

## Types of Societies

We consider six broad types of human societies defined by the technologies each employs to produce food and exploit resources. The six societies are hunting and gathering, pastoral, horticultural, agrarian, industrial, and postindustrial. Each of the six is distinguished by the amount of surplus wealth that the people living in them are able to produce. **Surplus wealth** is a situation in which the amount of available food items and other products exceed that which is required to subsist, or to meet basic needs for human survival.

### Hunting-and-Gathering Societies

Hunting-and-gathering societies do not possess the technology that allows them to create surplus wealth; people subsist on wild animals and vegetation. As the name suggests, hunters and gatherers do not reside in a fixed location; they are always on the move, securing food and other subsistence items. A typical hunting-and-gathering society is composed of 45 to 100 members related by blood or marriage. The institution of family is central to people's lives, and emphasis is placed on group welfare (Massey 2002). The division of labor is simple, and most people engage in activities related to achieving what they need to survive. The statuses people occupy revolve around gender, age, and kinship. Hunting-and-gathering societies do not view land and the natural resources as things individuals own but rather as a communal resource to be shared. Because almost no surplus wealth exists, there is little inequality.

Basic economic tasks for men might include carpentry, hunting, and fishing. For women, they might include weaving, cloth making, and oil making. Women also do routine fishing or hunting for small prey (Cote 1997). There is evidence that women work longer hours than do men and their direct contribution to subsistence surpasses that of men. Men are off hunting large animals, for example, while women gather most of the food and hunt smaller animals.

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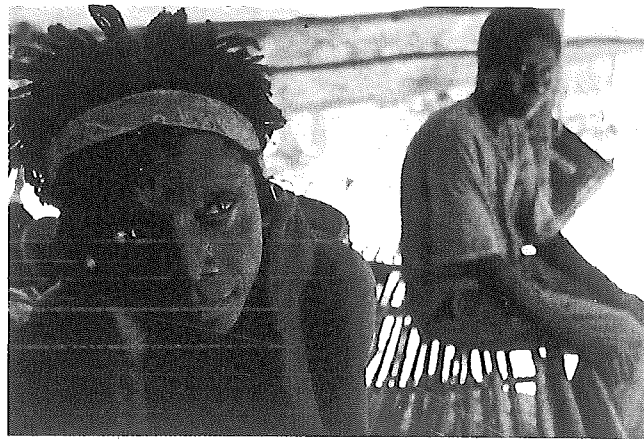
**economic system** A socially created institution that coordinates human activity in the effort to produce, distribute, and consume goods and services.

**goods** Any product that is extracted from the earth, manufactured, or grown, such as food, clothing, petroleum, natural gas, automobiles, coal, computers, and so on.

**services** Activities performed for others that result in no tangible product, such as entertainment, transportation, financial advice, medical care, spiritual counseling, and education.

**surplus wealth** Wealth beyond what is needed to meet basic human needs, such as food and shelter.

**domestication** The process by which plants and animals were brought under human control.



REUTERS/Sucheta Das/Landov

There are five hunting-and-gathering tribes living on the remote islands of Andaman and Nicobar off India's shores. Often when hearing such societies exist, many people think them primitive rather than respecting them for their skills at living without advanced technology and without a centralized government. However, the tribes on these islands anticipated the 2005 tsunami that killed several hundred thousand people and displaced 1.6 million in South and Southeast Asia. They knew to move to higher ground days before the tsunami occurred (U.S. Geological Survey 2011, *India Daily* 2005).

Sociologist Douglas Massey (2002) predicts that the last hunter-gatherers on the planet will cease to exist by 2020, ending six million years of dedication to "the most successful and long-persistent lifestyle in the career of our species" (Diamond 1992, p. 191). It may already be impossible to find a society today that meets all its needs from hunting, gathering, and fishing. For example, in India, there are an estimated 150,000 largely forest-dwelling peoples officially classified by the government as "primitive tribal groups." While these groups derive their subsistence from foraging, they also engage in some trade with outsiders to obtain products such as salt, iron, or cooking utensils (Fortier 2009, Heitzman and Worden 1995).

### Pastoral and Horticultural Societies

About 10,000 to 12,000 years ago, humans began domesticating plants and animals. **Domestication** is the process of bringing plants and animals under human control. Now instead of searching for and gathering wild grains and vegetation, people planted seeds and harvested crops. This change allowed for a more predictable food source and made it possible to produce more grain than people needed just to survive. Surplus food gave some people the freedom to spend time on pursuits other than securing subsistence, such as making vases to store food. The excess grain supported the domestication of cattle, oxen, and other animals, because enough food was available for animals as well as people. Domestication reduced the need to hunt for animals. Now, people captured, tamed, and bred them. Domesticated animals carried heavy loads, guarded sheep, and so on.

Domestication is the hallmark of two types of societies: pastoral and horticultural. Pastoral societies rely on domesticated herd animals to subsist. People living in deserts and other regions in which vegetation was limited adopted pastoralism. Those able to acquire and manage the largest herds assumed powerful statuses and passed their advantaged positions on to their children, creating hereditary-based political systems.

Most pastoral peoples are nomadic, moving their herds when grazing land and/or water sources are depleted. Even though they may be on the move, pastoralists are able to accumulate possessions such as tents, carpets, bowls, and other cultural artifacts, because now they have animals to carry those possessions. In the course of their travels, pastoralists encounter other nomads and settled peoples with whom they trade and/or fight to secure grazing land. The statuses people occupy revolve around gender, age, and kinship, but material possessions and success in conflicts are now also important to determining status.

People who live in horticultural societies rely on hand tools such as hoes to work the soil and digging sticks to punch holes in the ground into which seeds are dropped. Horticultural peoples grow crops rather than gather food and employ slash-and-burn technology in which they clear land of forest and vegetation to make fields for growing crops and grazing animals. When the land becomes exhausted, people move on, repeating the process. In contrast to pastoralists, horticultural societies are relatively settled, with their members migrating to new locations only after the soil is depleted. The horticultural system offers a level of predictability and residential stability that gives people the incentive and means to create surplus wealth, including houses, sculptures, and jewelry. The creation of surplus wealth is accompanied by

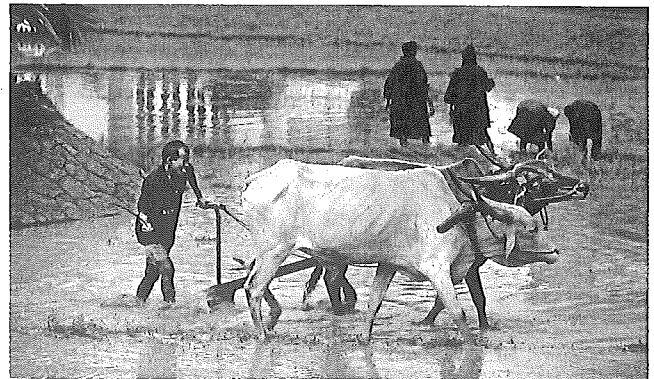


Barbara Houghton

In the context of contemporary India, pastoralists are defined as those groups in which at least 50 percent of their household consumption derives from the livestock they keep and breed. In addition at least 90 percent of what livestock consume comes from grazing in pastures (Sharma, Köhler-Rollefson, and Morton, 2011).



Lt. Cmdr. Chuck Bell



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The major agricultural revolution that launched agrarian societies occurred around 5000 B.C., with the invention of the scratch plow (still used in some parts of the world); its forward-curving blade cut deep into the soil, bringing nutrients to the surface and turning weeds under. The plow was a great advance over hoes (top). The plow supported permanent settlements because farmers and their descendants could replenish the soil by turning it under year after year (Burke 1978, p. 9).

conflict over available resources and by inequality with regard to its distribution.

### Agrarian Societies

The invention of the plow 6,000 years ago triggered a revolution in agriculture and marked the emergence of agrarian societies built on the cultivation of crops using plows pulled by animals to achieve subsistence. The plow made it possible to cultivate large fields and increase food production to a level that could support thousands to millions of people, many of whom lived in cities and/or were part of empires. Although the plow was a significant invention, planting and harvesting food still depended largely on human and animal muscle.

Agrarian societies are noted for dramatic inequality; power is concentrated in a hereditary monarch such as a king, queen, or emperor. Monarchs hold absolute power over their subjects, who for the most part do not question

such power. In agrarian societies, there is a small number of landowning elites and large numbers of people known as serfs, peasants, or enslaved. There are also small numbers of merchants, traders, and craftspeople. In addition to dramatic inequality, agrarian societies are often engaged in wars to protect and/or expand their territory and to exercise control over resources.

Once the plow created surplus wealth, that wealth, along with a newfound ability to shape metal into weapons and blades, is believed to have changed the status of women relative to men in dramatic ways. As surplus wealth and populations increased in size, warfare between peoples fighting over land and resources became commonplace. The invention and proliferation of metal weapons supported empires, and military forces were created to advance and protect the interests of the political elite. The military excluded women, who spent much of their reproductive life pregnant or nursing, to offset the high death rates and low life expectancy (Boulding 1976).

Women's status was reduced in yet another way. The plow increased the amount of land that could be cultivated and by extension it increased the amount of food produced. It was men who operated the plows and managed heavy draft animals in fields away from home. Women's reproductive lives and caretaking responsibilities, in conjunction with the efficient technology men operated, made it difficult for women to outproduce men. As a result, women's share of the production diminished and their status eroded. Now women were left "with all the subsidiary tasks, including weeding and carrying water to the fields. The new fields were larger so women had to work just as many hours as they did before but at more secondary tasks" (Boulding 1976).

Much of India's agricultural sector qualifies as agrarian even after undergoing a Green Revolution, a plan to relieve chronic food shortages and help the country become self-sufficient in food production by constructing irrigation systems and investing in agricultural technologies, including hybrid seeds, pesticides, and fertilizers (Derdak 1988). The government encouraged chemical companies such as Union Carbide to locate in the country and to use local labor and regional raw materials, thereby creating other employment opportunities. The manufactured chemicals were used to prevent malaria and other insect-borne diseases and to protect crops and harvests from insects, rodents, and diseases. Agricultural yields were indeed impressive; India is now the second largest grain producer in the world, but ironically, India's farms still largely depend on manual labor.



Keith Farley

Today in India, 51 percent of the labor force is employed in the agricultural sector. Although this sector has been shaped by a number of agricultural revolutions, most notably the Green Revolution in the 1960s and 1970s, India has few highly mechanized farms or agribusinesses that can manage thousands of acres of food crops (Bajaj 2011).

### Industrial Societies

Industrial societies rely on mechanization or on machines powered by burning wood and fossil fuels. Mechanization allowed humans to produce food, extract resources, and manufacture goods at revolutionary speeds and on an unprecedented scale. Eventually mechanization allowed a small percentage of the population to grow the food needed to sustain a society that could encompass hundreds of millions of people. Mechanization changed everything: how goods were produced, how people negotiated time and space, the relationships among geographically distant peoples, how people made their livings, the density of human populations, the relative importance and influence of the home in people's lives, and the proportion of people with access to formal education. The products of industrialization improved nutrition and living standards, which increased human life expectancy, decreased fertility, and lowered death rates (Massey 2002).

If we study patterns of conflict in the world, we can see that as countries industrialized they used their technological advantages and military strength to invade and control people they labeled as backward or primitive. In this regard, the Industrial Revolution cannot be separated from **colonization**. The Industrial Revolution and colonization forced people from even the most remote parts of the world into a production process that manufactured unprecedented quantities of material goods, primarily for the benefit of the colonizing countries. Consider as one measure of the extent of colonization that during the twentieth century, 130 countries gained independence from their "mother" countries. One of these countries was India, which was considered the "crown jewel" of the British Empire (see Global Comparisons).

**colonization** A form of domination in which a foreign power imposes its political, economic, social, and cultural institutions on an indigenous population to control their labor, resources, and markets.

The Industrial Revolution allowed people to create surplus wealth so large that it could support a diverse economy and many institutions, including education, medicine, sports, government, and so on. The mass production of goods allowed people not only to buy products that distinguished them from others but also to buy more products than they needed, creating great social differences among people. On the one hand, industrialization allowed many more people to experience a high standard of living and social mobility. On the other hand, it created dramatic inequalities in material wealth, especially between those in the richest 10 percent and the bottom poorest 20 percent (Massey 2002).

**Postindustrial Societies** Over the course of human history, people have spent 300,000 generations as hunter-gatherers, 500 generations as agrarians, 9 generations in the industrial era, and only 1 generation in the postindustrial era (Massey 2002). Sociologist Daniel Bell (1999) defined the **postindustrial society** as one that relies on intellectual technologies of telecommunications and computers. According to Bell, this intellectual technology encompasses four interdependent revolutionary innovations: (1) electronics that allow for incredible speed of data transmission and calculations, which can be made in nanoseconds; (2) miniaturization or the drastic reduction in size of electronic devices; (3) digitalization, which allows voice, text, image, and data to be integrated and transmitted with equal efficiency; and (4) software applications that allow people to perform a variety of tasks and generate a variety of simulated experiences. Intellectual technologies are driven by the microchip, the brain of many electronic products, including computers, cell phones, cameras, iPods, and televisions. Microchips run pacemakers and mechanical hearts. They are installed in microwave ovens and cars. Microchips control the deployment of air bags, the movement of artificial limbs, and much more.

According to Bell, postindustrial societies, built upon these intellectual technologies, are distinguished by

- A substantially greater share of the working population employed in service, sales, and administrative support occupations (in the United States, from 29 percent in 1950 to 41 percent in 2010);
- An increased emphasis on education as the avenue of social mobility (in the United States, in 1950, 6 percent of the population had at least a four-year college degree; in 2010, 28 percent did);

**postindustrial society** A society that is dominated by intellectual technologies of telecommunications and computers, not just “large computers but computers on a chip.” These intellectual technologies have had a revolutionary effect on virtually every aspect of social life.



Chris Caldera

This aisle in a retail store illustrates the degree of mass production and consumption made possible by industrialization. Under industrialization, a larger share of the masses, not just an elite few, consumed more products than they needed to live a comfortable life.

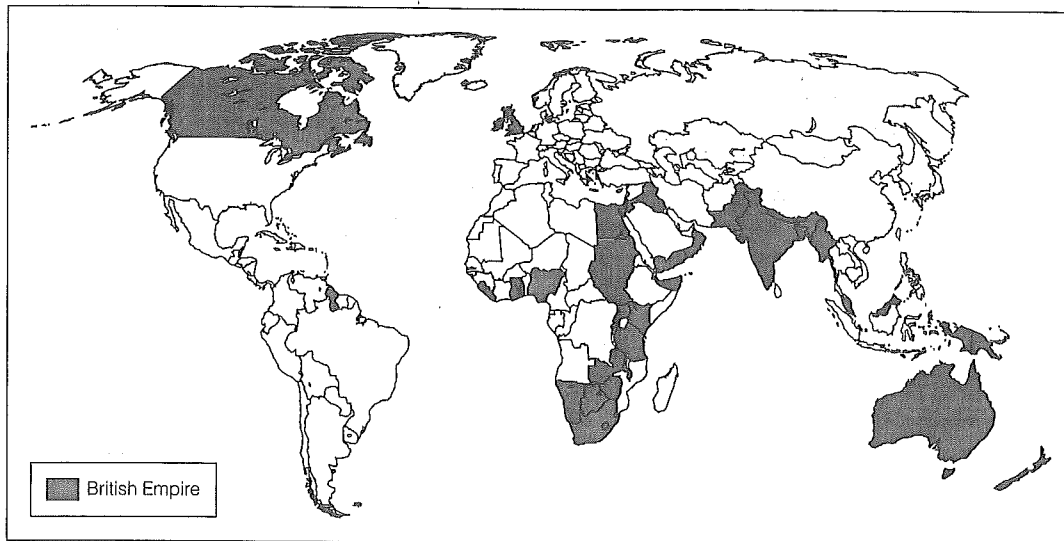
- A recognition that capital is not only financial but also social (that is, access to social networks serves as an important source of information and opportunity);
- The dominance of intellectual technology grounded in mathematics and linguistics that takes the form of what are known as apps;
- The creation of an electronically mediated global communication infrastructure that includes broadband, cable, digital TV, optical fiber networks, fax, email, and integrated system digital networks (ISDN); and
- An economy defined not simply by the production of goods but by applied knowledge and the manipulation of numbers, words, images, and other symbols.

What do these changes mean? In answering this question, keep in mind that Bell does not believe that technology determines the nature of any social change. Rather, it is the ways people choose to use and respond to the technology that shapes social change. Although it is virtually impossible to catalog all the changes associated with the intellectual technologies, they have (1) sped up old ways of doing things; (2) given individuals access to the equivalent of personal libraries, publishing houses, and production studios; (3) changed how people learn; and (4) permitted real-time exchange of information on a global scale. Although computer software and telecommunications technologies have increased the speed of information generation and exchange, people must still read, discuss, and contemplate the information to give it meaning. These activities are very slow compared with the speed at which the information is generated.

Relative to other types of societies, the postindustrial society presents its members with a distinct set of challenges. The communication infrastructure multiplies the interactions (however superficial and fleeting) between



## Global Comparison World Map of the British Empire and Commonwealth

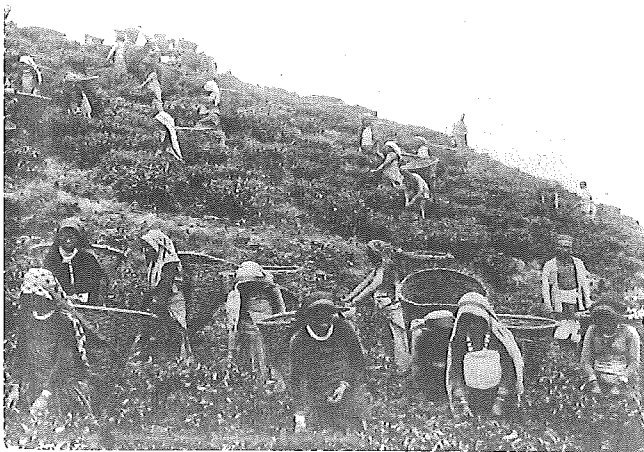


**FIGURE 11.1** The territories the map shows in red were part of the British Empire and Commonwealth when it was at its peak in the 1930s. The British Empire lasted 350 years; at its peak, it controlled (on some level) 25 to 30 percent of the world's land and 25 percent of its population.

Source: Data from U.S. Central Intelligence Agency (2011)

Initially, the British Empire exploited India's raw materials, labor, and territory through the East India Company, a company so powerful that it possessed its own army that was larger in size than the British Army. But eventually the fortunes of the East India Company and Great Britain became so intertwined that nation and company moved in tandem with one another (Bowen 2000). The East India Company established its first factory in India in 1600. It was

not until 1857 that the British government dissolved the company and took control of India until its independence in 1947. At independence, India was left with a population that was ranked among the poorest in the world, with an inadequate infrastructure, a failing industrial sector, an inability to grow enough food to sustain its large and rapidly increasing population, high illiteracy, and an unskilled labor force (Datt and Sundharam 2009).

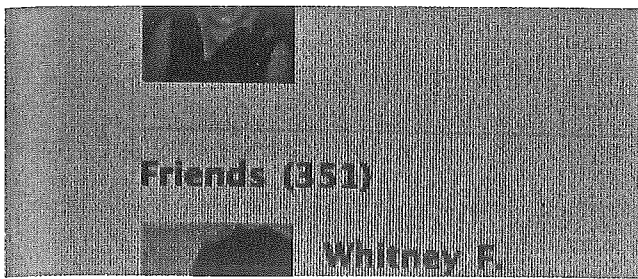


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The British Empire used its vast empire of colonies to supply the world with goods: "the gold and diamonds of South Africa; the wood, wheat, butter, and meat of Australia; the wheat, fish, and timber of Canada; the sugar of the West Indies; the rubber and tin of Malaysia; the wheat, cotton, jute, rice, and tea of India" (Demangeon 1925, p. 14).



Chris Caldera

The distinguishing feature in the postindustrial society is “the enlargement of an individual’s world” or the “tremendous change of scale” in the number of people one knows or can know (Bell 1976, p. 48). Although 351 friends may not seem an extraordinary number today, before Facebook and the Internet, few people could have imagined keeping track of the daily activities of 351 people.

people, making interpersonal relationships a primary focus of one’s thoughts and actions. That focus is complicated by the fact that we leave records of most transactions, whether they are related to banking transactions or to the day and time of day a text message was sent.

The IT and business services sector of the Indian economy qualifies as postindustrial. India is the best known destination for European and American business process outsourcing (BPO) and IT services. By one estimate, 2.54 million people in India are employed by this sector (Ribeiro 2011). A large portion of the work outsourced falls under the category “low value,” such as call center operators, a job that does not require specialized knowledge. However, some of the fastest growth involves work requiring graduate-level education in medicine, engineering, and the law. Law firms in the United States, for example, have already outsourced document review, legal research, and proofreading and are now moving toward outsourcing work to be performed by Indians with law degrees from some of the best U.S. and European universities (Ridge 2011). In evaluating the latest high-skill outsourcing trends, keep in mind that, after China, India sends the greatest number of students (105,000 in 2009) to the United States to study in its colleges and universities. Each year, the United States awards the largest number of new H1B visas to foreign workers from India. In 2010, that number was almost 30,000, about 20 percent of all such visas awarded (Homeland Security 2011).

In his book *Dead Ringers*, sociologist Shezad Nadeem (2011) described outsourcing as including international news agencies outsourcing basic business coverage; legal firms outsourcing draft patents; hospitals outsourcing X-rays, MRIs, and CT scans to be read; movie production companies outsourcing special effects scenes; insurance companies outsourcing insurance claims to be evaluated and processed; and much more. We also cannot forget

medical services, including joint and heart valve replacements, dental work, and Botox injections, for wealthy tourists.

## Major Economic Systems

**CORE CONCEPT 2** The world’s economic systems fall along a continuum whose endpoints are capitalism and socialism in most pure forms.

No economy fully realizes capitalist or socialist principles. The capitalist and socialist principles described here represent economic ideals, or the standards against which real economic systems can be compared.

### Capitalism

**Capitalism** is an economic system in which the raw materials and the means of producing and distributing goods and services remain privately owned. This economic system is profit driven and free of government interference. Private ownership means that individuals (rather than workers, the government, or communal groups) own the raw materials, machines, tools, labor, trucks, buildings, and other inputs needed to produce and distribute goods and services. Profit-driven is the most important characteristic of capitalist systems. In such systems, those who own and manage the means of production and distribution are driven to continually increase and maximize profits. Profit motivates owners in their quest to maximize the return on their investment, to make the most efficient use of labor and resources. Theoretically, production and distribution are consumer-driven.

Capitalist systems are governed by the laws of supply and demand; that is, as consumer demand for a product or service increases, its price rises. Manufacturers and service providers respond to this demand by increasing production, which in turn “increases competition and drives the price down” (Hirsch, Kett, and Trefil 1993, p. 455). Although most economic systems in the world are classified as capitalist, in reality, no system fully realizes capitalist principles. Simply consider that 90 percent of home mortgage loans in the United States flow through two government-created corporations known as Fannie Mae and Freddie Mac, all backed by the U.S. federal government. To put it another way, the \$1.5 trillion U.S. mortgage market is a taxpayer-owned industry (Blumberg 2011).

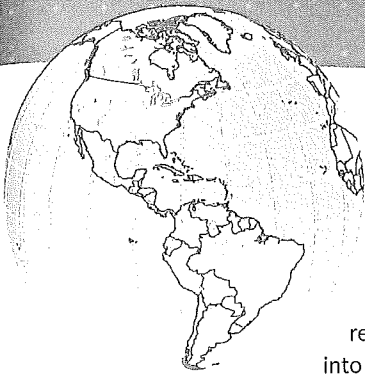
Karl Marx, who was considered a student of capitalism, believed that it was the first economic system that could

**capitalism** An economic system in which the raw materials and the means of producing and distributing goods and services remain privately owned.

**Video Tip:** The documentary, *The Other Side of Outsourcing*, considers outsourcing in the

context of Indian culture and larger economic structure. It can be accessed on YouTube.

How many children do you think you would have if, in a given year, there is a one in 50 chance of dying in childbirth? These odds apply to Sierra Leone. You might be surprised to learn that women at the greatest risk of dying in child birth also have the most children; on average, as many as seven or eight. But what if the odds of dying in childbirth were virtually zero, as is the case in Ireland and Sweden? How might you feel about having children? Chances are you would have two or fewer children. Moreover, the chances that an Irish or Swedish woman between the ages of 40 and 44 is childless ranges from 15 and 30 percent (OECD 2010). The point is that knowing the chances of surviving childbirth offers broader insights about how people, especially women, see themselves and plan their futures.



## Why Focus On EXTREME CASES?

Births, deaths, and migration are key experiences, not just for individuals but also for societies. Births represent the entry of new members into society; deaths represent their exit.

Migration involves leaving one society for another. In this chapter, we focus on these three key experiences and pay special attention to countries where births, deaths, and migration occur at the highest and lowest rates. Specifically, we compare the countries that experience the highest and the lowest

- birth rates, including the teen birth rate;
- death rates including infant, maternal, and overall death rates; and
- migration rates, including the rates of migration into and out of the country.

We emphasize extreme cases because doing so allows us to frame the end points on the continuum of human experience.

Generally, being at the extreme ends of an experience suggests vulnerability and sometimes special advantage. As one example, the teen birth rate in Niger is 199 of 1,000 teens and that rate is 1.2 in 1,000 teens in South Korea. On the surface, these birth rates might just seem like numbers with little human significance. But actually, knowing these rates allows us to think deeply about what personal lives are like and how a society is organized. For example, if we know the teen birth rate in Niger is 199 per 1,000 teens, we know that *each year* there are 199 births for every 1,000 teen females. To put it another way, each year, 20 percent or 1 in 5 teens have a baby. If we know that the teen birth rate in South Korea is 1 in 1,000, we know that each year there is 1 birth for every 1,000 teen females. What do these rates suggest about the lives of females who are teenagers in each country? If you were a teenage girl, how might you think about the future if you lived in Niger versus South Korea? The point is that knowing rates allows us to think more deeply about our own and others' lives.

### Online Poll

How many children do you think you would have if you knew that 1 in 50 mothers die in childbirth each year?

- None
- One
- Two
- Three or more

To see how other students responded to these questions, go to [www.cengagebrain.com](http://www.cengagebrain.com).

## The Study of Population

**CORE CONCEPT 1** Demography, a subspecialty within sociology, focuses on births, deaths, and migration—major factors that determine population size and rate of growth.

**Demography** focuses on human populations and their characteristics, including size and rate of growth. Most organizations—private, public, and governmental—have an interest in knowing population characteristics, if only for planning purposes. For example, school officials need to know the size of the school-age population and whether,

on the basis of births and in-migration, it is projected to decline or increase in coming years. These projections will affect decisions to expand or consolidate the number of schools. Health care planners need to know the size of the population age 65 and older and whether it is projected to decline or increase, as this age group has some of the greatest health care needs (see Working for Change).

The size and growth of a population depend on three key events—births, deaths, and migration. In the pages that follow, we will consider these population-related characteristics and how each is expressed as rates, giving special attention to extreme cases as endpoints on the continuum of human experiences (for example, the teen birth rate range from a low of 1.2 in 1,000 teens in South Korea to a high of 199 per 1,000 teens in Niger). Later in the chapter, we will learn the reason for very low and very high rates.

### Births

Births add new people to a population. Each year, the world adds approximately 134 million people. For comparison, demographers often convert the number of births into a crude birth rate. The **crude birth rate** is the annual number of births per 1,000 people in a designated area. From a global perspective, the crude birth rate is 19.5 births for every 1,000 people in the world. The country with the highest crude birth rate is the African country of Niger, where each year there are approximately 51.4 births for every 1,000 people. The country with the lowest crude birth rate is Japan, with an annual birth rate of 7.3 births per 1,000 people. To calculate the birth rate, we divide the number of births in a year by the size of the population living in the geographic area of interest at the onset of that year and then multiply that figure by 1,000.

Sometimes demographers want to know age-specific rates for a specific age cohort within the population. Of particular interest is the teenage birth rate, the number of babies born each year to women who are in their teens. We have already learned that the country with the highest teen birth rate is Niger (199 babies for every 1,000 teens). So over the course of a year, 19.9 percent of teens give birth to a

**demography** A subspecialty within sociology that focuses on the study of human populations and their characteristics, including size and rate of growth.

**crude birth rate** The annual number of births per 1,000 people in a designated geographic area.

**total fertility rate** The average number of children that women in a specific population bear over their lifetime.

**crude death rate** The annual number of deaths per 1,000 people in a designated geographic area.

**infant mortality rate** The annual number of deaths of infants 1 year old or younger for every 1,000 such infants born alive.



The average woman in the world bears 2.5 children over her lifetime. But the total fertility rate for a country ranges from 1.15 in China to 7.7 children in Niger.

baby. We have also learned that South Korea has the lowest teen birth rate, which is 1.2 babies per every 1,000 teens.

In addition to the birth rate, demographers are interested in the **total fertility rate**, which states the average number of children that women bear over their lifetime. The average woman in the world bears 2.5 children over the course of her reproductive life. The country with the highest total fertility rate is Niger with 7.7 children; the country of China has the lowest rate (1.15 children).

### Deaths

Deaths reduce the size of a population. Each year, the planet loses about 56.2 million people to death. This loss is often expressed as a rate. The **crude death rate** is the annual number of deaths per 1,000 people in a designated area. Like the crude birth rate, it is calculated by dividing the number of deaths in a year by a designated area's population size at the onset of that year and then multiplying that number by 1,000. The country with the highest death rate in the world is Angola with 23.4 deaths per 1,000 population, and the country with the lowest death rate is United Arab Emirates with a death rate of 2 deaths per every 1,000 people.

As with birth rates, we can calculate the death rates for specific segments of the population, such as for men, for women, or for specific age categories such as 1 year olds or younger. The death rate among those 1 year old or younger is called the **infant mortality rate**. Infant mortality is calculated by dividing the number of deaths among those 1 year old or younger by the total number of births in that year and then multiplying that result by 1,000. The



The U.S. Bureau of the Census serves as the leading source of quality data about the nation's people and economy. In collecting that data, the census bureau honors privacy, protects confidentiality, shares its expertise globally, and conducts its work openly. Among other things, the information gathered allows us to know how many people were born since the last census, moved from one location to another within the United States, and moved into the United States from a foreign country, as well as the age-sex composition of the population. The Bureau of the Census normally employs nearly 12,000 people, but it temporarily expands its workforce by about 800,000 when the census is taken every ten years. Some of its most important data products are:

- Population and Housing Census—every 10 years
- Economic Census—every 5 years

infant mortality rate for the world is 41.6 deaths before age 1 for 1,000 babies born. The highest infant mortality in the world is Angola, with 175.9 deaths per 1,000 babies born; the lowest infant mortality is in Sweden where 2.7 babies die per 1,000 born before reaching age 1. The maternal mortality rate is also an important indicator of well-being. **Maternal mortality** is the death of a woman, while pregnant or within 42 days of a termination of pregnancy, from any cause related to or aggravated by pregnancy or the way it is managed (World Health Organization 2011). The country with the highest maternal mortality rate is Sierra Leone, with 199 deaths per 1,000 pregnancies. Sweden has the lowest rate, 5 deaths per 1,000 pregnancies.

### Migration

**Migration** is the movement of people from one residence to another. Demographers use the term **in-migration** to denote the movement of people into a designated area and the term **out-migration** to denote the movement of people out of a designated area. That movement increases population size if the people are moving in, or reduces the population size if they are moving out. Sociologists calculate the **net migration**, the difference between the number moving into an area and the number moving out. This difference is typically converted into a rate by dividing that difference by the size of the relevant population, and then multiplying the result by 1,000. We can calculate the **migration rate** for towns, cities, counties, states, countries, or any other region of the world. The country with the highest net migration rate in the world is Zimbabwe; its rate is +24.8 per 1,000 residents, which means that 24.8 more people moved into the country than moved out for

- Census of Governments—every 5 years
- American Community Survey—annually

The data collected has many uses, including to determine the distribution of congressional seats to states as mandated by the U.S. Constitution; to apportion seats in the U.S. House of Representatives; to define legislature districts, school district assignment areas, and other important functional areas of government to make decisions about services for the elderly; to define where to build new roads and schools; and where to locate job training centers. Census data affects how funding is allocated to communities' neighborhood improvements, public health, education, transportation, and much more.

Source: U.S. Bureau of the Census 2011.

every 1,000 residents who lived there. The country with the lowest net migration is Jordan with a rate of -14.3, which means that 14.3 more people moved out of the country than moved in for every 1,000 residents.

Migration results from two factors. **Push factors** are the conditions that encourage people to move out of an area. Common push factors include religious or political persecution, discrimination, depletion of natural resources, lack of employment opportunities, and natural disasters (droughts, floods, earthquakes, and so on). A dramatic example of a push factor was the 2005 Hurricane Katrina, which pushed 60 percent of New Orleans's population out of the city, changing the city's size from 454,863 to

**maternal mortality rate** The death of a woman while pregnant or within 42 days of a termination of pregnancy from any cause related to or aggravated by pregnancy or the way it is managed (World Health Organization).

**migration** The movement of people from one residence to another.

**in-migration** The movement of people into a designated area.

**out-migration** The movement of people out of a designated area.

**net migration** The difference between the number moving into an area and the number moving out.

**migration rate** A rate based on the difference between the number of people entering and the number of people leaving a designated geographic area in a year. We divide that difference by the size of the relevant population and then multiply the result by 1,000.

**push factors** The conditions that encourage people to move out of a geographic area.

Teaching Tip: Take some time to show students the U.S. Bureau of the Census website,

specifically the wealth of national, and even international data, available at [www.census.gov/](http://www.census.gov/).

## The Sociological Imagination Moving to the United States from Liberia

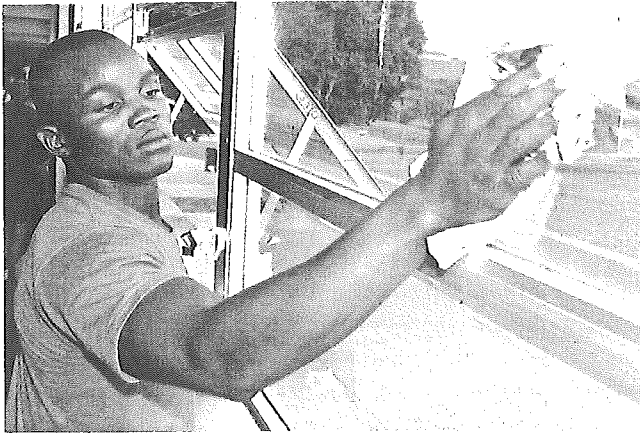


Photo by Lance Cpl. Dorian Gardner, USMC

More than 33,000 non-U.S. citizens are serving in the U.S. military, which means that each immigrated to the United States at some point in life. One among the 33,000 is a Liberian native named Nimley Tabue. Tabue's parents came from different tribes. He said his parents' tribal differences did not affect his family until a war between the tribes erupted in 1989. "My father refused to kill, so (rebels) tried to kill him," Tabue said.

Tabue remembers fleeing through the country for three days as a child. "We stopped by a river once to get some water," said Tabue, who was with his mother and siblings at the time. "I held my 4-month-old brother in my arms as he died." According to Tabue, his father, Aloysius Tabue, traveled to America searching for ways to improve his family's life, and he called home often. "I learned about the Marines from my father," Tabue said. "He would say, 'If you guys come over here, make sure you do something with

your life. The Marines will give you something no other service can.'"

Because of the ongoing war around him, school became less of a priority, and Tabue was taken out of school following the second grade. He, along with his mother and sister, came to Chicago to live with his father. At 12 years old, Tabue jumped back into the school swing. But after four years without touching a book, school presented a new challenge. "I forgot how to do math, and my English was bad," Tabue said. "I had to go to school over the summer and take extra classes."

After years of extra classes, Tabue's name was added to the high school honor roll. Tabue had not planned on leaving Chicago, but he remembered what his father had always told him about the Corps. "He told me, 'This is where they separate the men from the boys,'" Tabue said. Adjusting to boot camp was harder than any English class. "The first day was horrible. I almost lost my temper when the drill instructor got in my face . . . But I told myself it was just a mind game . . . I had trouble speaking in third person (as required in boot camp). Instead of saying 'This recruit requests permission to use the head,' I would say, 'I would like to use the head.' Drill instructors didn't really like that." When the Crucible—the grueling 54-hour field exercise that is the culmination of boot camp—came, Tabue found his role in the platoon. "He stepped up," Nofziger said. "He wasn't a squad leader, but he acted as one." After Marine Corps recruit training, Tabue will become a mortarman in the Marine Corps Reserve. He said he'll be ready to fight.

From: "West African Immigrant Heeds Father's Words, Joins U.S. Marines" by Lance Cpl. Dorian Gardner, USMC Special to American Forces Press Service.

187,525 overnight (U.S. Department of Homeland Security 2006). If we consider the entire Gulf Coast population, the number of people pushed out of the area exceeds one million (Nossiter 2006).

**Pull factors** are the conditions that encourage people to move into an area. Common pull factors include employment opportunities, favorable climate, and tolerance

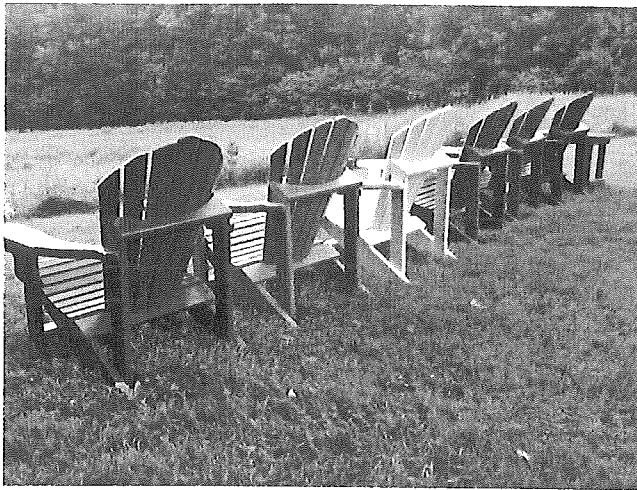
for a particular lifestyle. Migration can be placed into two broad categories: international and internal (see *The Sociological Imagination: "Moving to the United States from Liberia"*).

**International Migration** International migration involves the movement of people between countries. In reference to international migration, demographers use the term **emigration** to denote the act of *departing* from one country to take up residence elsewhere, and the term **immigration** to denote the act of entering one country after leaving another. Most governments restrict the numbers of people who can immigrate. Sometimes governments encourage the immigration of certain categories of people, such as nurses, to fill occupations characterized by a shortage of workers.

**pull factors** The conditions that encourage people to move into a geographic area.

**emigration** The act of departing from one country to take up residence elsewhere.

**immigration** The act of entering one country after leaving another.



Chris Caldera

Pull factors are those qualities that draw people into a geographic area to live. San Francisco has established a reputation of being a gay-friendly city. That friendliness is symbolized by the prevalence of colors associated with gay pride.

**Internal Migration** In contrast to international migration, **internal migration** involves movement of people within the boundaries of a single country—from one state, region, or city to another. One major type of internal migration is the rural-to-urban movement (urbanization) that accompanies industrialization.

The United States is a country characterized by high rates of internal migration. Consider that each year about 37.1 million Americans move (change residences). About 67 percent of that number moves from one residence to another within the same county. Approximately 17 percent move from one county to another within the same state. Another 12.6 percent (4.7 million people) move from one state to another (U.S. Bureau of the Census 2010).

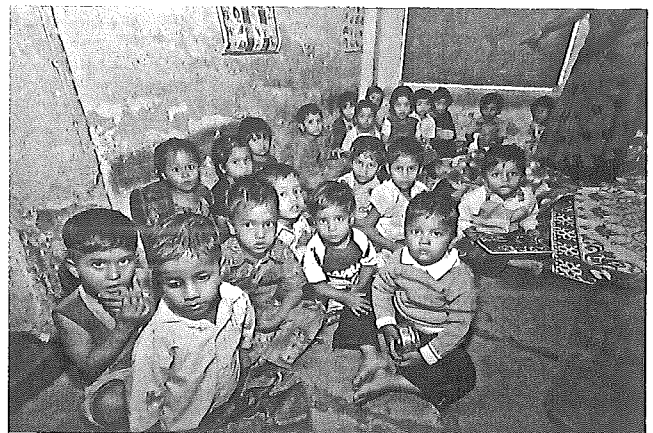
### Population Size and Growth

The population size of a geographic area constantly changes, depending on births, deaths, and migration flows. About 7 billion people live on planet Earth, and the world's population is distributed unevenly (see Table 15.1). Table 15.1 shows the ten most populous countries in the world. Two countries, China and India, top the list. Taken together, the two countries account for 36 percent of the world's population. The United States is the third most populous country in the world, with 313 million people.

Demographers calculate annual growth in population size according to the following formula: (number of births – number of deaths) + (in-migration – out-migration). Each year the planet increases its population size by approximately 77.8 million. That is, there is 77.8 million more births than deaths. Migration is not a factor in figuring *world* population growth because people cannot move off the planet unless we count the handful of people working in outer space who will eventually return to Earth.

To determine the rate of world population growth, simply divide the amount of change in population size over the course of a year by the population size at the beginning of the year. Using this formula, the annual growth rate for the planet is 1.1 percent. The country with the highest annual growth rate is Zimbabwe; its population size increased by 4.3 percent. The country with the lowest growth rate is Bulgaria; its population size declined by –.78 percent. Keep in mind that the growth rate is relative to the size of an existing population so often the country with the highest growth rate is not the country that adds the greatest number of people to its population over the course of a year. The country that adds the largest number of people per year is India—it adds about 15.9 million people per year. Given the size of India's population, that country's population growth rate is 1.3 percent.

**Doubling time** is the estimated number of years required for a country's population to double in size. India, with a population growth rate of 1.3 percent, will double its population of 1.2 billion in about 51 years. The United States, with a natural growth rate of 1.0 percent, will double its population in about 78 years. Figure 15.1 shows world population growth since A.D. 1. Note that the population has doubled five times in the last 2,000 years, and that the time between the doublings has decreased dramatically, even alarmingly.



Barbara Houghton

Each year, India loses almost 9 million people through deaths for a net gain of 15 million people. India has 352 million children age 14 and under—that number is larger than the entire U.S. population. Each year, the country adds 24 million babies to its population (U.S. Bureau of the Census 2011).

**internal migration** The movement of people within the boundaries of a single country—from one state, region, or city to another.

**doubling time** The estimated number of years required for a country's population to double in size.

**Student Activity:** Ask students to think about the town or city in which they live. Have them write a short paper describing what

features might "pull" people to live or visit and the features that might "push" people out or away.

## Global Comparisons The 10 Countries With Largest Populations

**TABLE 15.1** The World's Most Populous Countries, 2011

Rank	Country or Area	Population	% of World's Population
1	China	1,336,718,015	19.1
2	India	1,189,172,906	16.9
3	United States	313,232,044	4.5
4	Indonesia	245,613,043	3.5
5	Brazil	203,429,773	2.9
6	Pakistan	187,342,721	2.7
7	Bangladesh	158,570,535	2.3
8	Nigeria	155,215,573	2.2
9	Russia	138,739,892	2.0
10	Japan	126,475,664	1.8

Source: Data from U.S. Bureau of the Census 2011.

**TABLE 15.2** Population Size and Growth: The Role of Birth, Death and Migration.

This table shows the population size at two points in time; midyear 2010 and midyear 2011 for three countries: (1) India, the country that added the greatest number of people to its population between 2010 and 2011; (2) Zimbabwe, the country that increased its population size by the greatest percentage; and (3) Bulgaria, the country with the greatest percentage decrease in population size. How many births occurred in each country? How many deaths? How many people did each country gain or lose through migration?

		India	Zimbabwe	Bulgaria
Population (Midyear)	2010	1,173,190,000	11,563,000	7,038,000
Births		+24,937,000	+385,000	+66,000
Deaths		-8,895,000	-164,000	-102,000
Net Migration		-59,000	+300,000	-20,000
Population (Midyear)	2011	1,189,173,000	12,084,000	7,094,000
Growth Rate		1.3%	4.3%	-0.8%
Doubling Time		51 years	11.6 years	92.5 years country will disappear

Source: Data from U.S. Bureau of the Census 2011; U.S. Central Intelligence Agency 2011.

## Age-Sex Composition

**CORE CONCEPT 2** The age-sex composition of a population helps demographers predict birth, death, and migration rates.

A population's age and sex composition is commonly depicted as a **population pyramid**, a series of horizontal bar graphs, each representing a different five-year age cohort. A **cohort** is a group of people born around the same time—in this case, within a five-year time frame—who