

— Report your First, Last Name
with email to Dr. Song. ASAP!

Chapter 6

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

■ Key Concepts

This chapter examines how population growth in many developing countries affects their chances of becoming more economically developed, and conversely, how economic development affects population growth.

Section 6.2 and 6.3 explore historical and recent population trends and the changing geographic distribution of the world's people. Interesting statistics include world population data, distribution by region, and fertility and mortality rates. Key concepts include:

- The dependency burden.
- The hidden momentum of population growth.
- The demographic transition.

The new edition goes into more depth about the hidden momentum of population growth based on the age structures of a country's population. To illustrate the difference between the age composition of developed and developing countries, new charts are included that break down the population structure of Ethiopia versus the United States.

Section 6.4 examines the causes of high fertility in developing countries are explained using the Malthusian and Household models.

- The Malthusian Population Trap model suggests the population will be forced to live at the subsistence level of income as population growth outstrips growth in the supply of food. In the absence of measures to control population growth (e.g. birth control), starvation, wars, epidemics will provide a check on population growth. Criticisms are offered and include the failure to take technological progress into account and to account for the microeconomics of family-size decision making.
- The Microeconomic Theory of Fertility attempts to explain the falling birthrates associated with stage III of the demographic transition. It is suggested that people choose how many children to “consume” as part of their utility maximization problem. Budget constraint and indifference curve analysis is presented. Children in developing countries can be thought of as investment goods. Reasons are offered why families in developing countries have more children, such as the lower opportunity cost of time and a lack of job and education opportunities for women.

Section 6.5 addresses the debate of whether rapid population growth is a genuine problem or constraint in achieving economic development is discussed.

- Arguments why population growth is not a problem include identifying population growth as merely a symptom of widespread poverty and a lack of alternatives for women, identifying the global distribution of population as the dominant question, and identifying benefits that come with having a larger population such as a larger domestic market for consumer goods.
- Arguments why population growth is a problem include reduced family savings rates, difficulties in providing basic services to a growing population, and the need for more rapid growth in GDP to keep up with rising demands for jobs and living standards. Population growth as a cause and consequence of underdevelopment is discussed. Empirical evidence suggests seven negative consequences of population growth. When discussing reduced family savings rates it is important to keep in mind the discussion on pages 303-305 of the text where the authors clearly point to the vicious circle of poverty, limited savings and the need for children as a form of old-age support.
- The possibility of consensus is discussed insofar as population growth is not the primary cause of low levels of living, rapid population growth makes development more difficult to achieve and sustain, and many problems can be attributed to population density.

Section 6.6 describes the policy approaches that include eliminating absolute poverty, reducing income inequality, expanding education opportunities for women, providing more job opportunities, and improving access to health care and clean water. Family planning programs in some developing countries are presented

The chapter ends with a case study on China's one child law.

■ Discussion Topics

These will be some of the most animated discussions of the entire course.

- Is population growth a problem? You can add information from the book on the position of each side.
- How can you encourage people in developing countries to have fewer children?
- Should the government try to limit population growth and if so, how?

■ Sample Questions

Short Answer

1. Provide a concise statement about the relationship between population growth and absolute poverty, female wages, rural-urban migration, availability of pensions, availability of healthcare, availability of education, and rate of investment.

Answer: The question can be posed as one long essay or subdivided into separate questions.
Answers are discussed in the text.

2. Explain what is meant by “investment in children,” describing the goals and methods of the parents.

Answer: See the chapter. Parents' goals include higher farm or non-farm income in the medium run and retirement security in the longer run.

3. Explain carefully the opportunity costs of a mother's time, what may lead these to change over time, and what effects these changes have on family decisions.

Answer: An increase in earning opportunities outside the home may lead the family to substitute child quality and consumption of other goods and services for quantity of children.

4. The government of China has explicitly stated that the goal of its strict population control measures is to raise income per capita. What are the mechanisms at work in such a claimed relationship? Are there any counterarguments?

Answer: See the case study.

5. Are developing countries experiencing a demographic transition much like the one developed countries did at their earlier stages of economic development or are there important differences?

Answer: The demographic transition is broadly similar for middle-income countries although death rates have fallen more quickly. In some low income countries birth rates remain stubbornly high, while death rates have declined.

6. Is there evidence that an increase in per capita income stimulates population growth?

Answer: No. This is an assumption of the Malthus trap but one not borne out by the evidence.

7. Why might improvements in children's public health care services lower fertility?

Answer: If parents have a target number of children lowering the expected mortality rate would lower planned fertility.

8. Explain the reasons for the hidden momentum of population growth and state its implication for population levels.

Answer: Even after a decline in birthrates to replacement levels, population growth continues because of a large young population that widens the potential parent base. Implication: population will not stabilize until after a couple of generations.

9. China has adopted a unique approach to the population growth problem. Please explain. Have they been successful? Please explain.

Answer: See the case study.

10. Has population growth been a burden for China? Please answer true or false and explain.

Answer: Apply the burden of population growth debate to China's development experience.

11. What is meant by the demographic transition? What are the differences in the demographic transition between the current developed economies and developing countries?

Answer: The answer is discussed in the text in section 6.3.

12. What are some of the differences between the population policies of China and India? What factors may have contributed to their success or failure?

Answer: The case study provides some clues to the answer. This may be a nice question for students to reflect on the interplay between politics and economics. Efforts in India, a functioning democracy (despite the authoritarian tendencies of Mrs. Ghandi), has meant that population control have come up against resistance. On the other hand, China's ability, inherent in its political system, to enforce birth control policies has meant it has been more successful.

13. India is expected to surpass the population of China in the next decade or so? What differences between these two nations could have contributed to this outcome?

Answer: See answer to 12.

■ Multiple Choice

1. Projections place world population by 2050 at
- (a) between 4 and 6 billion.
 - (b) between 6 and 8 billion.
 - (c) between 8 and 10 billion.
 - (d) between 10 and 12 billion.

Answer: C

2. Children under the age of 15 represent about _____ percent of the population of developing countries.
- (a) 25
 - (b) 29
 - (c) 30
 - (d) 61
 - (e) 75

Answer: C

3. Evidence presented in the text suggests that birthrates among developing countries are lower with
- (a) higher growth.
 - (b) higher inequality.
 - (c) higher GNP per capita.
 - (d) all of the above.

Answer: A

4. The hidden momentum of population growth is caused by
- (a) the demographic transition.
 - (b) population age structure.
 - (c) the opportunity cost of a woman's time.
 - (d) children's contribution to income.

Answer: B

5. The world rate of population growth is closest to

- (a) 1%.
- (b) 2%.
- (c) 3%.
- (d) 4%.

Answer: A

6. In stage III of the demographic transition,

- (a) the birth rate and the death rate are relatively low.
- (b) the birth rate and the death rate are relatively high.
- (c) the birth rate is relatively high and the death rate is relatively low.
- (d) the birth rate is relatively low and the death rate is relatively high.

Answer: A

7. The Malthusian population trap assumes that

- (a) contraception is unavailable.
- (b) technological progress may be rapid.
- (c) fertility increases with per capita income.
- (d) all of the above.

Answer: C

8. Which of the following would most likely reduce the birthrate?

- (a) public health improvements
- (b) an increase in child mortality
- (c) a decline in the availability of secondary education
- (d) a reduction in the opportunity cost of a woman's time
- (e) all of the above.

Answer: A

9. The number of live births per 1000 people in the population per year is the

- (a) hidden momentum of population growth.
- (b) population growth rate.
- (c) demographic transition.
- (d) crude birth rate.

Answer: D

10. Which of the following will cause the largest reduction in the birthrate?

- (a) the population becomes less religious
- (b) public healthcare improves
- (c) education becomes more available
- (d) an increase in the opportunity cost of a woman's time

Answer: D

11. In recent years, the fertility rate in developing countries has been
- (a) declining.
 - (b) holding steady.
 - (c) increasing.
 - (d) showing no particular pattern.

Answer: A

12. Evidence suggests that population growth has negative effects on
- (a) economic growth.
 - (b) poverty reduction.
 - (c) environment.
 - (d) education.
 - (e) all of the above.

Answer: E

13. The proportion of the total population aged 0–15 and over 65, is known as the
- (a) dependency burden.
 - (b) unproductive population.
 - (c) surplus labor.
 - (d) population momentum.

Answer: A

14. The rate of natural increase in the population of developing countries is most correlated with
- (a) advances in developed country technology
 - (b) increases in developing country income
 - (c) an increase in the fertility rate
 - (d) all of the above.

Answer: A

15. Which of the following is a direct implication of the view that childbearing is an economic decision?
- (a) People will not have additional children unless they can earn a profit from doing so.
 - (b) Social factors have no effect on childbearing decisions.
 - (c) Compulsory education will increase fertility because educated children have the potential to earn higher salaries.
 - (d) Fertility should fall with improved opportunities for women to work in jobs outside the home.

Answer: D

16. Which of the following geographic regions is expected to experience the largest percentage increase in its population between 2003 and 2050?
- (a) Asia and Oceania.
 - (b) Latin America.
 - (c) North America.
 - (d) Africa.

Answer: D

17. At present, approximately how many years would it take for the world's population to double?
- (a) 35.
 - (b) 58.
 - (c) 96.
 - (d) 211.

Answer: B

18. The Malthusian population trap model has been criticized on the grounds that it
- (a) ignores the role of technological progress.
 - (b) assumes that population growth is primarily determined by individual choice over the number of children to have.
 - (c) both (a) and (b) are correct.
 - (d) neither (a) nor (b) is correct.

Answer: A

19. Approximately how many women were estimated to be “missing” in China?
- (a) 20-30 million
 - (b) 35-48 million
 - (c) 44-50 million
 - (d) 52-58 million

Answer: C