41.4% (male 7,253,587/female 7,067,997)
55-64 years: 13.3% (male 2,285,072/female 2,329,760)
65 years and over: 16.8% (male 2,574,216/female 3,241,443) (2013 est.)

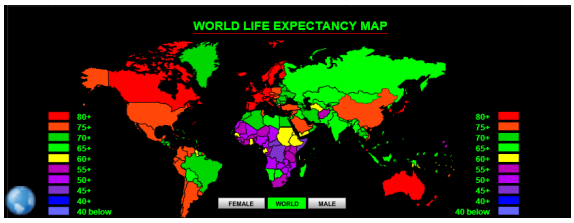
Definition: This entry provides the distribution of the population according to age. Information is included by sex and age group (*0-14 years*, *15-64 years*, *65 years and over*). The age structure of a population affects a nation's key socioeconomic issues. Countries with young populations (high percentage under age 15) need to invest more in schools, while countries with older populations (high percentage ages 65 and over) need to invest more in the health sector. The age structure can also be used to help predict potential political issues. For example, the rapid growth of a young adult population unable to find employment can lead to unrest.

Declining Death Rates

- Access to food, cleaner water, better medicine, safe sewage disposal have contributed to people living longer

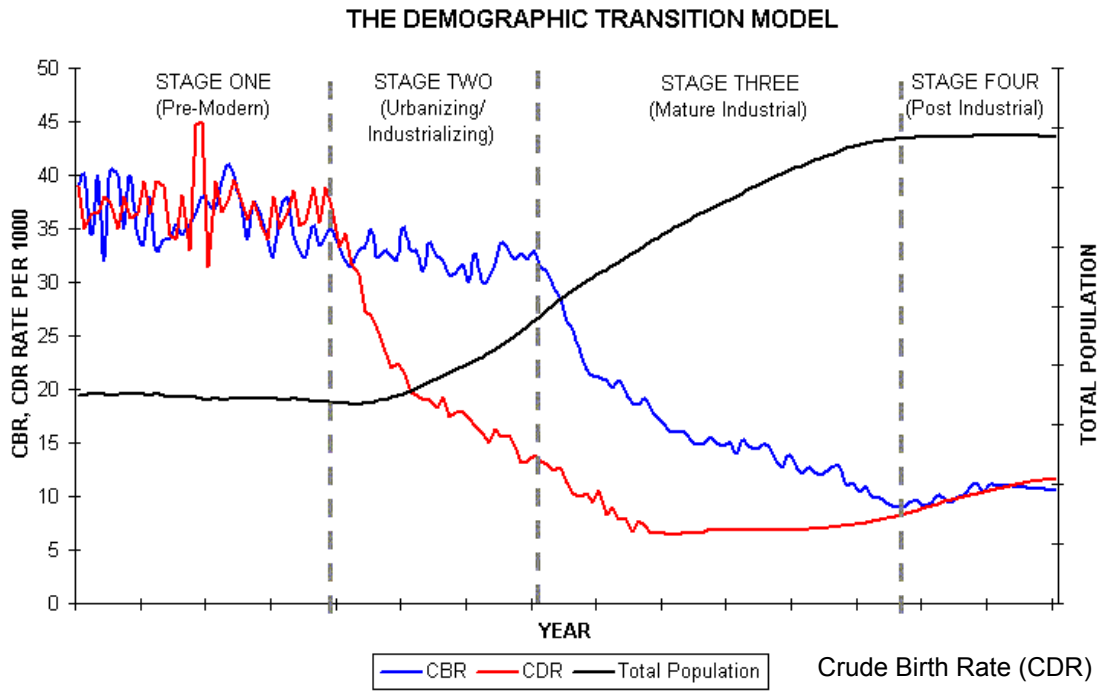
- Global life expectancy has increased to 70 years
- In developed countries, it is upwards of 80 years





The Demographic Transition

- A model that describes how changes can occur to a countries population growth rate
- Stage 1
- Preindustrial condition (birth and death rate are high); population rate is stable
- Stage 2
- Population explosion occurs
- Stage 3
- Birth rate decreases (equal to death rate), population stabilizes; population much larger than before
- Stage 4
- Birth rate drops, population declines



Crude Birth Rate (CDR)

Crude Death Rate (CDR)

Women and Fertility

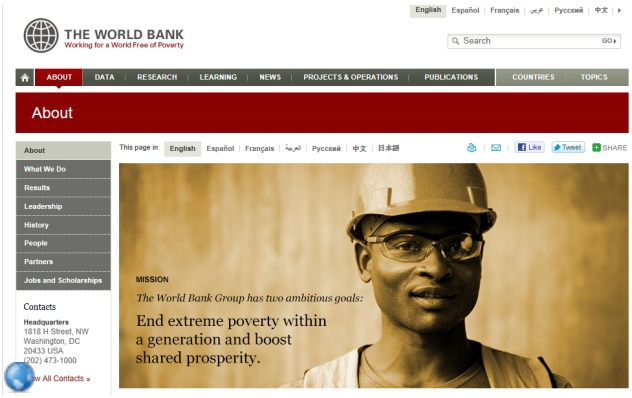
- Increased education and economic independence has contributed to birth decline

- Countries that want to reduce their birth rate typically put incentives in place to increase education of women

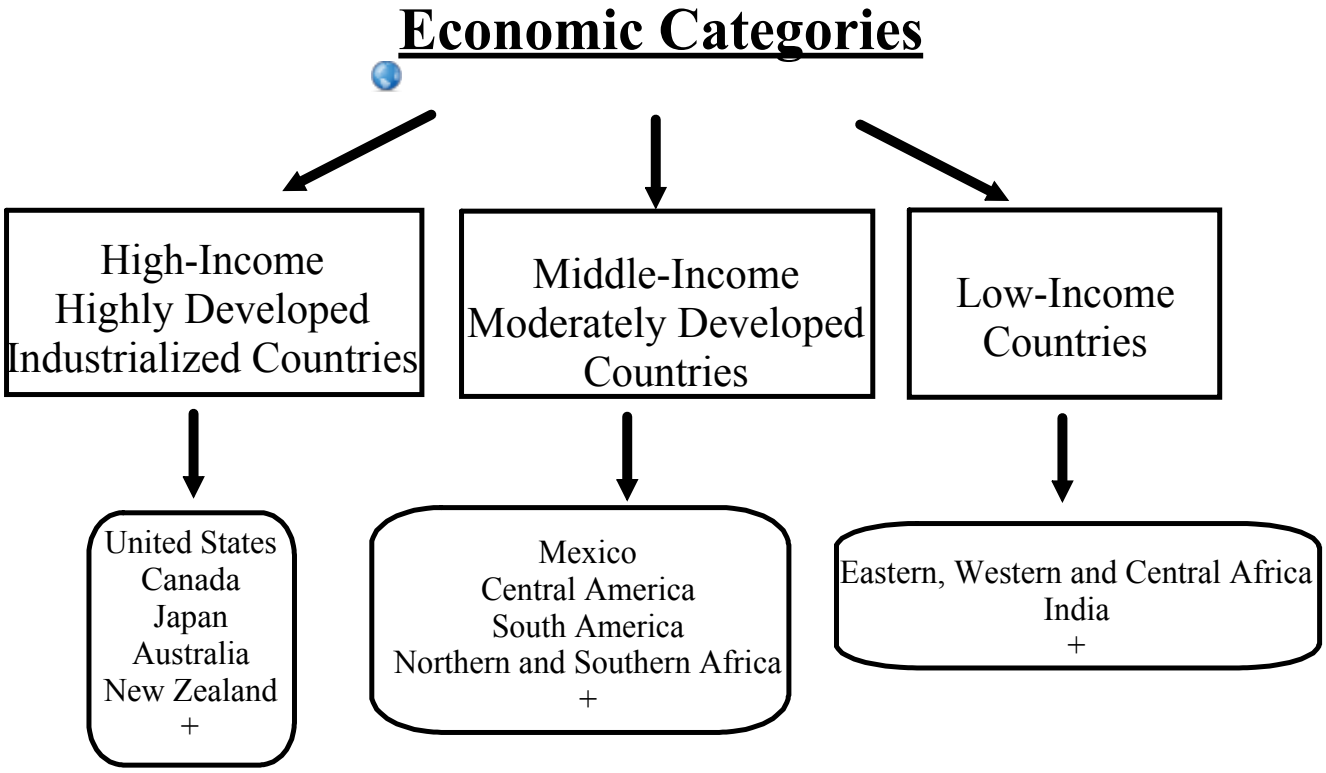
THE WORLD BANK
Working for a World Free of Poverty

- The World Bank is a vital source of financial and technical assistance to developing countries around the world.

- Its mission is to fight poverty with passion and professionalism for lasting results and to help people help themselves and their environment by providing resources, sharing knowledge, building capacity and forging partnerships in the public and private sectors.

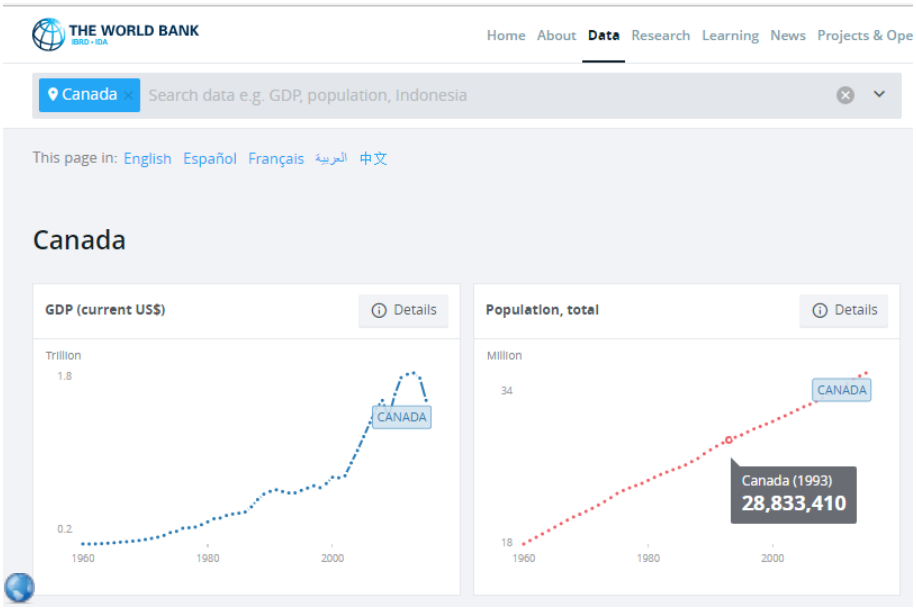


- The World Bank divides the countries of the world into three main economic categories according to **gross national income (GNI)** per capita (per person).



GNI per capita is the dollar value of a country's final income in a year , divided by its population. It reflects the **average income of a country's citizens**.

World Bank...Canada



Average Canadian Income

Average Income of a Canadian Citizen (2013)

Highly Developed Countries

20% of world's population
80% of world's wealth

Developing Countries

80% of world's population
20% of world's wealth

Environmental Impact α $\frac{\text{Population Size x Affluence of Lifestyle}}{\text{Stewardship}}$

proportional to

Poodwaddle World Clock
Stats | Time | Date | Life | ?
YR. MTH. WK. DAY NOW
World Population
7,214,370,187
Births
18,751,865
Deaths
7,852,265
Tuesday Feb 18
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Intro
Population
Mortality
Illness
Environment
Energy
Food
Economy
Crime
:) Smile It ain't all bad news
February 2014
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