

Chapter 6

Population Growth and Economic Development: Causes, Consequences, and Controversies

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Economic Development

11th Edition

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Population Growth and the Quality of Life



6.1 The Basic Issue: Population Growth and Quality of Life

- Six major issues:
 - Will developing countries be able to improve levels of living given anticipated population growth?
 - How will developing countries deal with the vast increases in their labor forces?
 - How will higher population growth rates affect poverty?

6.1 The Basic Issue: Population Growth and Quality of Life

- Six major issues (cont'd):
 - Will developing countries be able to extend the coverage and improve the quality of health care and education in the face of rapid population growth?
 - Is there a relationship between poverty and family size?
 - How does affluence in the developed world affect the ability of developing countries to provide for their people?

6.2 Population Growth: Past, Present, and Future

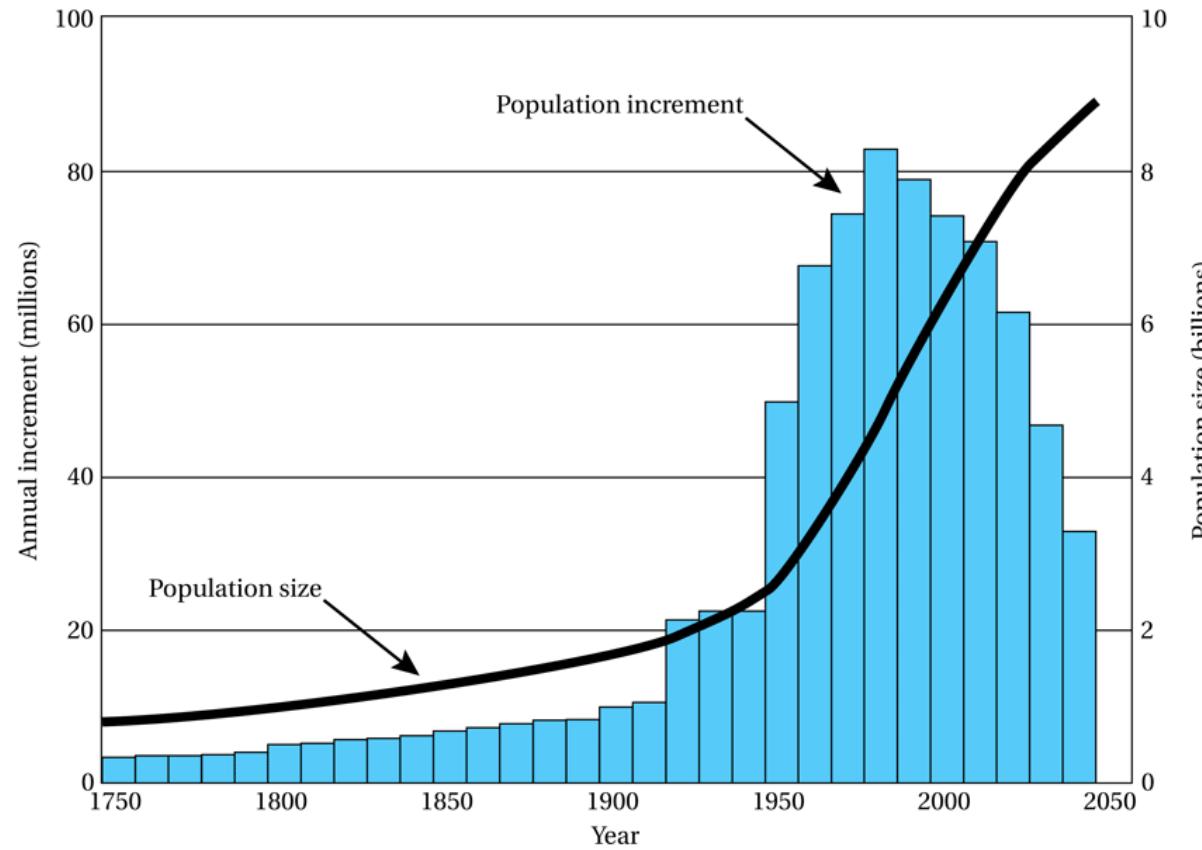
- World population growth through history

Table 6.1 Estimated World Population Growth

Year	Estimated Population (millions)	Estimated Annual Increase in the Intervening Period (%)	Doubling time (years)
10,000 B.C.E.	5		
1 C.E.	250	0.04	1,733
1650	545	0.04	1,733
1750	728	0.29	239
1800	906	0.45	154
1850	1,171	0.53	130
1900	1,608	0.65	106
1950	2,576	0.91	76
1970	3,698	2.09	33
1980	4,448	1.76	39
1990	5,292	1.73	40
2000	6,090	1.48	47
2010	6,892	1.22	57
2050 (projected)	9,200	0.675	103

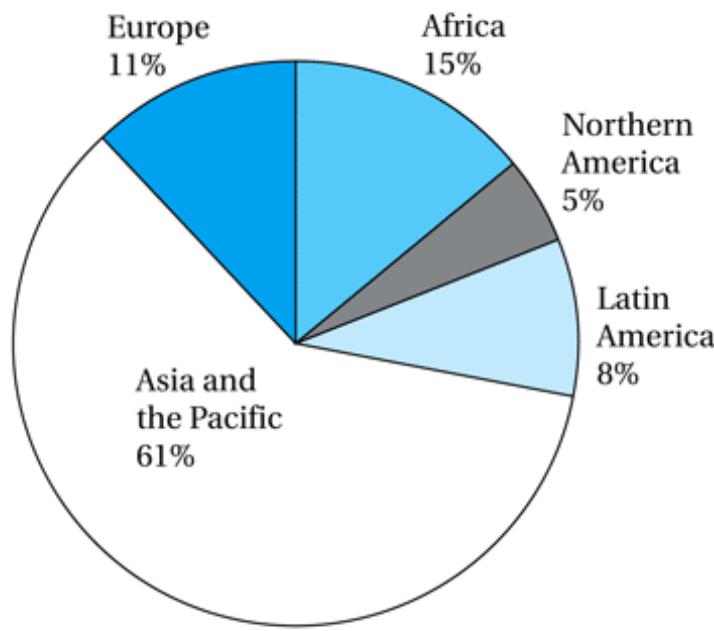
Sources: Population Reference Bureau, *World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 2010 and previous annuals). Warren S. Thompson and David T. Lewis, *Population Problems*, 5th ed. (New York: McGraw-Hill, 1965), p. 384; United Nations, *Demographic Yearbook for 1971* (New York: United Nations, 1971); United Nations, *Report on the World Social Situation, 1997* (New York: United Nations, 1997), p. 14, and authors' calculations. An alternate system of broadly comparable and earlier estimates is found in Michael Kremer, "Population Growth and Technological Change: One Million B.C. to 1990," *Quarterly Journal of Economics* 108 (1993): 681-716.

Figure 6.1 World Population Growth, 1750-2050

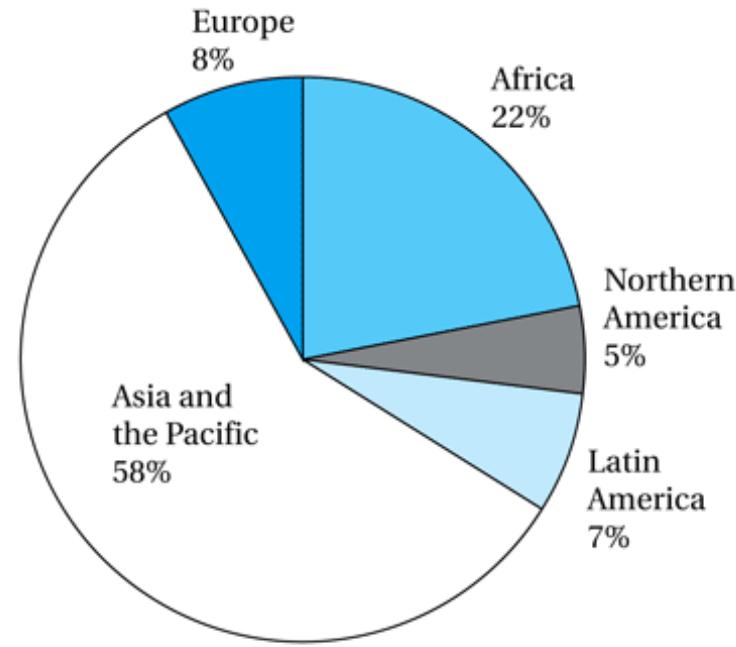


Source: United Nations Population Division, *The World at Six Billion*, p. 7. Copyright © 2000 by the United Nations. Used with permission.

Figure 6.2 World Population Distribution by Region, 2010 and 2050



(a) Total population 2010: 6.89 billion



(b) Total population 2050: 9.5 billion

Source: Data from Population Reference Bureau, *World Population Data Sheet*, 2010.

What are some advantages and disadvantages of having more people in the world?

Advantages:

1- More people means more great minds and innovations such as:



Assembly-line manufacturing



new medicines.

2- More people means increased purchases in products such as:



more spending on food



clothing



education-related expenses



higher demand for construction materials

Disadvantages

1- Unchecked population growth without equal agricultural advancement leads to food shortages.



2- Unchecked population growth can inspire overcrowding and civil unrest.



Population Growth and the Quality of Life

- In 2009, the world's population was estimated to be 6.8 billion people.
- Projections by the United Nations placed the figure at more than 9.2 billion by the year 2050.
- The overwhelming majority of that population will inhabit the developing world.
- The problem of population growth is not simply a problem of numbers. It is a problem of human welfare and of development.

Why has the population growth peaked over the last decades?

The reason for the sudden change in overall population trends is that for almost all of recorded history, the rate of population change, whether up or down, had been strongly influenced by the combined effects of **famine, disease, malnutrition, plague, and war**—conditions that resulted in high and fluctuating death rates.

In the twentieth century, such conditions came increasingly under technological and economic control. As a result, human mortality (the death rate) is now lower than at any other point in human existence. It is this decline in mortality resulting from rapid technological advances in modern medicines and sanitation measures (disinfection and cleaning detergents).

Fertility and Mortality Trends

Rate of population increase: The growth rate of a population, calculated as the natural increase after adjusting for immigration and emigration.

Natural increase: The difference between the birth rate and the death rate of a given population.

Net international migration: The excess of persons migrating into a country over those who emigrate from that country.

Birth rate: The number of children born alive each year per 1,000 population.

Death rate: The number of deaths each year per 1,000 population.



The difference between “immigrate” and “emigrate” is that **“immigrating”** is the act of entering a foreign country to live while **“emigrating”** is the act of leaving a country to live in another.

The Hidden Momentum of Population Growth

Perhaps the least understood aspect of population growth is **its tendency to continue even after birth rates have declined substantially.**

Population growth has a built-in tendency to continue, a powerful momentum that, like a speeding automobile when the brakes are applied, tends to keep going for some time before coming to a stop. In the case of population growth, this momentum can persist for decades after birth rates drop.

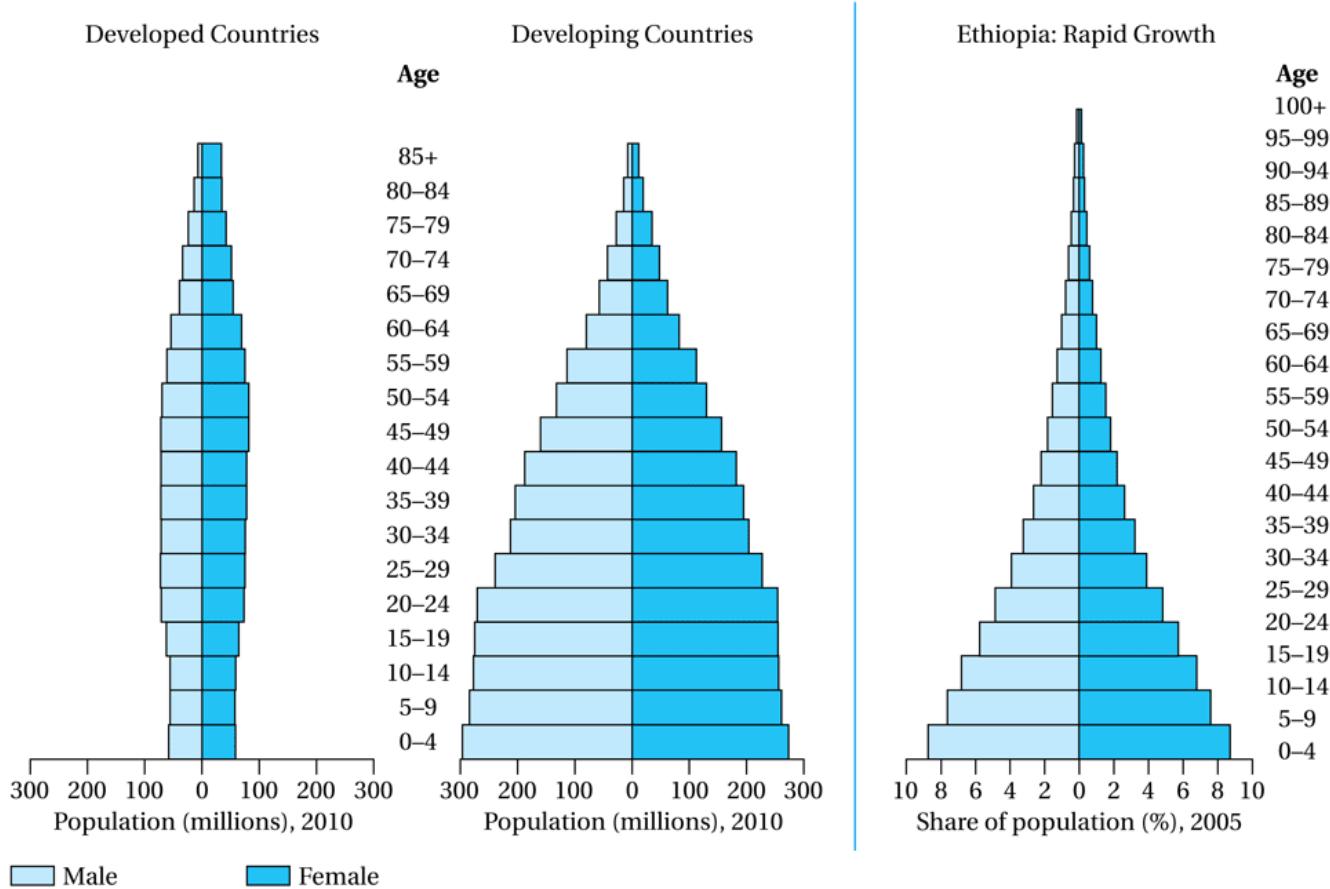
6.2 Population Growth: Past, Present, and Future

- Structure of the world's population
 - Geographic region
 - Fertility and Mortality Trends
 - Rate of population increase
 - Birth rates, death rates , Total fertility rates
 - Age Structure and dependency burdens

6.2 Population Growth: Past, Present, and Future

- The Hidden Momentum of Population Growth
 - High birth rates cannot be altered overnight
 - Age structure of developing country populations

Figure 6.4 Population Pyramids: All Developed and Developing Countries and Case of Ethiopia



Source: Graphs detailing Developed Countries from *World Population Data Sheet* of the Population Reference Bureau, Inc. by Population Reference Bureau. Copyright 2010 by Population Reference Bureau, Inc. Reproduced with permission of Population Reference Bureau, Inc. via Copyright Clearance Center. Graph detailing Ethiopia from *Population Bulletin* 62 (2007), p. 6. Reprinted with permission from Population Reference Bureau, Inc.

Young population

- The young population is defined as **those people aged less than 15**. The youth-dependency ratio relates the number of young persons that are likely to be dependent on the support of others for their daily needs to the number of those who are capable of providing such support.

Working age population

- The working age population is defined as those aged 15 to 64. The basic indicator for employment is the proportion of the working age population aged 15-64 who are employed. The age dependency ratio is the ratio of dependents (people younger than 15 or older than 64) to the working-age population.

Working age population



Elderly population

- The elderly population is defined as people aged 65 and over. The share of the dependent population is calculated as total elderly and youth population expressed as a ratio of the total population. The elderly dependency rate is defined as the ratio between the elderly population and the working age (15-64 years) population.

Elderly population



Birth rates among the very poor are likely to fall when the following socioeconomic changes happen:

1. An increase in the education of women and a consequent change in their role and status.
2. An increase in female nonagricultural wage employment opportunities, which raises the price or cost of their traditional child-rearing activities.



3. A rise in family income levels through the increased direct employment and earnings of a husband and wife or through the redistribution of income and assets from rich to poor.
4. A reduction in infant mortality through expanded public health programs and better nutritional status for both mother and child and better medical care.



5. The development of old-age and other social security systems outside the extended family network to lessen the economic dependence of parents, especially women, on their offspring.
6. Expanded schooling opportunities so that parents can better substitute child “quality” for large numbers of children.

The Consequences of High Fertility

We must recognize that population growth is not the only source of low levels of living, eroding self-esteem, and limited freedom in developing nations.

On the other hand, it would be inappropriate to think that rapid population growth is not a serious obstacle for development efforts.

Other Issues besides Population Growth

1. **Underdevelopment:** If correct strategies are pursued and lead to higher levels of living, greater self-esteem, and expanded freedom, population will take care of itself. Eventually, it will disappear as a problem, as it has in all of the present economically advanced nations. According to this argument, underdevelopment is the real problem, and development should be the only goal.
2. **World Resource Depletion and Environmental Destruction:** Population can only be an economic problem in relation to the availability and utilization of scarce natural and material resources. According to this argument, developed nations should curtail their excessively high consumption standards instead of asking less developed nations to restrict their population growth.



3- Population Distribution: According to this third argument, it is not the number of people per se that is causing population problems but their distribution in space. Governments should therefore strive not to moderate the rate of population growth but rather to bring about a more natural spatial distribution of the population in terms of available land and other productive resources.

4- Subordination of Women: Perhaps most important, as noted previously, women often bear the disproportionate burdens of poverty, poor education, and limited social mobility. In many cases, their inferior roles, low status, and restricted access to birth control are manifested in their high fertility.

What Developing Countries Can Do

- First, they can try to *persuade people* to have smaller families through the media and the educational process.
- Second, they can *enhance family-planning programs*.
- Third, governments can attempt to *force people* into having smaller families through the power of state legislation and penalties.
- Finally, no policy measures will be successful in controlling fertility unless efforts are made to *raise the social and economic status of women*.

What the Developed Countries Can Do

- Rich countries can reduce their consumption of natural resources to allow the developing countries to free resources that could then be used by poor nations to generate the social and economic development essential to slowing population growth (food, clean water, petroleum).
- Many underpopulated regions of the world and many labor-scarce societies could benefit economically from international migration, and the benefits to developing countries would be enormous.
- Improved trade relations, such as tariff- and quota-free access to developed-country markets, more appropriate technology transfers, better international pricing policies.

Question Bank

- What are advantages and disadvantages of having more people?
- My grand parents had 6 children on my mother side and 8 children on my father side. Parents have 4 children. My brother has only two kids. What does that say about the change in population trends and family size in the country?
- Write an essay in which you describe the history and birth control policies in China and India. Is there a some ways to reduce population growth without force and coercion (200 words).
- From observing the increases in numbers of people all over the world, we notice that increments have peaked over the last few decades. Why do you think that was the case?
- When countries with huge population try some policies to control birth, the reduction will not happen at ease due to the hidden momentum of population growth. Explain that concepts with examples.
- What are the main groups in the society when we discuss population issues? Define them briefly and discuss the dependency ration.
- What can the developed countries do to help other countries cope with big populations?
- What can the developing countries do to ease the issue of population growth?