

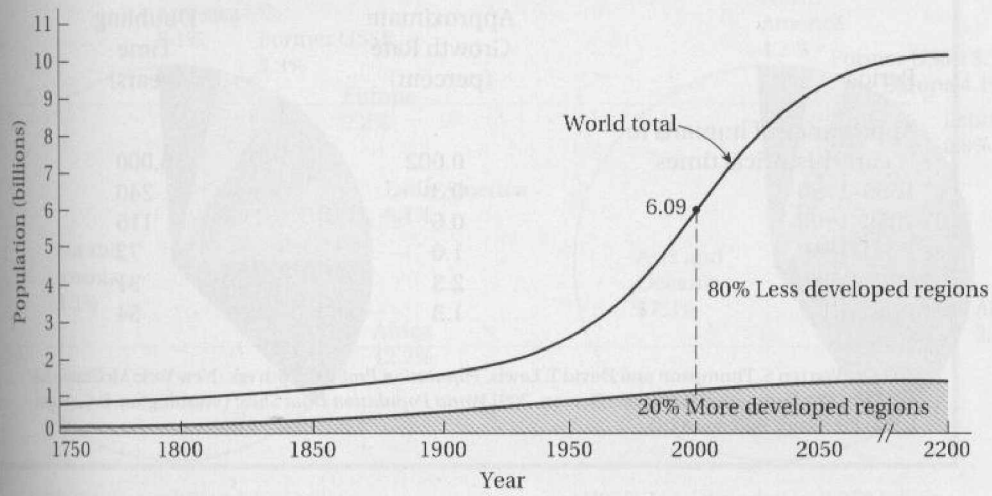
Chapter 7

TABLE 7.1 Estimated World Population Growth Through History

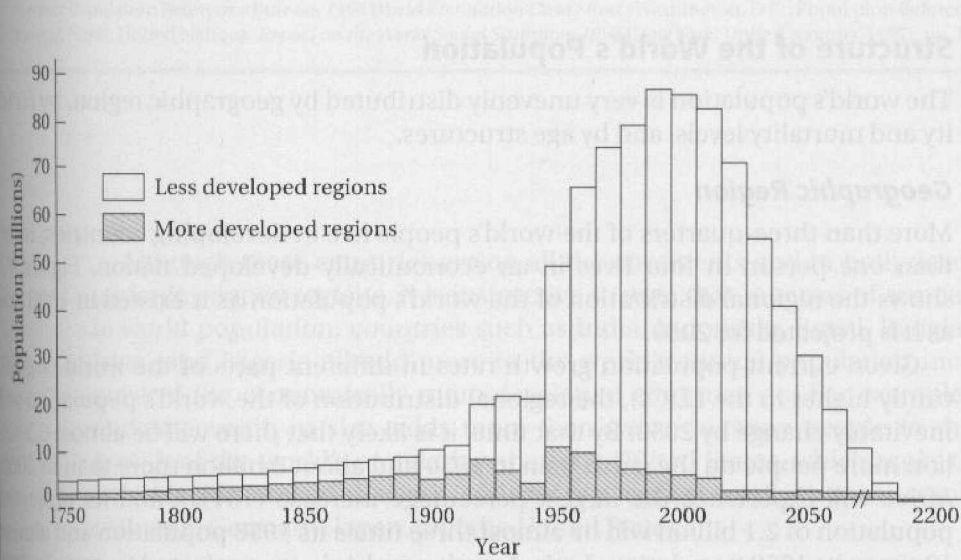
Year	Estimated Population (in millions)	Estimated Annual Percentage Increase in the Intervening Period
10,000 B.C.	5	
A.D. 1	250	0.04
1650	545	0.04
1750	728	0.29
1800	906	0.45
1850	1,171	0.53
1900	1,608	0.65
1950	2,576	0.91
1970	3,698	2.09
1980	4,448	1.76
1990	5,292	1.73
2000	6,090	1.48
2050 (projected)	9,036	0.45

Sources: 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); Population Reference Bureau, *World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 1998, 2001); United Nations, *Report on the World Social Situation, 1997* (New York: United Nations, 1997), p. 14.

Figure 7.1 Population Growth, 1750–2200: World, Less Developed Regions, and More Developed Regions



(a) Absolute size



(b) Increase by decade

Sources: Thomas W. Merrick, "World population in transition," *Population Bulletin* 41 (April 1986): 4, and United Nations, *Report on the World Social Situation, 1997* (New York: United Nations, 1997), pp. 14–15.

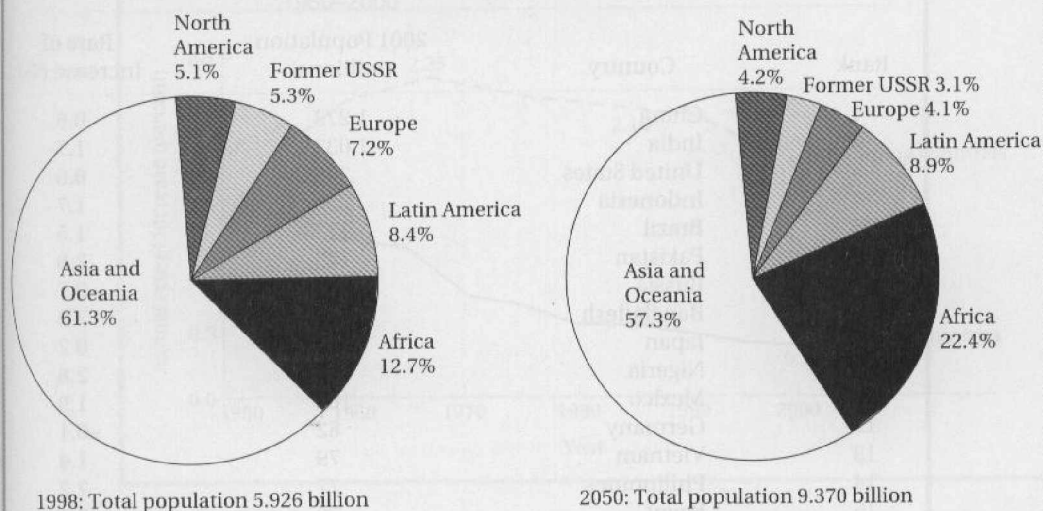
Note: The less developed regions are Africa, Asia (minus Japan), and Latin America; the more developed regions are Europe, the former USSR, Japan, Oceania (including Australia and New Zealand), and North America (Canada and the United States).

TABLE 7.2 World Population Growth Rates and Doubling Times

Period	Approximate Growth Rate (percent)	Doubling Time (years)
Appearance of humans to early historical times	0.002	36,000
1650–1750	0.3	240
1850–1900	0.6	115
1930–1950	1.0	72
1960–1980	2.3	31
Present	1.3	54

Sources: Warren S. Thompson and David T. Lewis, *Population Problems*, 5th ed. (New York: McGraw-Hill, 1965), p. 384; Population Reference Bureau, *2001 World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 2001).

Figure 7.2 World Population Distribution by Region, 1998 and 2050



Sources: Population Reference Bureau, *1998 World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 1998); United Nations, *Report on the World Social Situation, 1997* (New York: United Nations, 1997), pp. 15–16.

TABLE 7.3 The Fifteen Largest Countries and Their Annual Population Increases

Rank	Country	2001 Population (millions)	Rate of Increase (%)
1	China	1,273	0.9
2	India	1,033	1.7
3	United States	285	0.6
4	Indonesia	206	1.7
5	Brazil	172	1.5
6	Pakistan	145	2.8
7	Russia	144	-0.7
8	Bangladesh	134	2.0
9	Japan	127	0.2
10	Nigeria	127	2.8
11	Mexico	100	1.9
12	Germany	82	-0.1
13	Vietnam	79	1.4
14	Philippines	77	2.2
15	Egypt	70	2.1

Source: Population Reference Bureau, *2001 World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 2001).

Figure 7.3 Population Growth Rates in Developed and Developing Countries, 1950–2000

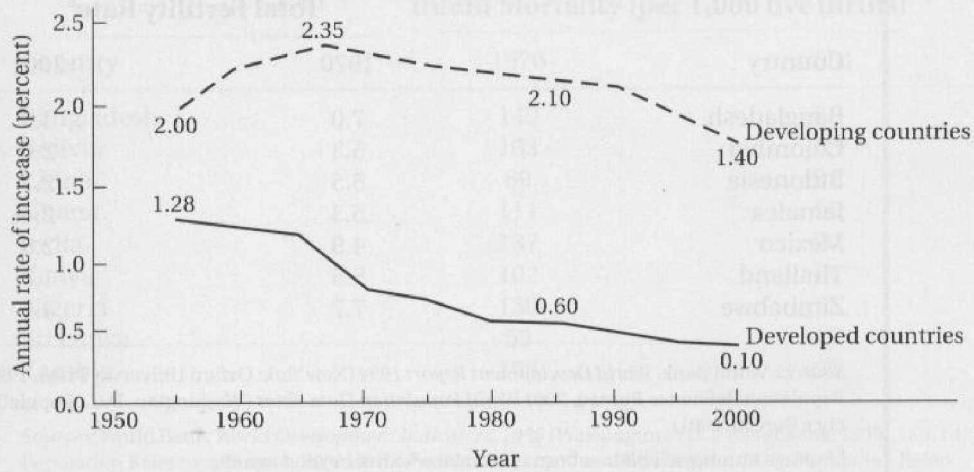


TABLE 7.4 Fertility Rate for Selected Countries, 1970 and 2001

Country	Total Fertility Rate ^a	
	1970	2001
Bangladesh	7.0	3.3
Colombia	5.3	2.6
Indonesia	5.5	2.7
Jamaica	5.3	2.4
Mexico	4.9	2.8
Thailand	5.5	1.8
Zimbabwe	7.7	4.0

Sources: World Bank, *World Development Report 1994* (New York: Oxford University Press, 1994), tab. 26; Population Reference Bureau, *2001 World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 2001).

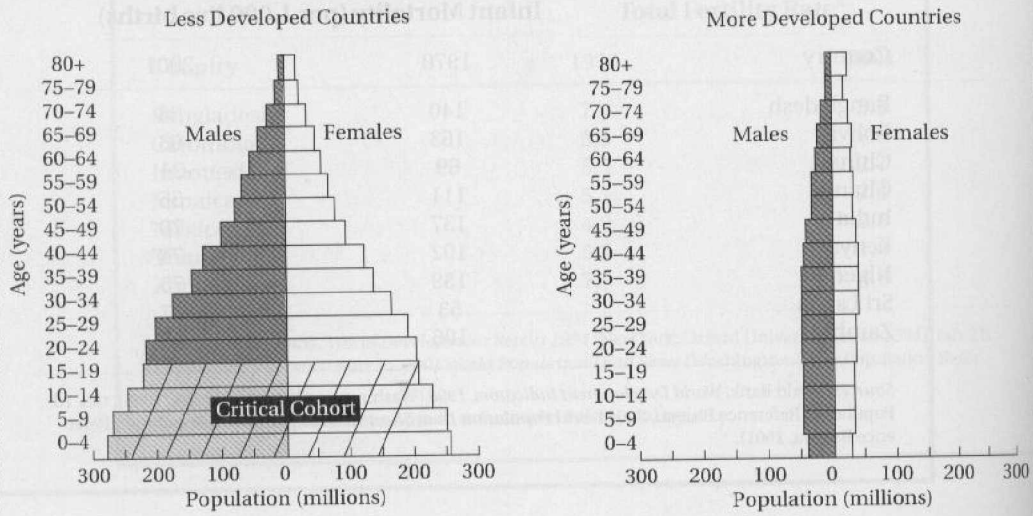
^aAverage number of children born to women who live beyond age 49.

TABLE 7.5 Infant Mortality Rates, 1970 and 2001

Country	Infant Mortality (per 1,000 live births)	
	1970	2001
Bangladesh	140	66
Bolivia	163	63
China	69	31
Ghana	111	56
India	137	70
Kenya	102	74
Nigeria	139	75
Sri Lanka	53	17
Zambia	106	95

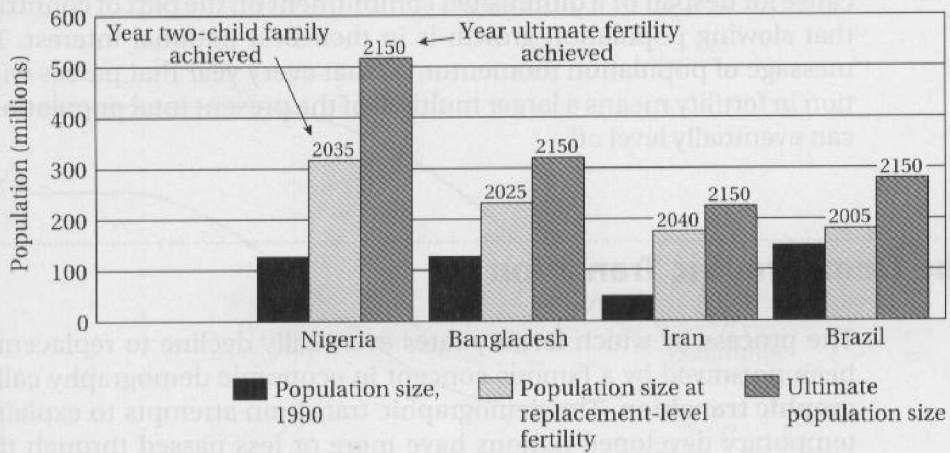
Sources: World Bank, *World Development Indicators, 1998* (Washington, D.C.: World Bank, 1998), tab. 1d; Population Reference Bureau, *2001 World Population Data Sheet* (Washington, D.C.: Population Reference Bureau, 2001).

Figure 7.4 Population by Age and Sex (Population Pyramids): Less Developed and More Developed Countries; 1998



Sources: Population Reference Bureau, 1998 World Population Data Sheet (Washington, D.C.: Population Reference Bureau, 1998); 1998). Reprinted with permission.

Figure 7.5 The Hidden Momentum of Population Growth: Some Illustrations



Sources: Population Reference Bureau, World Population: Fundamentals of Growth (Washington, D.C.: Population Reference Bureau, 1990); p. 14. Reprinted with permission.

Figure 7.6 The Demographic Transition in Western Europe

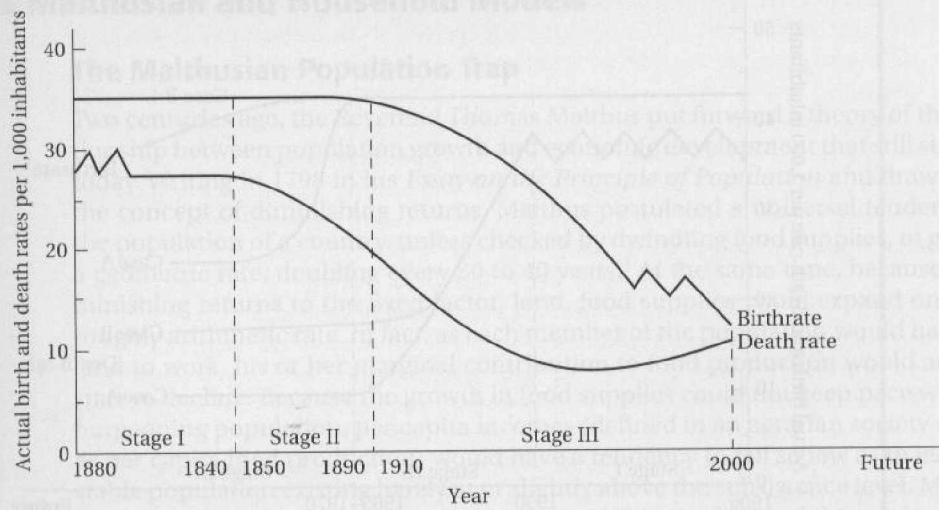
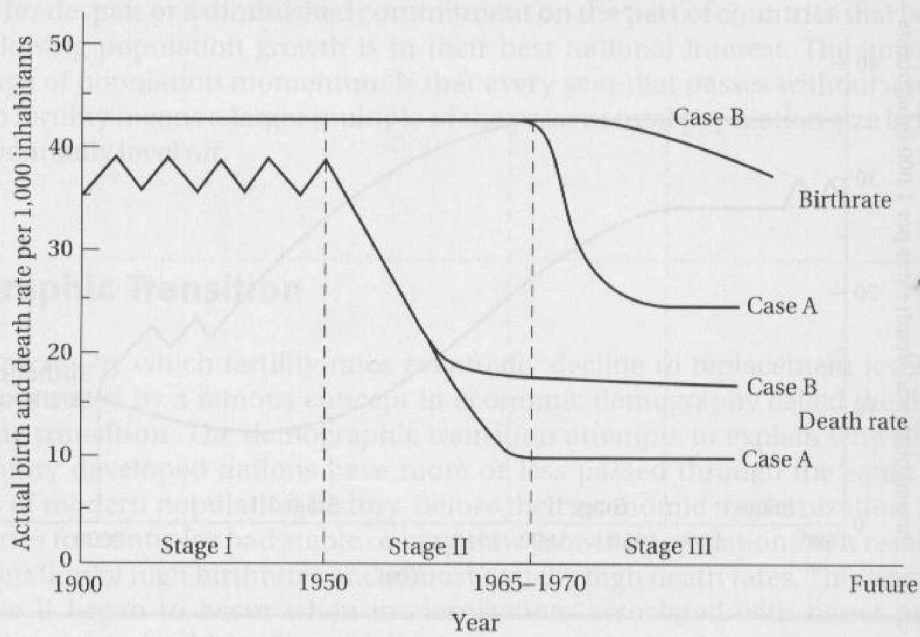


Figure 7.7 The Demographic Transition in Developing Countries



Sources: Based on National Academy of Sciences, *The Growth of World Population* (Washington, D.C.: National Academy of Sciences, 1963), p. 15.

Figure 7.8 The Malthusian Population Trap

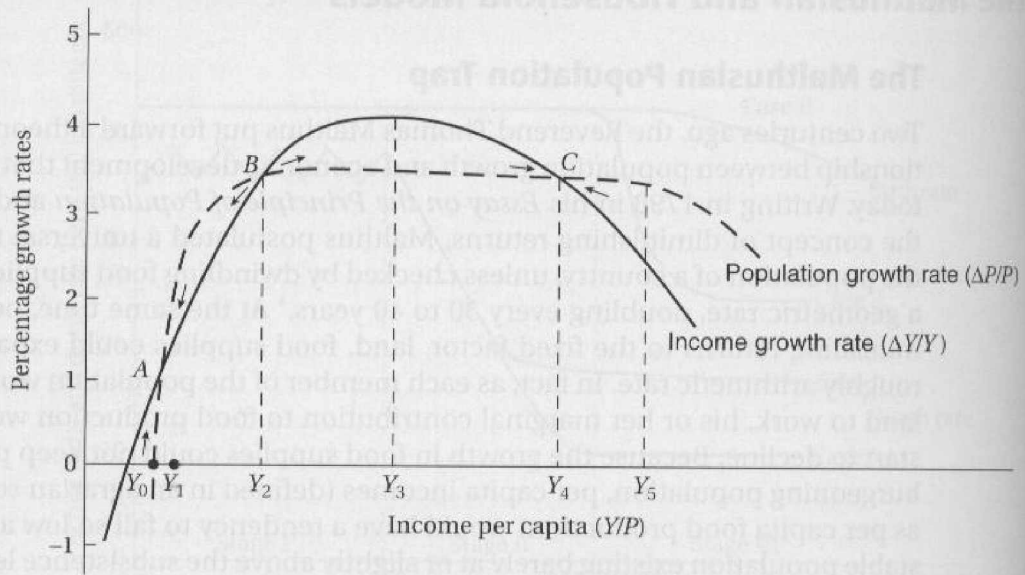


Figure 7.9 How Technological and Social Progress Allows Nations to Avoid the Population Trap

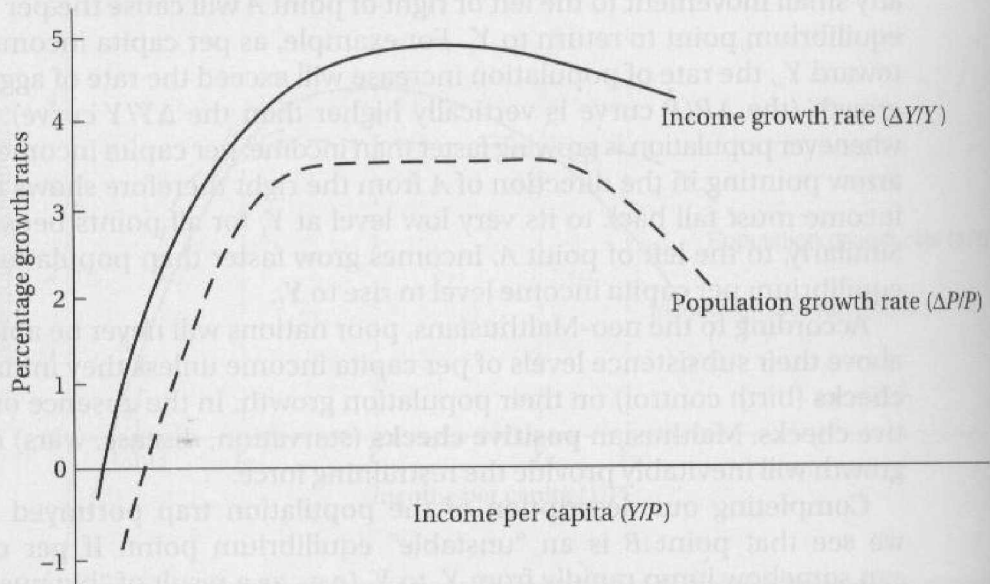
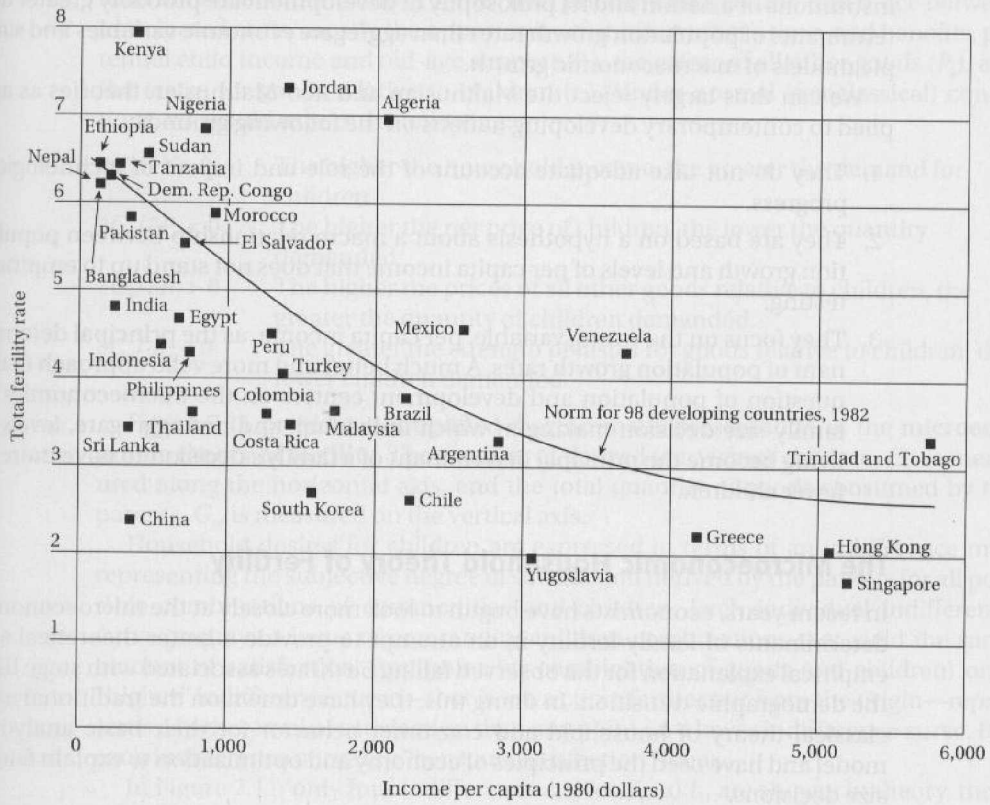


Figure 7.10 Fertility in Relation to Income in Developing Countries



Source: Nancy Birdsall, "Economic approaches to population growth," in Hollis B. Chenery and T. N. Srinivasan (eds.), *Handbook of Development Economics*, vol. 1 (Amsterdam: Elsevier-North Holland, 1988), p. 482. Reprinted with permission.

Note: Total fertility rate and birthrate, though not conceptually the same, are nevertheless highly correlated.

Figure 7.11 Microeconomic Theory of Fertility: An Illustration

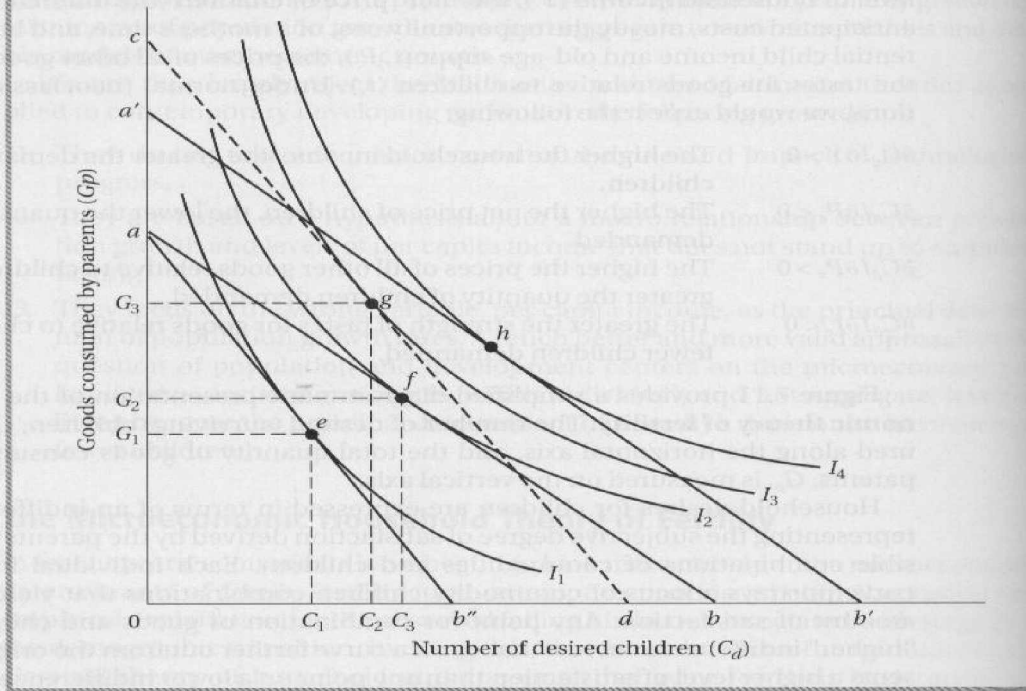


TABLE 7.6 Countries Adopting Family-Planning Programs to Reduce Rates of Population Growth, 1960–1990

Region	Date of Adoption of National Family-Planning Program					
	Before 1960	1960–1964	1965–1969	1970–1974	1975–1979	1980–1990
Asia and Pacific	India	China Fiji South Korea Pakistan	Indonesia Iran Malaysia Nepal Singapore Sri Lanka Taiwan Turkey	Bangladesh Hong Kong Philippines Thailand	Vietnam	Yemen
Caribbean and Latin America			Barbados Dominican Republic Jamaica Trinidad and Tobago	Colombia El Salvador Mexico Puerto Rico	Guatemala	Haiti Honduras Peru Brazil
Africa			Egypt Ghana Kenya Mauritius Morocco Tunisia	Botswana		Algeria Burundi Gambia Lesotho Rwanda Senegal Uganda Zimbabwe
Totals	1	4	18	9	2	13

Source: Population Council, *Data Bank, 1992* (Washington, D.C.: Population Council, 1992).